



Reinventing Risk Management for Air Travel

Skytra data analysis: COVID-19 IMPACT

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Skytra ticketing database

A unique resource

Other data providers

Monitor flights, volumes of tickets booked OR scraped prices.

Skytra

Combine the most complete issued ticketing database, from the Airline industry trade body IATA with a source of pricing information that generates BILLIONS of price checks daily.

Skytra proprietary models

Match prices to issued tickets enabling measurement of full economic performance on a daily basis, aggregating from individual ticket level up.

North America	05/2019	201905291622	LAX-MIA(N),201905300055_MIA-GC
South America	02/06/2019	201906021320	TAO-DLC(W)
Europe	19/04/2019	201904192250	ORD-IAH(N),201904221035_IAH-O
Asia	06/04/2019	201904060430	LAX-MIA(B)
North America	14/04/2019	201904141450	GRU-BSB(N),201904141905_BSB-
South America	26/04/2019	201904260450	AHO-FCO(X),201904281505_FCO-
Europe	28/06/2019	201906281420	JED-IST(V),201907181935_IST-JE
Asia	22/05/2019	201905221215	IAD-FLL(L)
North America	07/06/2019	201906071515	RUH-DXB(L),201906072240_DXB-I
South America	02/06/2019	201906021045	CVG-IAH(N),201906021435_IAH-M
Europe	24/05/2019	201905241220	RUH-MCT(Q),201905242130_MCT
Asia	24/05/2019	201905240020	TAO-CAN(U)
North America	28/05/2019	201905281010	DAY-DFW(Y),201905281344_DFW
South America	27/05/2019	201905271130	PEK-NNG(M)
Europe	03/08/2019	201908030505	HAN-TPE(M),201908031140_TPE-
Asia	02/04/2019	201904021110	DLC-PEK(Y)
North America	14/04/2019	201904141715	UFA-LED(Q),201904150045_LED-S
South America	31/05/2019	201905310250	LAS-PHX(Q)
Europe	04/05/2019	201905041900	SFO-LAX(Q),201905051330_LAX-S
Asia	24/05/2019	201905242317	IAH-LIR(S),201905281250_LIR-IAH
North America	21/05/2019	201905211835	CDG-NAP(T),201905251025_NAP-
South America	24/05/2019	201905241937	FAT-SLC(T),201905242315_SLC-F
Europe	05/09/2019	201909051043	MVD-LIM(Q),201909051730_LIM-P
Asia	29/05/2019	201905290300	SGN-DAD(Q),201906010900_DAD-
North America	11/04/2019	201904110420	PRG-AMS(M)
South America	11/04/2019	201904112323	DEN-IAH(K),201904120310_IAH-SC
Europe	22/05/2019	201905221825	SFO-JFK(K),201905241505_JFK-S
Asia	08/05/2019	201905080830	CJB-DEL(L)
North America	14/05/2019	201905141515	TPE-FRA(H),201905190920_FRA-T
South America	14/05/2019	201905140113	MIA-SJU(S),201905152154_SJU-M
Europe	26/05/2019	201905261350	YVR-LAX(S),201905261915_LAX-M
Asia	26/06/2019	201906260155	GRU-MAD(S),201906261340_MAD-
North America	18/06/2019	201906180745	SVQ-SIR(Q),201907101525_SIR-S

Skytra methodology

Technical Disclaimer

- We have cross-referenced data in line with our proprietary methodology (available to data licensees in draft) however aggregation is different.
- This means that we are using our **Skytra method to ESTIMATE** ticket pricing **NOT** full ticket sales information from a listed public company or other body.
- The data and analyses presented are Skytra’s and based on our own database and do not constitute advice or recommendations.
- Interpretation has been suggested using publicly available information.
- Due to the uniqueness of the situation it has not been possible to back test these new measurements against other methodologies or data.



1407.19
369.48
136.78
248.23
258.42
762.4
176.98
617.4
124.77
1990.21
1229.27
795.31
189.54
2394.98
314.49
1566.13
154.735

COVID-19 how bad has 2020 been?

