

# ANNUAL REPORT 2021

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## TO MY SHAREHOLDERS

In case it wasn't already apparent, this time's content is inspired by the 401K filings the SEC requires from publicly traded companies, pitching a narrative to convince shareholders to remain confident whilst fairly disclosing and tackling risks. There are comparatively quite a few new people added to the mailing list this time so let me emphasise that normally the emails have all information inline and are a summary of just the preceding two months.

I really hope this makes logical sense because it's largely been written past bedtime over the span of two weeks, piece by piece.

## COFFEE

Ever since I told my parents I drink alcohol, they voice their disapproval time and again, largely focusing on the associated health impact and question the need for relaxants of the sort. Leaving that debate aside, I think I've never felt coffee impact me quite as strongly as it has on my current trip to Dubai.

I very rarely drink caffeine and so am very susceptible to its effects. Historically I'd have the usual staying awake for ages etc but little in the way of altering my mood. I accidentally had a caffeinated coffee in England earlier this year and I was super excited about life, felt on top of the world. Now in Dubai, I've indulged in South Indian Filter Coffee - a very strong overnight brew with chicory. Halfway through a glass, I can feel my forehead relax and my eyes droop. I almost feel sleepy, although I'm certain I wouldn't actually be able to. I think it induces a state of euphoria and sudden relaxation in a way that coffee never has before, and I feel extremely creative and optimistic whilst in the state. I don't know why it's suddenly changed the impact it has on me but I'm not one to complain - who knows, maybe the place I'm getting it from has something else mixed in. It also acts significantly faster than alcohol ever has, yet my parents seem to have no opposition to this mind-altering substance.

# PEOPLE

## Dunbar

I've been using a system of circles based on (the hotly debated) Dunbar's number- a theory of how many people we can keep track of arising from extrapolating neocortex sizes of other primates. Every other month or so, I'll try filling out a chart similar to the one in Fig. 1. It's surprisingly hard to list 150, although I'm still leaning on saying I'm sure I could if I really tried.

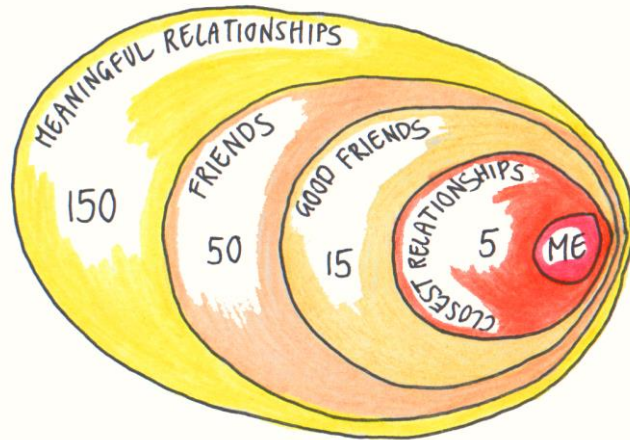


Figure 1: Visualisation of Dunbar's Number. Subtract previous value i.e. good friends contains 10 people.

There are a few guidelines I give myself to follow as I reflect and grade friends into these boxes to keep things consistent. What's been most interesting is how the closest circle of 5 has been the least stable of all this year, with more than one slot remaining vacant time and again, and the circle of 15 remaining the most stable. I'd say people from Manchester (well except Alice but she's from Imperial as well) find themselves somewhere along the 20-150

range, but that's to be expected given it's still super early and given how wonderful some of the Imperial folk are. Reflecting, I also realised that from every prior stage in life, there are a few individuals that maintain at a minimum level no matter how long it's been.

There are also certain people that you always wish well for, even if they aren't super close. Think about it in your own circle for a moment. I think they achieve this by effortlessly combining self-confidence, humility, and a vision for themselves. At times, these people are not close friends. Instead, they leave a lasting impression and they come to mind time and again- they're people I want to get to know more personally. I hope to be able to naturally leave an equally powerful impression with others.

## Temporary

There's a common theme in Bollywood music, happy or sad, centring around the illusory and temporary nature of our world and the relationships in it. It's one I strongly buy in to. Very close people have dropped away in a matter of weeks for reasons unknown or unbelievable to me. Coming to expect it may be seen as sad, but certainly helps push me to keep forming connections.

# TRAVEL

## The Urge to Look Beyond

The most drastic shift in mindset has been to demand more immersive experiences for myself. I was quite satisfied visiting a major city and checking off the main sites. I now demand more. Whilst I'm sure there's exceptions, Tokyo for example, will be quite exciting compared to what I've seen so far probably, cities are all beginning to feel the same.

After my road trip in America, I realised it's the natural vistas I really want to chase. I've only seen the night sky clearly twice as far as I can remember, once aged 7 in Mauritius, and once aged 20 in South Dakota. The challenge lies in transportation. Cities are easy to get to because all roads lead to Rome. Similarly, I've done some solo travelling to cities, but would I feel confident enough to undertake a trip of similar length and intensity as the America one on my own? I'd probably take it as a challenge and go for it, but I know it'd be significantly more taxing knowing I was on my own if something went wrong.

