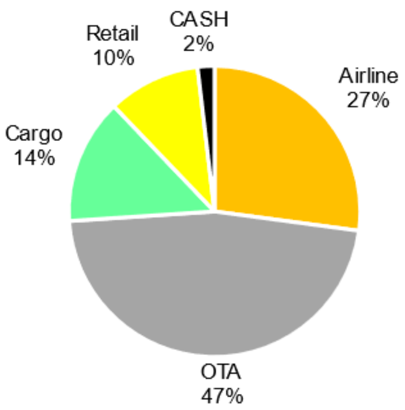
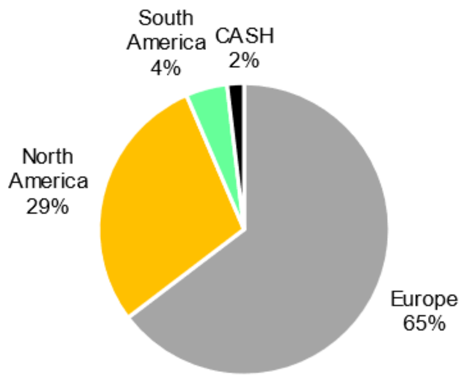
Pangolin Aviation Recovery Fund December 2022 NAV

As at 31st December 2022, the NAV of Class A shares of the Pangolin Aviation Recovery Fund was US$82.15 net of all fees and expenses, virtually unchanged compared to US$82.18 in November 2022. For the full year 2022, we were down by 22.54%.

The fund is 98% invested, with the split being approximately as follows:

Figure 1: Portfolio by sector exposure	Figure 2: Portfolio by geographical exposure
	

Overview

December was a stable month for the fund. There was one activity in December; we utilised fund inflows to increase our stake in Deutsche Post. The significant winners were On-the-Beach and Sabre, while the significant underperformers were Norwegian Air Shuttle and GOL Aereas Linhas.

2022 in review

It has been quite a year. That is saying something given that 2020 and 2021 were dominated by the global pandemic. Despite the rapid reopening of the global economy and the strongest demand for air travel seen in a long time, the fund's performance was akin to a bear market. All our global benchmarks were down as well, but we underperformed relative to them.

We suffered because I underestimated the longevity of the Russia-Ukrainian war. The portfolio is overweight Europe and investors' sentiment deteriorated and equity values derated immensely. I take a lesson from this and not take a view on geopolitics in the future. I'd rather be indifferent and act accordingly.

What we think 2023 will bring

I mentioned in my 2022 outlook statement last year that there are three prerequisites for global recovery to happen: (1) progressive regulations; (2) ease of trade; and (3) mobility of manpower. Unfortunately, all three factors were elusive for the early parts of 2022.

Thankfully, things have stepped up a few gears recently. China and the rest of the overcautious Asia Pacific countries have removed their travel restrictions. The operating landscape has improved and here are our thoughts on what will transpire in 2023.