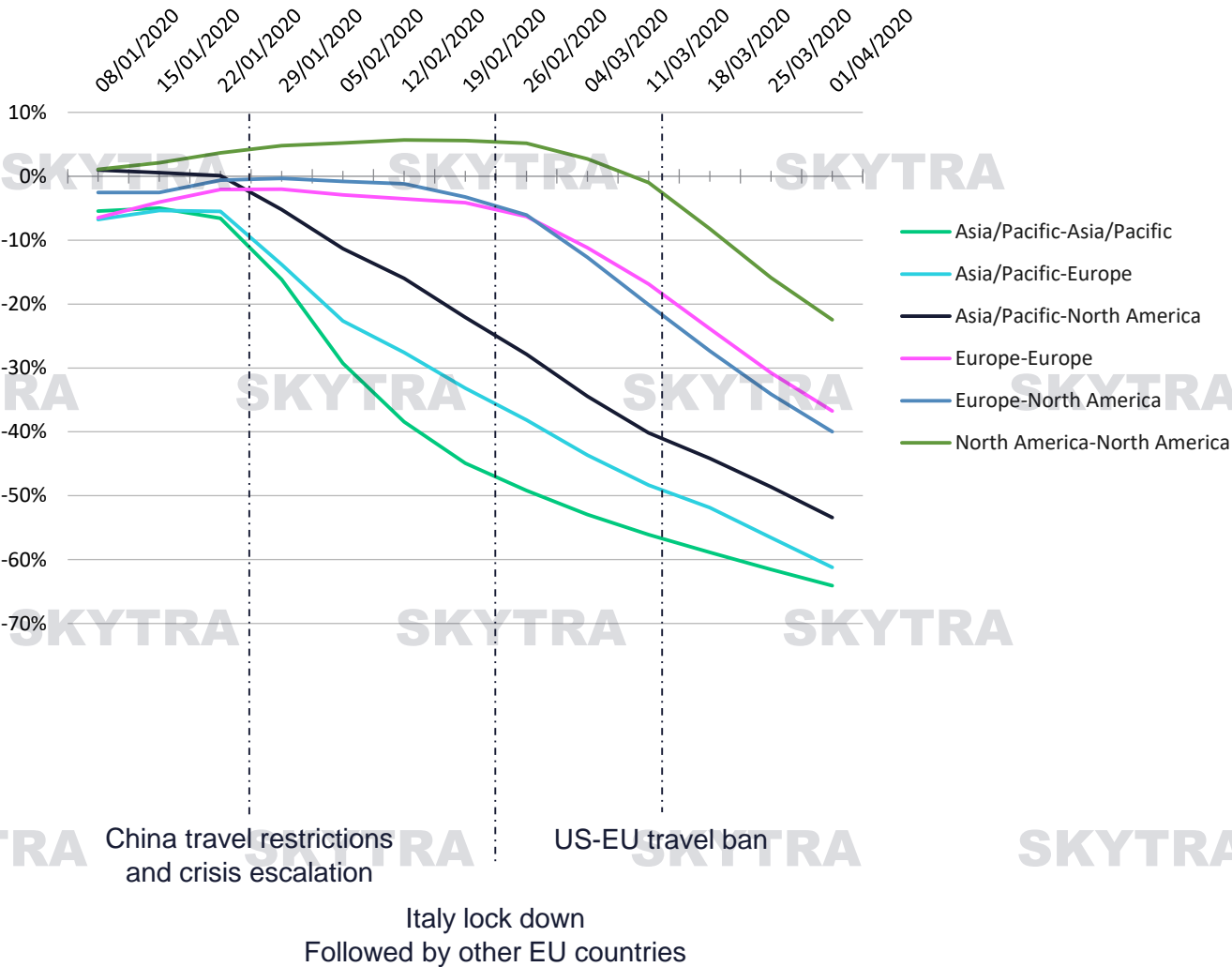
Cumulative lost revenue 2019/2020

The cumulative value of tickets issued in 2020 compared to 2019 updated weekly.

Unprecedented but there are differences

This is clearly an enormous challenge for the industry, everywhere in the world.

However we estimate that the crisis has, for the moment, caused much more damage in the Asia centric markets. Due to the earlier start of the crisis.



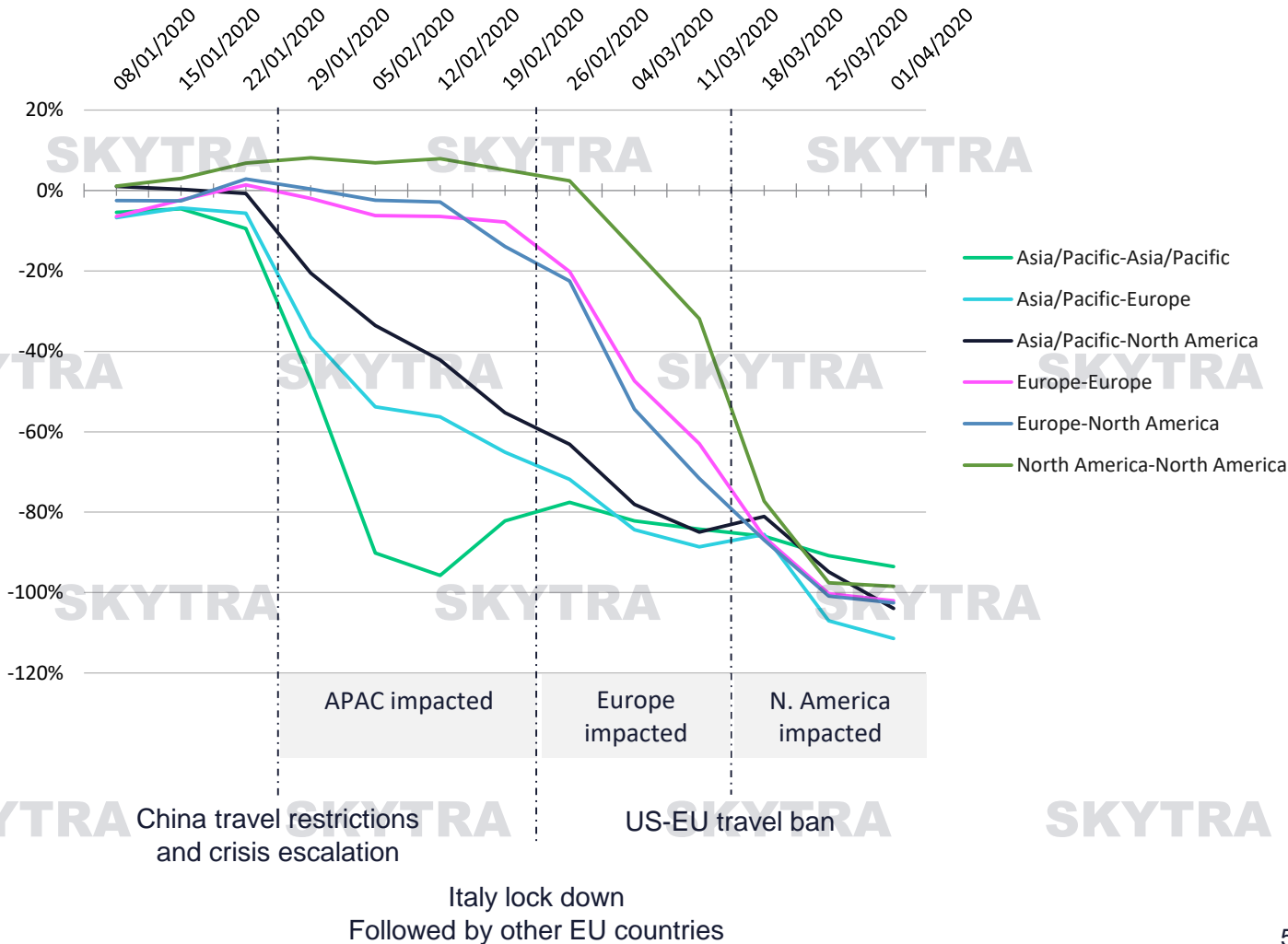
COVID-19 how was the last week?