This plays into safety and security as well. I really want to visit South America or the Caribbean at some point, but I know that the approachable and comparatively safe areas in major cities will also have the least to do. Sure, I can chill by a beach in Barbados, but Dubai has me covered there, and reaching Machu Pichu is somewhat more involved.

## Travel Companionship

This looks at the other side of the coin: I've historically not cared if I had friends going with me or not. It was always nicer with, but I'd never stop myself if no one was available, ski trip case in point. After travelling with Madhav though, my mindset has now shifted to recognising the additional value I'd get from spending my time and money with the right people. Schery recently commented what a fun place Dubai looks like. She's not wrong, winter here is stunning, but I replied highlighting that anywhere with the right people is fun.

Who are the right people then? I used to run through the aforementioned circles and see if anyone was free and keen for whatever whack idea I had in mind at the time. People humoured me to various things, and occasionally considered plans in earnest. Lately, I've stopped asking. In part, I reflected on short domestic trips with various friends, and realised that just like co-habitation, friendship is not a guarantee of travel compatibility. In part, I reflected on the fact that on the America trip, Madhav and I had 4 or so mutual friends join us briefly for various stages, and each permutation completely changed the dynamic between all three of us - usually but not always for the better. The permutations are endless, but time and

money are not. Really, anyone is a great companion for travel if you want to really test the relationship's dynamic.

## UNCERTAINTIES

As may be expected, I'm concerned about setting myself on the right career path, and by extension life path. To a lesser extent, I'm beginning to recognise it's been some time since I've had a solid crush. Perhaps randomly, my grandmother also continually asks about both these points.

### Attraction

I have to be careful what I say here. It's been some time since I've been in a relationship. My year of near isolation in Dubai did not help, but historically, I've moved on *fast*. Leaving non-committal options aside for a moment, I think growing older along with how messy the last relationship's end was has definitely made me more sceptical and analytical when it comes to considering someone as a potential.

There are a few people with whom I have fantastic times, but unfortunately, no one lingers on the mind. The dates I've been on have either been amusingly dead-end from the start, or, more frequently, broken the illusion I'd made of the girls in question and realised I wasn't thrilled. Like when I go shopping, I want to really want something before I invest into it.

To be fair, that's not always been the case, but with anyone there may have been (at least one-sided) potential with, either distance or something similar remained a barrier I didn't want to try and overcome. Whilst I am still a Bollywood romantic at heart and have faith, for now Kaun Hai Woh is Woh jo khwaabon mein aati hai, muskurati hai, magar subha tak kho jati hai.

### Career

First for some happier news. Time and again, I come across job postings that suddenly capture all of my attention, my pulse rises, and for all I know my pupils probably dilate. They're not always at entry level, but they nonetheless remind me there's stuff out there I'd actually like to do. Recently, Emirates Airlines put one out for an Environmental Affairs Manager - effectively leading impact assessments and leading low-carbon transformation. Total Energies had a lead for a PV research engineer in Paris that I've applied for, looking at the reliability of solar panels in various environmental settings through lab work, and finally

the National Physics Laboratory put out a PhD call for analysing satellite data on Antarctica to predict climate implications. It makes me want to tell every finance job listing to shove it.

On the flip side, reality hits. A priority for me is obtaining citizenship in a country I can carve a life out in. The UK is an obvious default. I've invested time and effort into building a network there and it seems counter-intuitive to let it go. However, paths to citizenship largely involve the tech/finance route which is, frankly, boring - a job for the sake of a job (not that I've managed to make those applications work for me quite yet). Salaries as well are quite abysmal compared to the US, Dubai, etc. It seems other international students in the UK wised up to this reality much before I did, as most have pursued a tech/finance role successfully.

Meanwhile, my friends in the US appear to have found success with roles more closely related to what they want to do, although not without significant determination. The visa process for internationals is quite opaque and is an ongoing concern for many of them. Whilst open to, even enamoured by, the prospect of working there, the practical constraints of work visas seem rather insurmountable at the moment. A wildcard is the Diversity Visa Lottery, which would give me a green card just like that, for which I apply every year.

I'm open to other countries as well i.e most of Western Europe, Canada, Aus/NZ, but there comes a point where you feel like a headless chicken. As many of you know, I am keen on the idea of a PhD. Admittedly, I've not taken concrete steps to making it a reality so far, largely because of the convenient excuse of a lack of time. Justifying it slightly, I know that getting funded in the UK is very unlikely, which leaves Europe as the only viable option. Really, it's the fact that I spent ages in October sorting out tech/finance applications for the reasons mentioned above that left me drained. Ultimately, I decided to leave the search till towards the end of the degree, and just focus on the task at hand.

## ECONOMIC OUTLOOK

There's quite a spread in the financial literacy and interest rates (pun intended) amongst my friends. I find it prudent to jot down my thoughts on paper in case any of you have suggestions, or better yet, find it informative.