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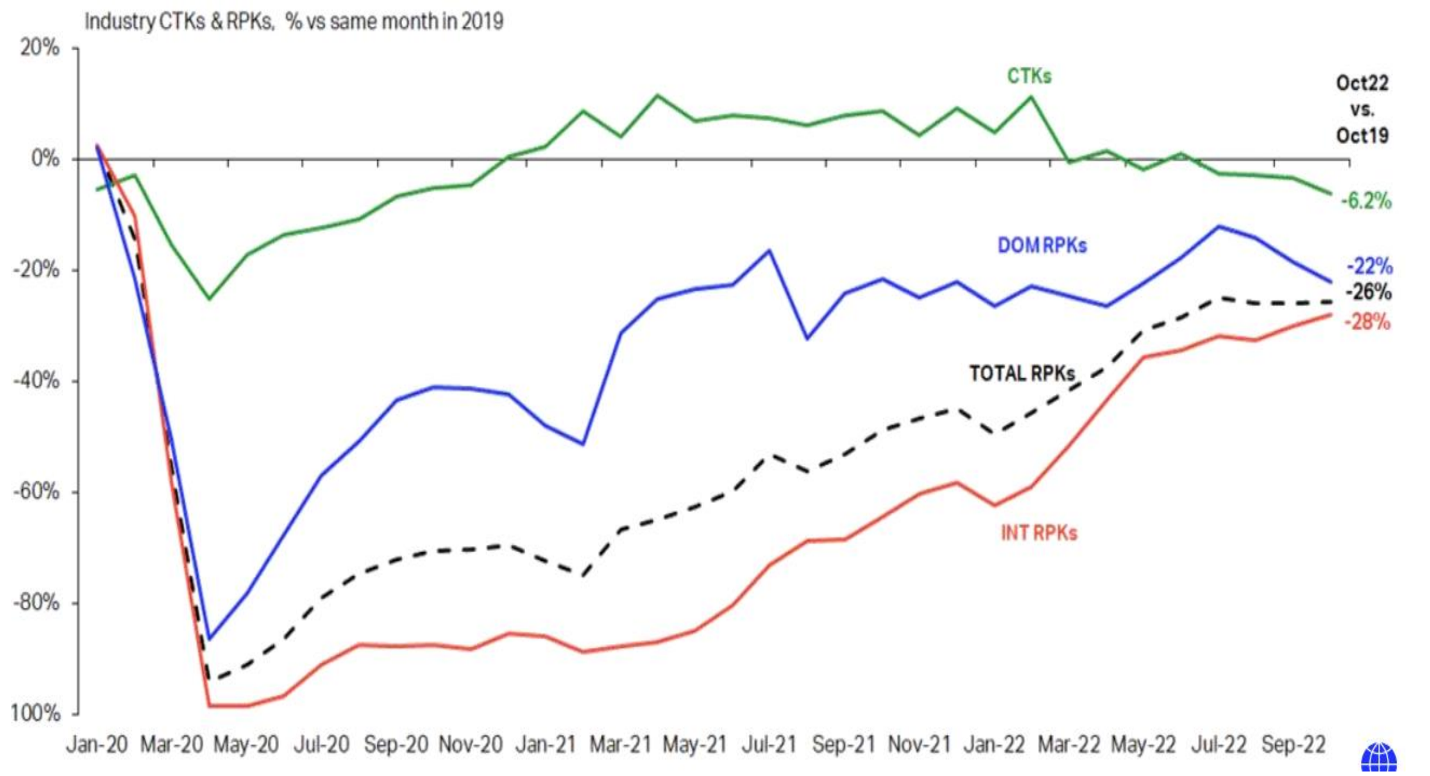
1. Air traffic will accelerate, but supply will remain in deficit.

According to IATA, passenger traffic is about a quarter below and air freight is 6% below pre-pandemic levels. Globally, some 100,000 weekly flights have been scrubbed from pre-Covid schedules (based on air scheduling data from OAG).

Figure 3: Air travel versus 2019



Source: IATA

It will take some 4,000 aircraft to fly those missing 100,000 weekly flights. There are plenty of able aircraft parked in deserts and storage facilities around the world. The latest estimate is 18% of the total global commercial fleet or roughly 3,660 aircraft are in storage. In normal times, this number should only be 3-5%. Reactivating these stored aircraft requires extensive safety inspections and certifications. A small regional jet can consume 1,000 manhours whilst the Airbus A380 behemoth will consume 4,500 manhours.