Weekly ticket sales 2019/2020

Each week we calculate the value of tickets sold, subtract the value of refunds and compare to the same week in 2019.

The picture in the 1st week of April

While weekly sales in Europe & North America held up through February, refunds are now keeping pace with issues in every region. Leading to net ticket sales of -100% when compared to 2019



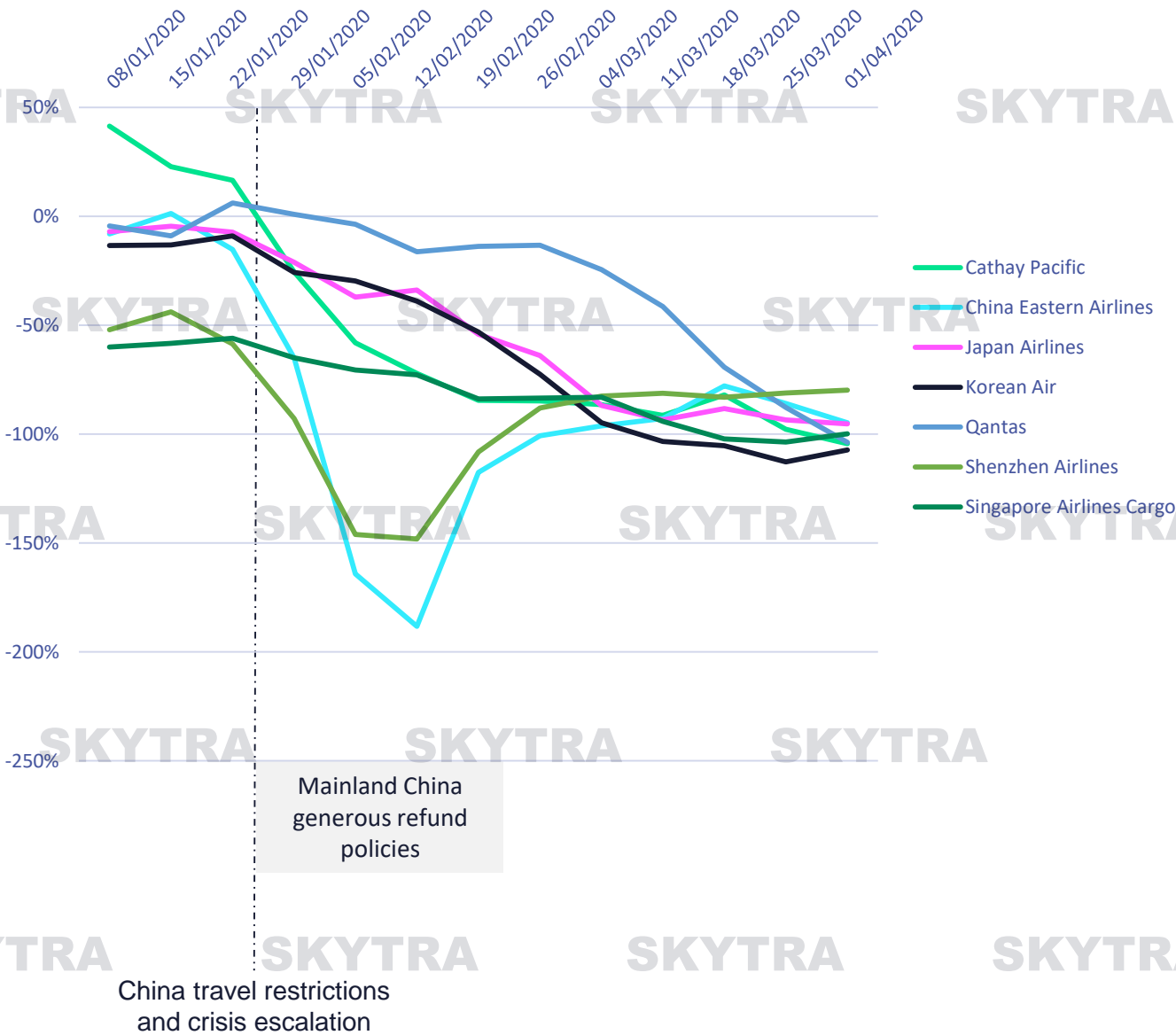
Asia-Pacific carriers: Weekly ticket sales

Asia Pacific market net weekly sales

While the Asia-Pacific market has been hit longest by the COVID-19 outbreak there are significant differences in the impact between the different airlines

China & the rest

In February we can see the result of the Chinese government in taking radical steps in late January and early February, alongside the generous refund policies for mainland Chinese carriers. The performance of other carriers is closer to that of the wider international market so as a function of their exposure to the Chinese market.



