

Public Newsletter for the period ended
30 June 2022

Welcome to the Lighthouse Advisors newsletter for June 2022.

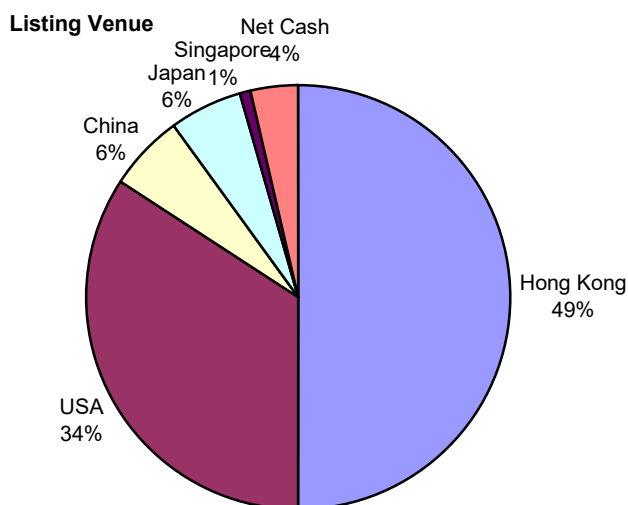
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1. Summary

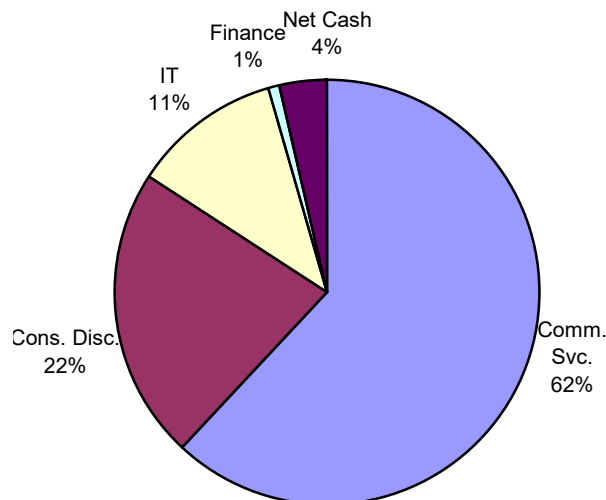
The NAV for June 2022 was USD 64.03 (SGD: 88.99). Year-to-date return was -22.7% (SGD: -20.3%).

Market Index	1Q22	2Q22	YTD
Hang Seng Tech	-19.6%	+6.8%	-14.1%
NASDAQ	-9.1%	-22.4%	-29.5%
Fund	-14.8%	-9.3%	-22.7%

19 securities made up 96% of the Fund's holdings, with the balance in cash and cash equivalents. The following charts show the approximate exposure by place of listing and GICS sector (percentages may not add up or match exactly due to rounding).



Sector Exposure



NAV values (USD and SGD) are tabled in Annex II.

2. Market Commentary

China's economic slowdown continues to bite. Citywide Covid-19 lockdowns in Shanghai and now Beijing are hurting the local economy, while nationally the real estate sector remains paralyzed, with nearly all developers reporting large declines in sales.

The Fund has no exposure to Chinese real estate, but its holdings in Chinese e-commerce and videogame companies have been affected by poor consumer sentiment. Tightening regulations are also forcing many investors, your manager included, to reassess the companies' future prospects in China.

In Europe, Russia's decision to halt gas flows through the Nord Stream pipeline has caused gas prices to spike. A recession in Europe seems inevitable.

In the US, rising inflation is hurting consumer sentiment, but leading technology companies remain entrenched. They offer incredible value for money to customers – and their stocks represent compelling value to investors.

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The next newsletter will cover the period ending 30 September 2022.

Benjamin Koh
Chief Investment Officer
Lighthouse Advisors
6 September 2022

3. Portfolio Review

To protect the interest of clients, detailed discussion is confined to the client-only version of this newsletter. Client newsletters are embargoed for one year, after which they are made available online.

4. DeFi-ying Logic

Decentralized Finance (DeFi) is one feature of blockchain-based finance. Beyond the simple HODL (Hold On for Dear Life) strategy which relies only on price rises, many cryptocurrency owners participate in DeFi in order to earn interest.

The basic DeFi idea is that those with spare cryptocurrency tokens lend them out, at varying rates of interest. Those who need the tokens the most will pay the highest interest.

DeFi, at a basic level, is similar to traditional chit funds, where the person who needs the money the most offers the highest interest to the lending pool. In theory, this is an efficient clearing system – borrowers obtain needed funds, while lenders are paid for taking credit risk. In practice, someone who needs money or tokens very badly might not be a good credit risk, and people with assets to lend out do not necessarily have the expertise to evaluate a borrower's ability to repay.