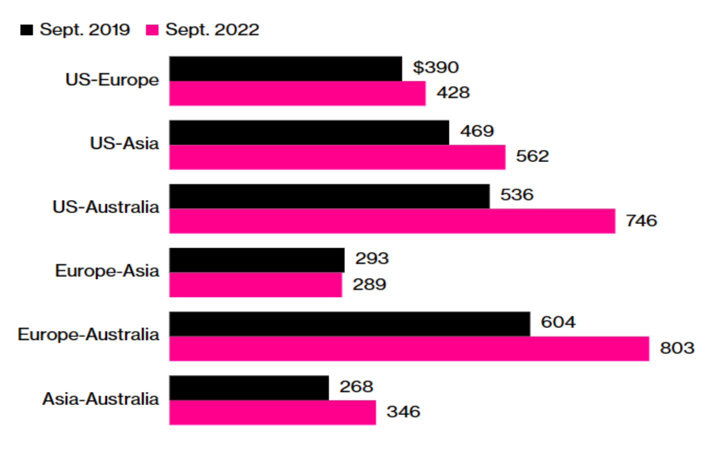
We should see ±1,200 new aircraft to be delivered in 2023, based on the latest guidance by aircraft manufacturers. Therefore, with the aggregate number of stored aircraft to be recommissioned and encouraging new aircraft deliveries, the world should have a full flight schedule – akin to the one in 2019, by end of the third quarter.

2. Ticket prices will come down

I don't need to tell you that current ticket prices are astronomically high. This is due to the stark imbalance of supply and demand. The fewer the capacity, the higher the ticket prices will be.

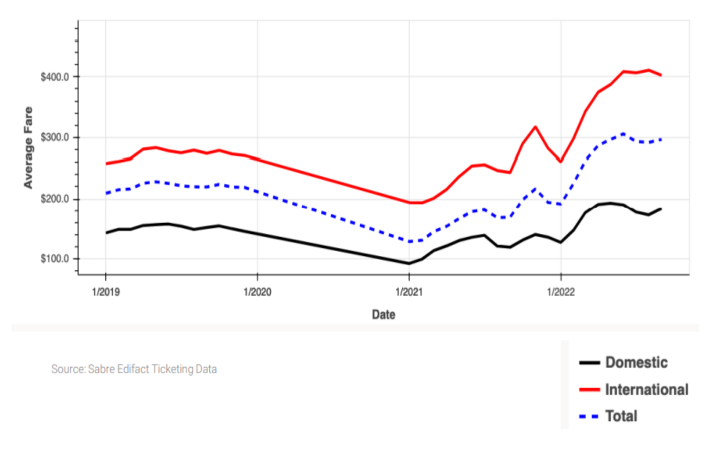
As new supply gets deployed, the average airfare will come down. We noticed forward airfares from Emirates, Turkish Airlines, and British Airways are becoming competitive. All these airlines have their own engineering shops and can deploy their fleet faster than other carriers that are dependent on third-party MRO providers.