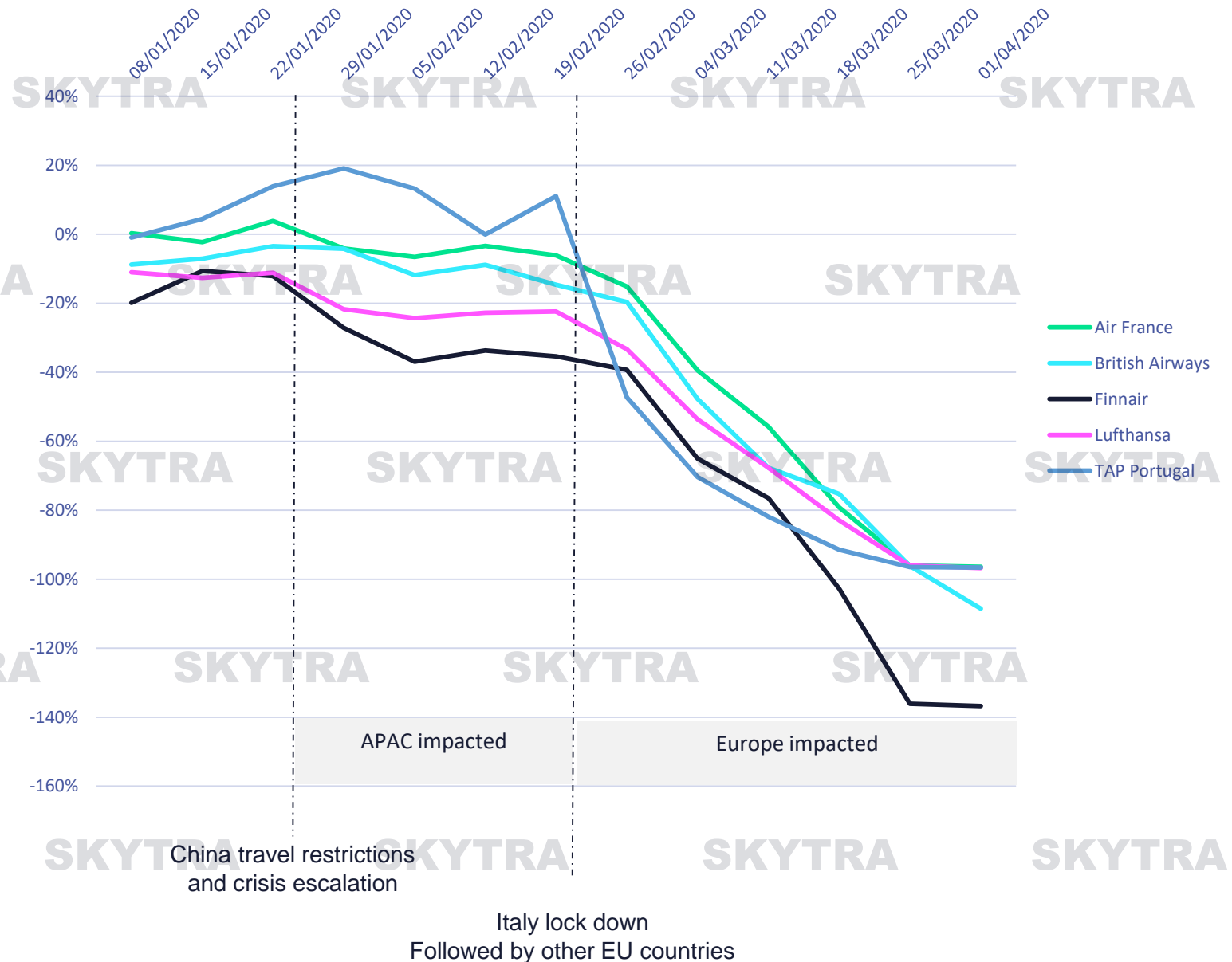
European carriers: Weekly ticket sales

Airlines with diversified routes

Air France, British Airways & Lufthansa are very much global carriers so it is likely that their Chinese and Asian route closures weighed on February before the crisis progressively took hold of their other markets.

Airlines with a focus on certain markets

TAP were initially less exposed as they operate routes focused on Europe, Africa and the Americas before these markets too were affected. Finnair on the other hand with their competitive position on the Europe to Asia market face a challenge.



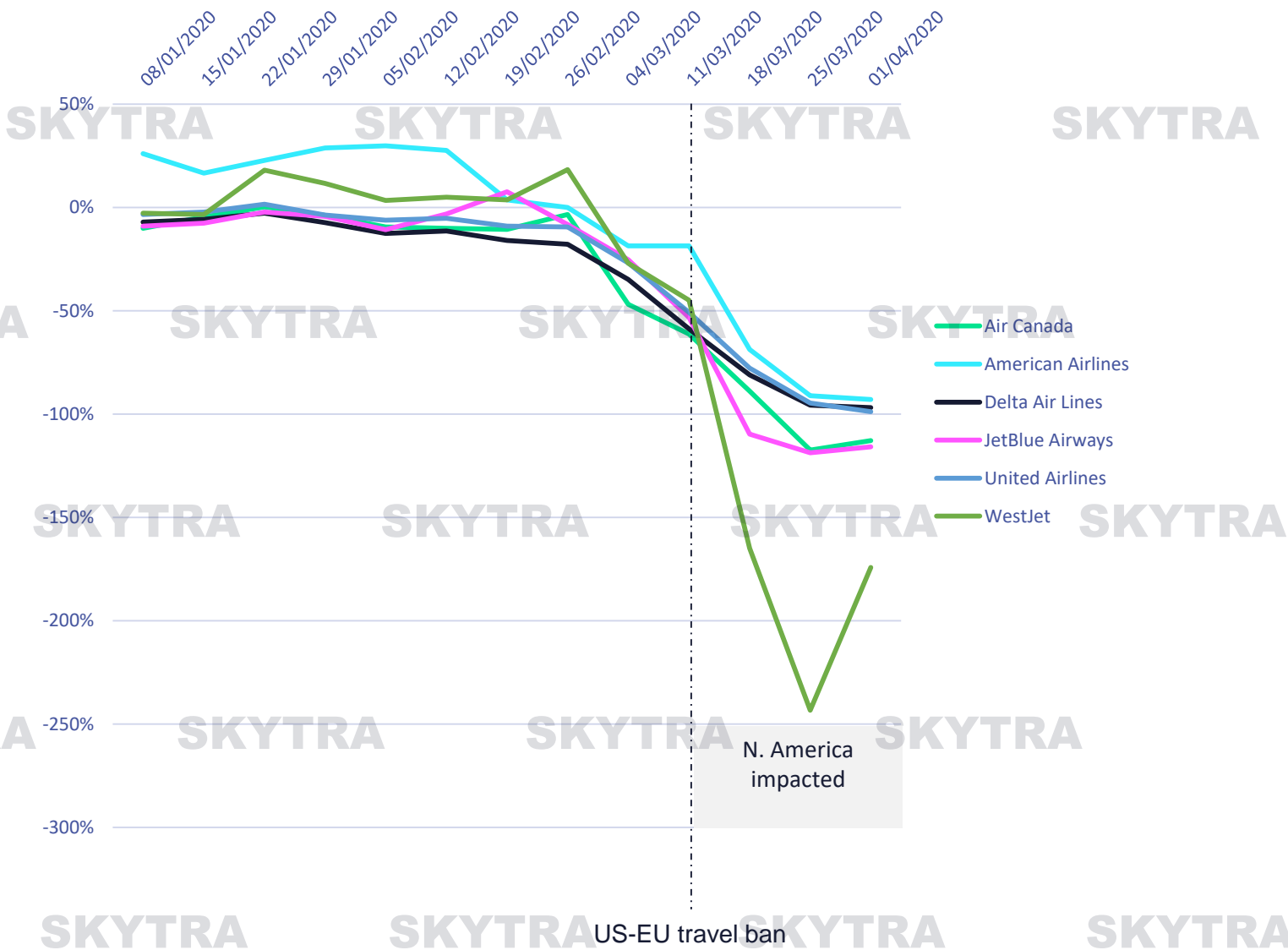
N. American carriers: Weekly ticket sales