One type of cryptocurrency lending goes through centralized lenders, who consolidate deposits from token owners and lend them out to large borrowers. This is centralized cryptocurrency lending. With good risk controls, a lender can mitigate the risk of bad loans, for example by requiring collateral and aggressively implementing margin calls, just like traditional lenders. Unfortunately, lending defaults have led to the shutdown of prominent cryptocurrency lenders like **Voyager Digital**, **Celsius Network**, **Babel Finance** and **Vault**, which suggests that in

cryptofinance, poor risk controls are the rule, rather than the exception. As with “Buy Now Pay Later”, the importance of risk controls only becomes clear when things go badly.

DeFi removes the centralized lender. It then falls to the lending protocol (software code) to implement risk controls, firstly in the type of collateral accepted, then in the margin requirement, and finally the implementation of the margin call. With appropriate risk controls, DeFi can theoretically operate successfully without the large fixed overheads typically associated with centralized lending. The reduced costs can reduce costs to borrowers, increase returns to lenders, or both. The **Maker** protocol is one example of a conservatively collateralized DeFi protocol: borrowers can only borrow **DAI** stablecoins against Ethereum-based cryptocurrency they have pledged. If the collateral declines in value, it is sold to cover the outstanding DAI loan. If this is insufficient, **MKR** tokens are created and sold to raise funds. This dilutes the value of the MKR token, so holders of MKR tokens (who have governance/voting rights) function like corporate shareholders absorbing a bad debt.

Unfortunately, many DeFi projects are fraudulent. Such projects are often structured as a fundraising: instead of an Initial Public Offering (IPO), it is an Initial Coin Offering (ICO). ICO scams commonly involve the launch of a new token (“NewCoin”), where the creators retain a large block of NewCoin. Once enough money has been put into NewCoin, the creators sell all their holdings and cash out, causing the price of NewCoin to crash. A recent study found that 50% of all token listings on Uniswap (a cryptocurrency exchange) were scams¹. It estimated that over USD\$16m had been stolen from nearly 40,000 victims. Today's tally for losses (and losers) is undoubtedly far higher.

What about the DeFi project involving **Terra**?

Terra was composed of 2 parts: a “stablecoin” pegged to fiat currencies e.g. **TerraUSD (UST)**, which was pegged to the US dollar, and **Luna**, a “governance” token that was exchangeable with the stablecoin, but whose value was allowed to fluctuate. “Traditional” stablecoins are

¹ *Trade or Trick? Detecting and Characterizing Scam Tokens on Uniswap Decentralized Exchange*, Association for Computing Machinery Vol. 5 No. 3 Article 39, December 2021

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collateralized by a pool of assets in order to maintain their value, similar to how governments maintain foreign reserves and gold in order to support their own currency. **Tether** is supposed to be backed by US dollars, **DAI** is supposed to be backed by other cryptocurrencies, and **Paxos Gold** is supposed to be backed by gold.

However, UST had **no collateral**. Instead, it was an *algorithmic* stablecoin maintained by a software link to Luna. UST and Luna were interconvertible. If UST rose above US\$1, traders could buy US\$1 of Luna, convert it to UST and sell it for a profit. If UST fell below US\$1, traders could buy UST at a discount, swap it to Luna, and sell it for US\$1.

In theory, the value of UST would be maintained, but the value of Luna would fluctuate. This was risky because UST depended on Luna always having *some* value. Back in 2018, Cyrus Younessi, an analyst at MakerDAO, had already identified the risk of a “death spiral” where both tokens might be sold down in tandem because of the lack of true collateral.

In the long term, if enough real-world economic activity used Luna in some way, its value could be maintained, like how fiat currencies possess value because of the underlying economic activity using them.

But in the meantime, any such projects were at best still works in progress. Therefore there was no basis for Luna to be currently worth anything *but* zero. In the short term, Luna’s price could only be maintained (or increased) by continually attracting new money i.e. it had to operate like a Ponzi scheme. How was this done? *DeFi*.

UST’s **Anchor** protocol promised as much as 19.46% interest annually for simply depositing UST. But UST could only be created using Luna. This helped create demand for Luna.

Anyone with a shred of common sense should know that a story that starts with a 19.46% interest rate does not have a happy ending.

Long story short, on 7 May 2022, a large amount of UST was removed from Anchor and sold, depressing the price of UST. Traders tried to arbitrage the price difference by buying UST to swap for Luna, but ran into the US\$100m daily conversion limit for UST.

Once the peg to the US dollar failed, Anchor suffered a bank run as UST holders rushed to swap their holdings to Luna and cash out. With only sellers and no buyers, the price of Luna went from US\$82.55 to US\$0.01 within a week. In fact, on many exchanges the price of Luna was *zero*. And once Luna hit *zero*, it didn’t matter how many Luna tokens were backing UST, a trillion Luna tokens priced at zero were still worth zero. Game over.

Of course, not *everyone* was impoverished. As with pyramid schemes, those who got in early and left early did very well. **Pantera Capital**, a hedge fund that invested early into the Terra project, made 100 times its money, turning US\$1.7m into US\$170m. Other funds were not so fortunate. **Three Arrows Capital** lost all their money: lenders have so far reported over US\$3bn in outstanding loans, of which only about US\$40m has been recovered².