Figure 4: Average one-way economy prices, excluding taxes and fees



Source: Cirium

Figure 5: Global average fare per ticket booked through Sabre



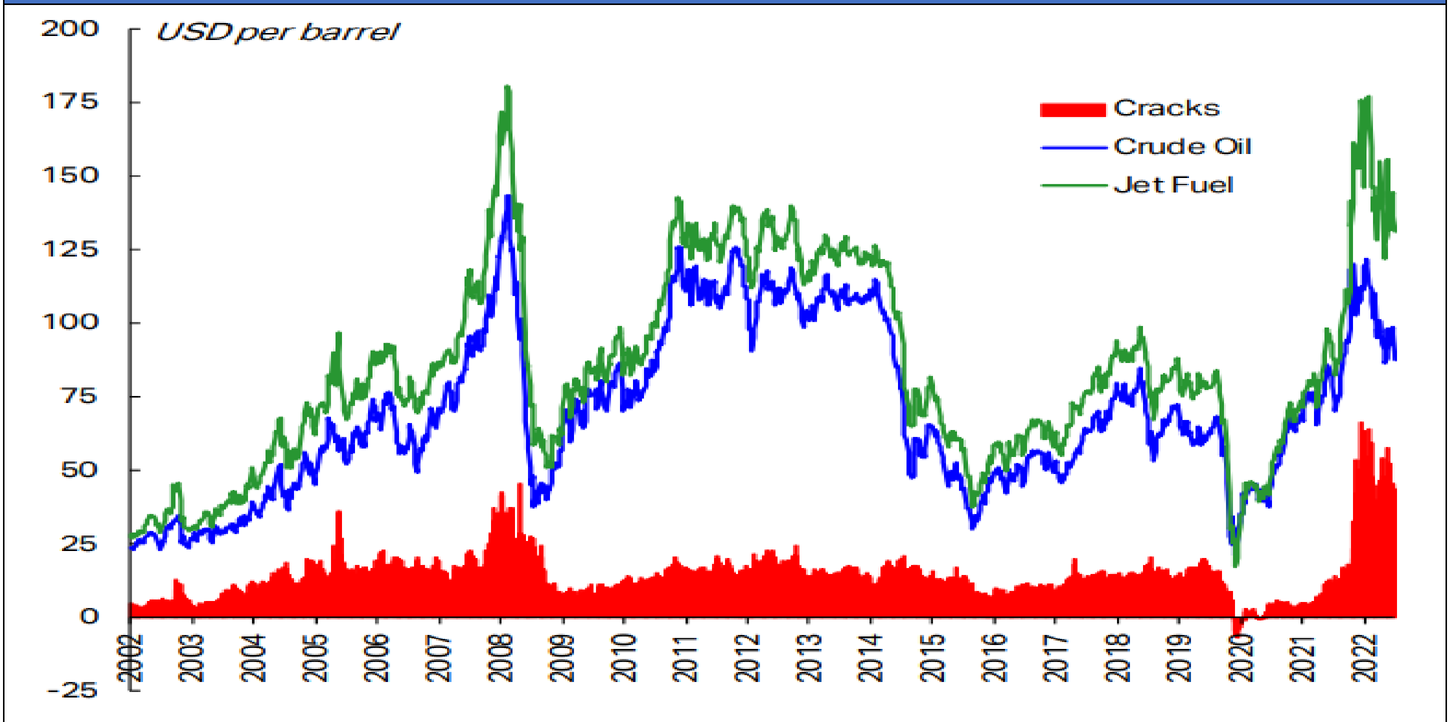
Source: Sabre Edifact ticketing data

3. Costs items are mixed, but generally coming down

Manpower shortages are driving higher wages. We think this is a problem that will take 2-3 years to stabilise. The good news is many companies have increased investments to automate and digitise their operations. This will alleviate the said problem and eventually boost employee productivity.

Other cost items are receding. Jet fuel has trended lower from its record surge when the war broke out. Aircraft values are at a bargain and trading at 20-33% lower than pre-pandemic’s levels depending on aircraft type. The market values of older aircraft model have plunged by more than half as airlines prefer modern fuel-efficient aircraft models. Cost of computing and technology costs have declined significantly too.