A solid start, tough March

The North American carriers fared comparatively well through January and February before following the rest of the world.

Refund policies?

Westjet seem to have particularly abrupt start to the crisis, perhaps the suspension of their cancellation policy is a factor, similarly to JetBlue who announced a suspension of change/cancellation fees from late February to mid March. To date American Airlines have suspended the least capacity the figures here seem to support this approach.



The background of the slide is a dark map of the world. Overlaid on this map is a dense, intricate network of glowing green lines and nodes. These lines represent flight paths or travel routes, connecting various points across the globe. The nodes, which are small circles, represent airports or hubs. The network is particularly dense in Europe and North America, with many lines radiating from central hubs. The overall effect is one of global connectivity and a complex web of travel options.

What about future sales?

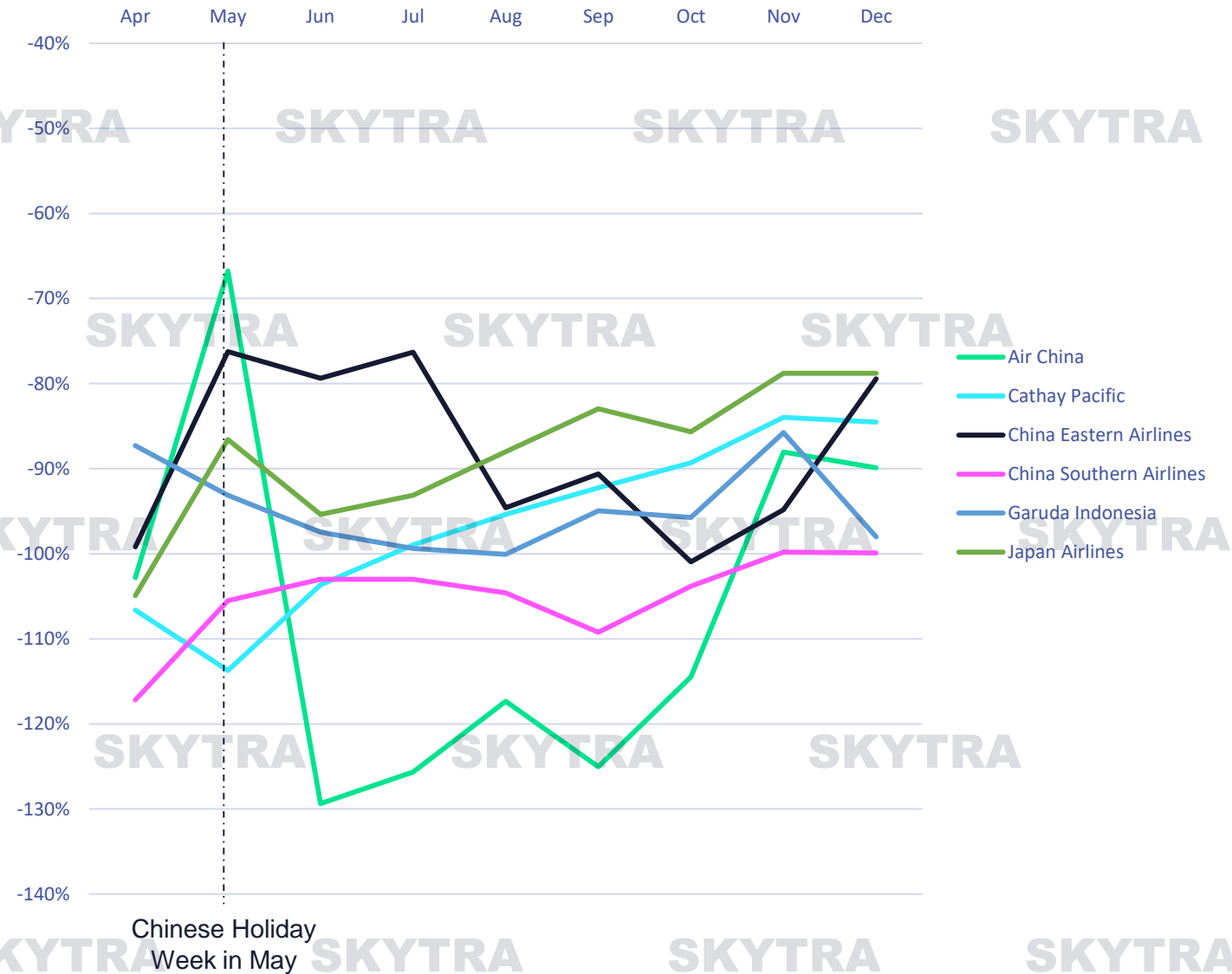
Asia-Pacific carriers: Future sales this week

Asia Pacific market net weekly sales

Each week we compare the value of sales for travel in each upcoming month compared to 2019. In normal conditions these are signals of how the market will perform that are stronger the closer in time you get...