“Sustainability” has become a popular word in investing circles today. If cryptocurrency holders had thought about whether Anchor’s 19.46% interest rate was *sustainable*, it would have been a trivial decision to stay away.

∞ End ∞

² *The Crypto Geniuses Who Vaporized A Trillion Dollars*, **New York Magazine**, 15 Aug 2022.

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Annex I

NAV in USD (Official)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
2008										34.16	33.49	35.62	4.3%
2009	34.57	33.52	33.37	36.69	46.20	46.00	50.06	49.68	52.66	54.17	56.68	59.94	68.3%
2010	59.05	61.09	65.17	68.27	64.14	65.69	70.65	72.24	81.06	83.56	85.10	90.30	50.6%
2011	87.21	86.29	88.13	92.81	90.85	91.35	91.17	83.69	69.04	78.23	73.00	72.88	-19.3%
2012	77.40	82.90	82.52	83.32	76.36	77.25	77.27	77.91	80.57	79.44	82.70	84.92	16.5%
2013	91.43	97.36	99.96	100.24	99.14	95.09	98.50	100.00	100.86	102.24	102.63	102.93	21.2%
2014	99.15	101.78	99.80	101.84	105.45	106.57	109.05	108.58	103.60	103.91	101.87	99.94	-2.9%
2015	97.97	98.16	97.74	103.80	103.69	100.99	96.17	85.91	84.17	88.91	86.20	86.35	-13.6%
2016	81.56	83.81	88.82	92.18	91.50	91.52	94.48	94.86	94.87	93.34	91.92	90.20	4.5%
2017	93.18	97.08	101.10	101.39	105.74	107.11	109.67	108.57	109.35	112.57	108.28	109.41	21.3%
2018	113.04	109.56	109.03	105.39	109.62	104.37	101.26	93.71	94.25	85.19	86.83	86.66	-20.8%
2019	91.98	92.36	90.04	90.21	82.80	84.21	82.57	78.45	76.52	77.82	78.75	82.80	-4.5%
2020	78.58	75.37	67.15	71.23	70.50	77.22	82.23	88.36	84.97	86.77	90.34	93.20	12.6%
2021	99.54	99.36	94.98	99.37	96.76	96.86	86.54	87.88	85.09	90.51	85.32	82.81	-11.1%
2022	78.21	74.05	70.58	65.87	65.29	64.03							-22.7%

Note: The Net Asset Value of the Fund has been linked to the rebased NAV of the Reference Account, which had the same investment style. Until the launch of the Fund, the Reference Account served as the model portfolio for all the separately-managed client accounts. Its trading records were distributed to clients as proof that the Manager's interests were fully aligned with those of the clients. The Reference Account was started at the end of 2008 and became inactive following the launch of the fund on 1 September 2013.

The following data is for the convenience of SGD-based investors and is for reference only.

NAV in SGD (for reference only)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
2008										50.68	50.69	51.20	2.4%
2009	52.22	51.91	50.74	54.21	66.70	66.59	72.06	71.60	74.19	75.67	78.50	84.15	64.4%
2010	83.11	85.83	91.17	93.55	89.79	91.72	96.10	97.84	106.70	108.12	112.34	115.86	37.7%
2011	111.57	109.76	111.06	113.64	112.11	112.14	109.75	100.70	89.85	97.91	93.64	94.48	-18.5%
2012	97.39	103.46	103.79	103.05	98.44	97.76	96.12	97.20	98.89	96.95	100.95	103.74	9.8%
2013	113.19	120.44	124.03	123.50	125.34	120.54	125.55	127.49	126.57	126.83	128.86	127.81	23.2%
2014	124.51	128.55	125.58	127.84	132.26	132.85	135.95	135.58	132.14	133.61	132.91	132.34	3.5%
2015	132.68	133.74	134.11	137.66	139.74	136.08	131.71	121.30	119.78	124.68	121.53	122.26	-7.6%
2016	116.13	117.82	119.59	123.86	126.08	123.36	126.71	129.30	129.32	129.95	131.79	130.54	6.8%
2017	131.35	135.81	141.22	141.04	146.29	147.44	148.75	147.28	149.30	153.38	146.00	146.32	12.1%
2018	148.13	145.04	142.95	139.64	146.74	142.24	137.76	128.59	128.83	117.98	119.13	118.06	-19.3%
2019	123.77	124.86	123.01	122.81	113.88	113.93	113.02	108.85	105.83	105.92	107.71	111.33	-5.7%
2020	107.23	105.02	95.47	100.41	99.64	107.68	112.93	120.15	116.02	118.55	121.20	123.14	10.5%
2021	132.30	132.32	127.74	132.16	127.85	130.26	117.21	118.19	115.50	122.11	116.41	111.73	-9.3%
2022	105.70	100.32	95.63	91.14	89.43	88.99							-20.4%