Figure 6: Jet fuel price and crude oil price

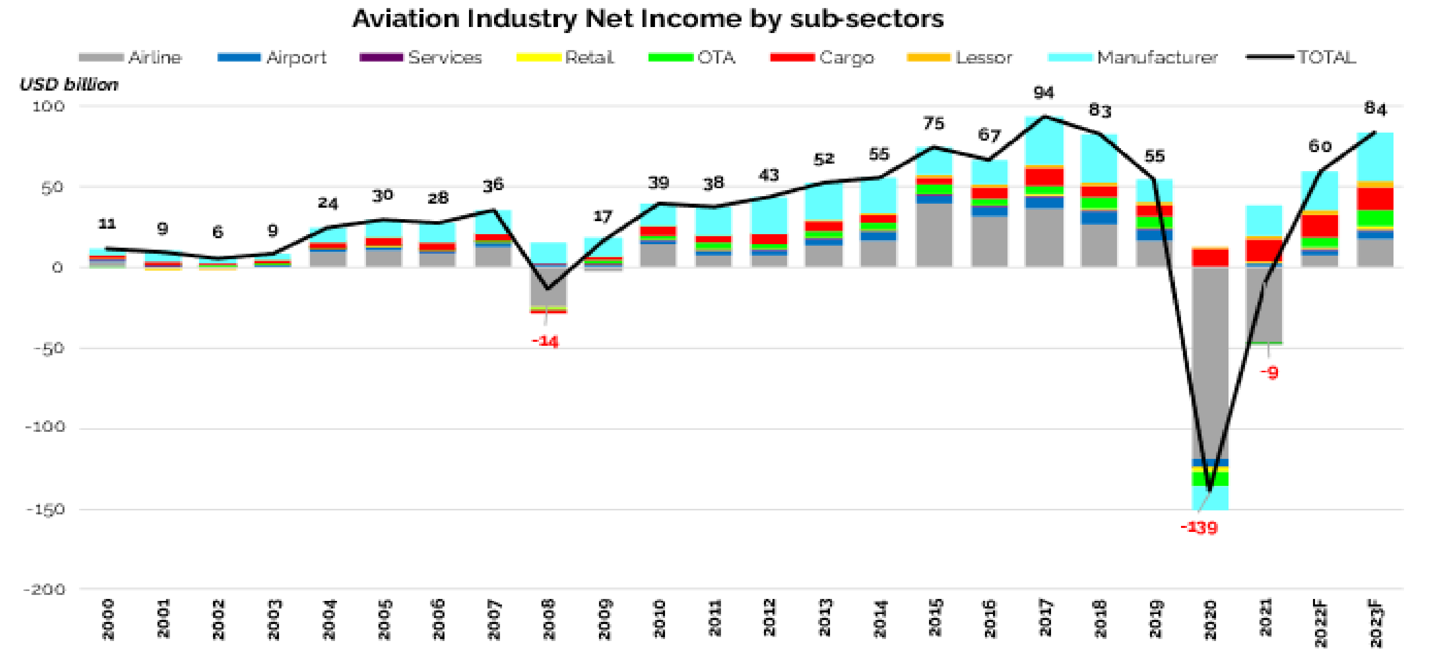


Source: Platts

4. Aviation industry will be profitable again

The combination of higher capacity deployment, higher asset utilisation, and cost stability will result in a return to profitability for the entire aviation industry in 2023. Figure 7 below shows the consensus net profit for all 182 aviation companies on our watchlist.

Figure 7: Aviation industry net income by sub-sectors



Sources: Respective companies, Bloomberg

Outlook

This is the third year for the fund and the investment thesis is coming to its elements. Great companies are extending their business leadership, gaining market share, and churning free cash flow. They are coming out of the crisis stronger than ever. Best of all, they reward shareholders with dividends and share buybacks.

The statements coming out of these crises hardened managers are positive. In fact, many have recently raised their profit guidance on better-than-expected 4Q-2022 performances. They are far more knowledgeable on the true challenges faced by consumers than any economists or central bank representatives, who only talk about the past. Hearing these company managers talk, you can't help but get a warm feeling in your heart and whisper to yourself, "It Is not so bad at all, I knew it".

Our portfolio trades at 11x forward earnings in 2023 and will likely reduce to single digit in 2024. Value is being exhibited but not rewarded. If this persists, it is only natural for company managers and the boards to think of privatisation. In 2022, there were a total of eight mergers and privatisation of aviation companies. I won't be surprised if this number is much higher in 2023.

The point is fear and sentiment does not necessarily reflect reality. But when reality prevails, denialists will naturally go the way of the Dodo.

Let's keep it real.

Mohshin Aziz
9 January 2023

Year	Details	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
2022	***NAV***	110.60	108.72	106.42	103.80	97.14	76.62	79.66	79.91	65.91	75.13	82.18	82.15	**-22.54%**
	MoM %Δ	*4.28%*	*-1.70%*	*-2.11%*	*-2.46%*	*-6.42%*	*-21.12%*	*3.97%*	*0.31%*	*-17.51%*	*13.99%*	*9.38%*	*-0.04%*	
2021	***NAV***	93.38	112.20	116.33	116.30	119.97	113.86	109.74	108.43	115.97	109.28	93.87	106.06	**6.06%**
	MoM %Δ	-6.62%	20.15%	3.68%	-0.49%	3.16%	-5.09%	-3.62%	-1.19%	6.95%	-5.77%	-14.1%	12.98%	

Figure 8: Pangolin Aviation Recovery Fund NAV (USD/share)