Little optimism visible yet

It appears that China Eastern and Air China may be capturing a part of holiday week in China where flights are being reinstated. JAL also seem to have slightly more sales for the later part of the year over the course of this past week, similarly to the N. American carriers.



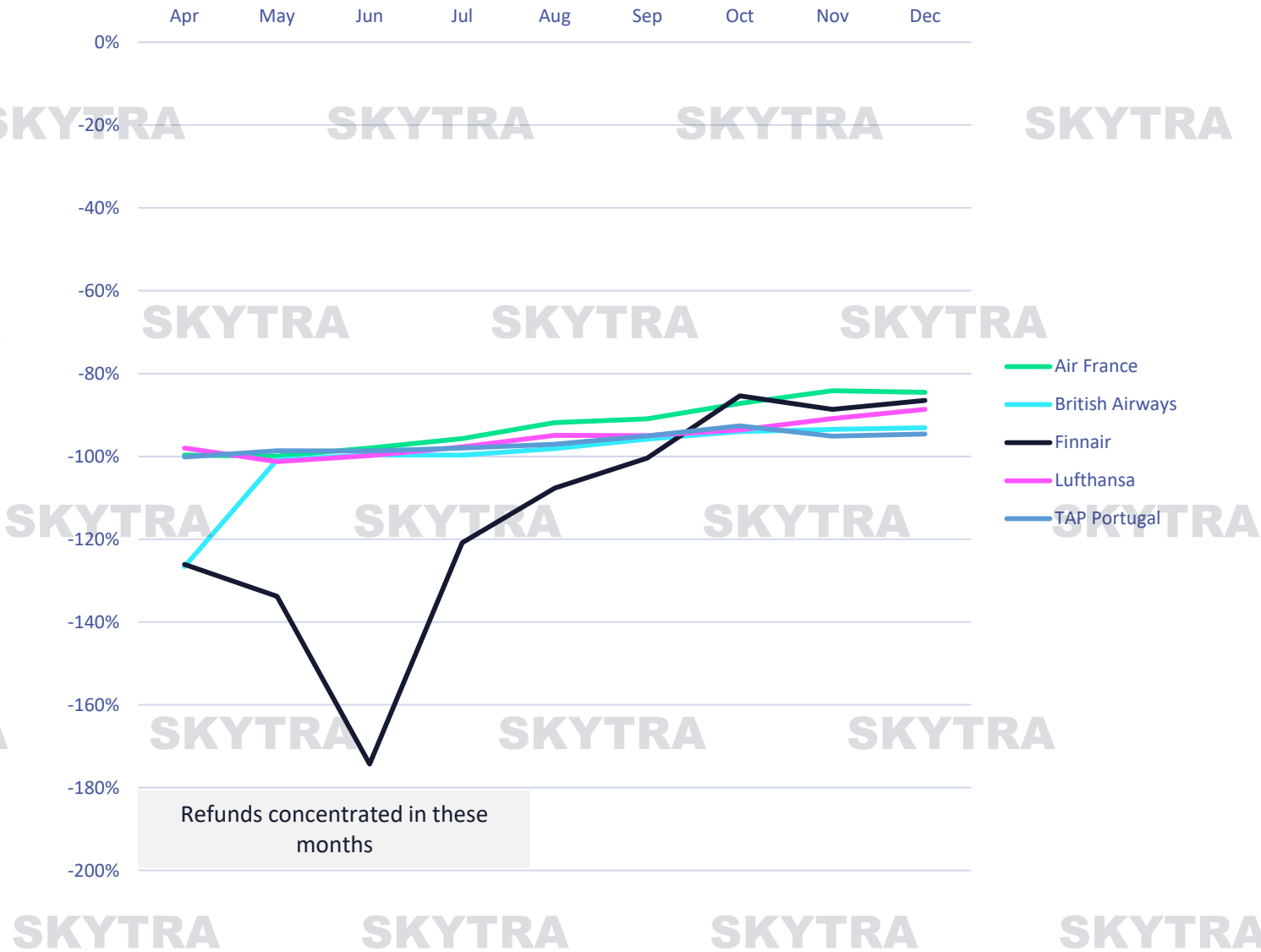
European carriers: Future sales this week

A different view of the same data

Like on the previous slide we are looking at what has been estimated as sold this past week for travel in the future, so of the refund level identified earlier for Finnair we see a high concentration of refunds April through June.

No outliers for the European carriers

As of this week sales for travel in the future are down across the board this week.