## Equities

2021 is commonly seen as one of the best runs in recent history with the S&P (top 500 US listed companies) up about 30%. For many of us, this is the only reality we've seen and I'd like to stress how uncommon this is. Look at historical returns and you'll find 8-12% considered fantastic. Expect these sorts of numbers going forward. A big driver for the insane growth this year may be the reduced strength of the USD, detailed below.

I'm a big fan of Costco. They have customer loyalty, strong margins, multiple revenue streams, you get the picture. Their stock has also been my personal best investment ever, up almost 35% since I bought it at some point in 2021. I have often struggled to find non tech companies that had strong financials and growth prospects, but Costco has somehow won me over. I'd like to diversify going forward, so would love to hear your personal favourites.

From my analysis of emerging renewable energy systems, I strongly believe hydrogen will play a crucial role in the world. The tricky thing is saying when it'll have its moment. I'm keen on keeping some money in a related index, but historically, returns have been low compared to other options (because hydrogen hasn't had its moment yet). Similarly, baskets of stocks related to photovoltaics are likely stronger than wind, but the sector is heavily influenced by policy decisions that can make for sudden and large swings.

## USD Quantitative Easing (Printing Cash)

There's a fantastic video explaining this in detail

(<https://www.youtube.com/watch?v=1HmGLV46L60>). In essence, as history shows (think Weimar Republic, Zimbabwe, Venezuela), printing money after a sudden economic shock usually collapses currency systems. There's an argument that the USD is insulated because it acts as the world reserve currency, but data shows that foreign central banks have bought the least USD in 25 years[1]. Therefore, as we come out of isolation and people are able to spend more money, one would expect a similar devaluation. This helps explain the bull run this year. Companies may have had strong growth, but the dollar against which one would trade equities also weakened, thereby increasing the dollar valuation - similar to forex.

The question then stands, what do we think will happen going forward; will the dollar truly devalue? If so, will holding other currencies be a sufficient hedge? Is the increased interest in non-tangible and unbacked assets like BTC also fuelled by a desire to move away from the potential ongoing devaluation of USD?



## Climate Change and Societal Instabilities

There's a point I want to make clear. Climate Change mitigation *only* matters for the human way of life. If we don't succeed, is it likely a mass extinction will occur? It is. Will diversity likely return? It is. There have been mass extinctions before, and life always finds a way to re-emerge in stunning colours, so frankly, I'm not too worried about our planet and life on it, as a whole. Admittedly, this gets into the slightly philosophical debate of what's life without intelligent life forms to appreciate it.

In my books, climate change is purely our way of trying to ensure our current way of life can continue (roughly, Americans need to clean up their consumption). There's nothing wrong with that, and we may save significant current biodiversity in the process, but it's important to be aware of.

Do I think we can slow things down in time? We've not quite left ourselves enough time for the 2050 target. That said, we may blow past it, have sea levels rise to an extent, lose some low-lying cities and then be able to reverse things. Excess energy is the key.

## Energy & Decadence, Energy & Control

As our ability to harness the sun's energy improves, as we inch towards viable fusion power there will likely come a point where we have more energy available than we currently know how to use. Energy and wealth have strong correlations[2], so I think it is fair to say that initially, it may allow a significant reduction in poverty and increase in the carrying capacity of humans, as the energy to build and automate things like farming effectively becomes free.

What about after that? If energy is available in excess, suddenly terraforming a desert doesn't seem crazy. Leaving the lights on for the fun of it may cease to be an issue. With cheap energy will come the next revolution. Every single thing will now be worthwhile to recycle, including most plastics. But the level of control we will be afforded concerns me. We don't have a very good track record of thinking things through, and I will not be surprised if the decisions we make with every MJ in the next 50 years come back to bite us in the next 100.

But in the short term, I'd like you to consider this: economics traditionally says higher prices can be charged when value is added. A coconut is sold for more when it's with a straw, tiny umbrella, and seaside view. If I have a MJ of energy to spend then, what can I do to make the most profit? I could use it to grow and harvest wheat or saffron and the answer there is probably clear (although I've not done the maths). The options are vast and therefore

confusing. The real question perhaps tests another market theory; would the most profitable way to use the MJ simply be to sell it on the free market[3]?

## CLOSING

I know different sections will have appealed to each of you to different amounts, but if you've made it this far, there was something that you resonated with somewhere in there - in which case I'd love to hear your take as usual.

At the end of the day, the world is a simple place: prosperity still arises from the trade of natural resources in some form. Our talent is a natural resource. Let's find our way to prosper.

### References

[1] Anonymous "US Dollar Share of Global Foreign Exchange Reserves Drops to 25-Year Low," Available: <https://blogs.imf.org/2021/05/05/us-dollar-share-of-global-foreign-exchange-reserves-drops-to-25-year-low/>.

[2] C. A. S. Hall and K. A. Klitgaard, *Energy and the Wealth of Nations : Understanding the Biophysical Economy*. (1st ed.) 2011 Available: <https://library.biblioboard.com/viewer/dd1a895f-73bb-4e7e-b39e-8d1b219a888d>. DOI: 10.1007/978-1-4419-9398-4.

[3] Arman Gharleghi, "How to use 1 TJ for profit," 22 December, 2021.