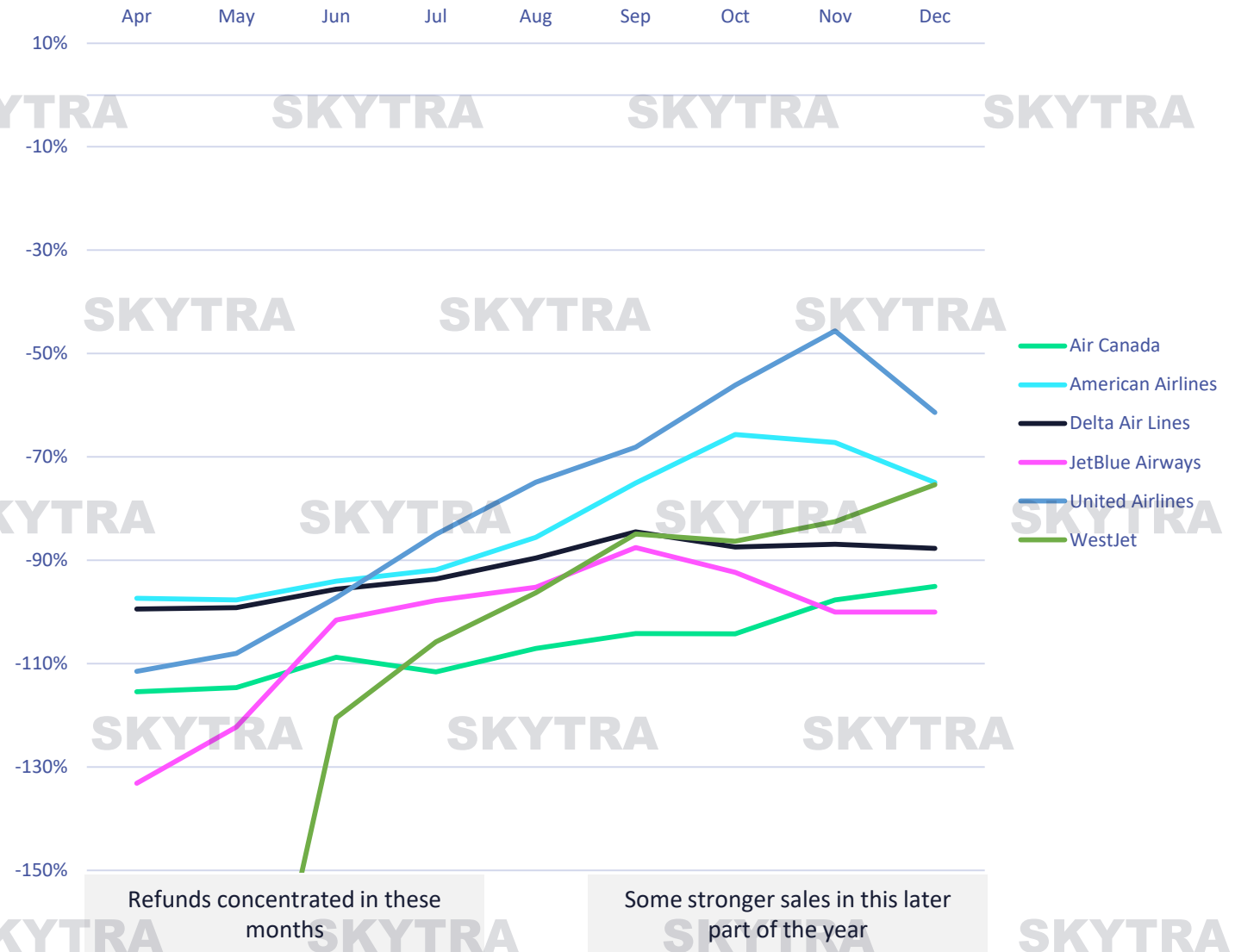
N. American carriers: Future sales this week

A starting point... For a rich data set

Again we see here that refunds for both WestJet and JetBlue are very high for April and May, with significantly less long term booking than United, American or Delta... Wouldn't it be interesting to combine this with analysis of the typical booking curves? After all low cost or domestic flights typically fill later.

The most optimistic market studied

The N. American market has been hit later by COVID-19, which may a role in customer behaviour or indeed the different approach to the crisis taken by the authorities in the USA to date. The CEO of Delta announced to employees that they expect Q2 to be tougher than Q1 with revenue down by 90%. Our data seems to support this analysis





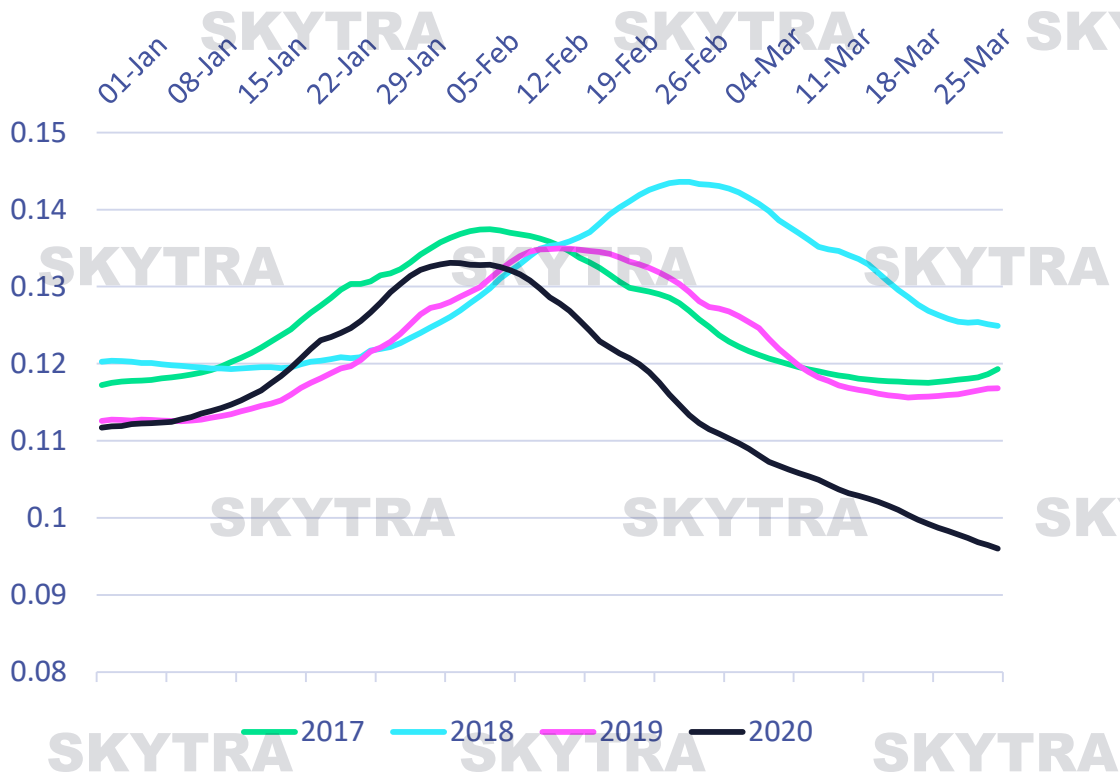
Skytra price indices

Skytra Indices 2020: APAC-APAC

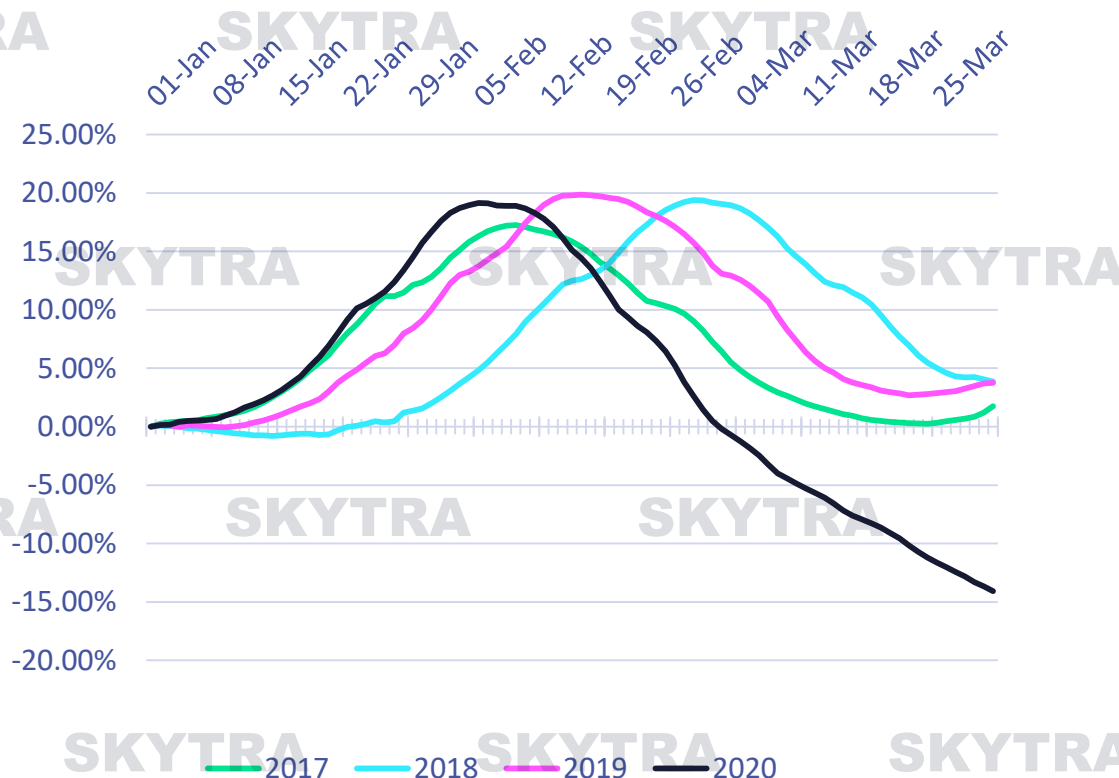
17% – 19% down

The airline industry has thin margins
pre COVID-19 Statista predicted **5.5% margin for the industry**

Skytra Indices – Quarter 1 values 2017 - 2020



Skytra Indices – Comparing changes from Jan 1st

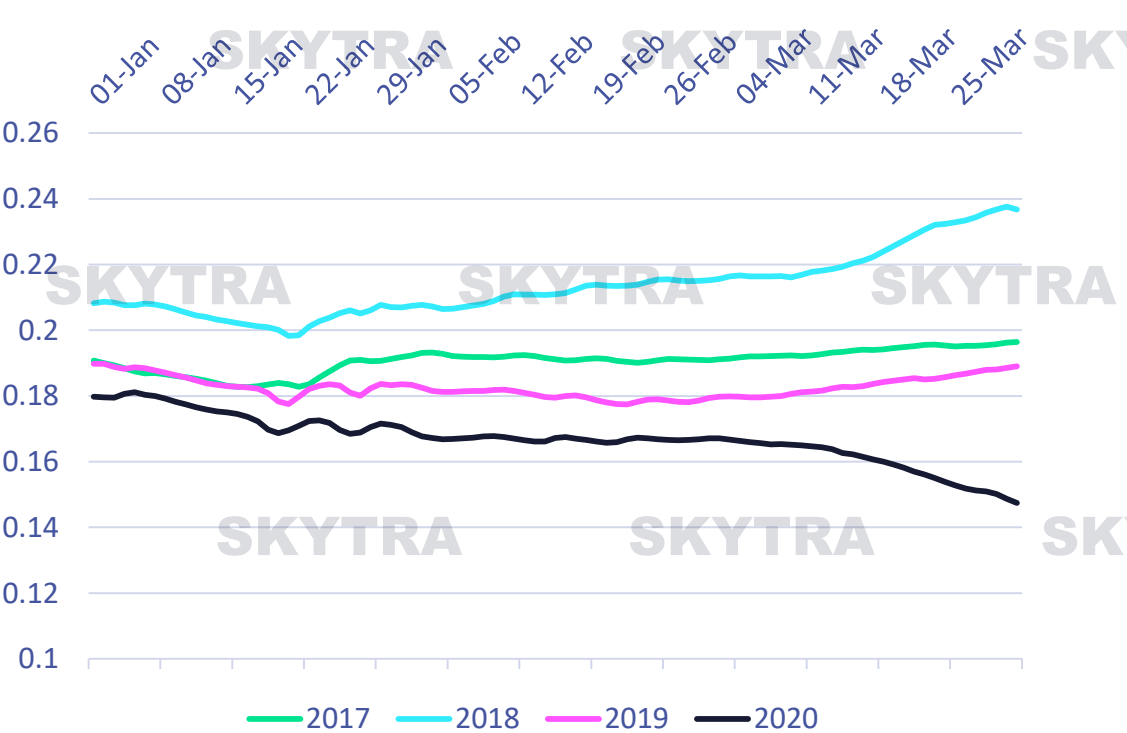


Skytra Indices 2020: Europe-Europe

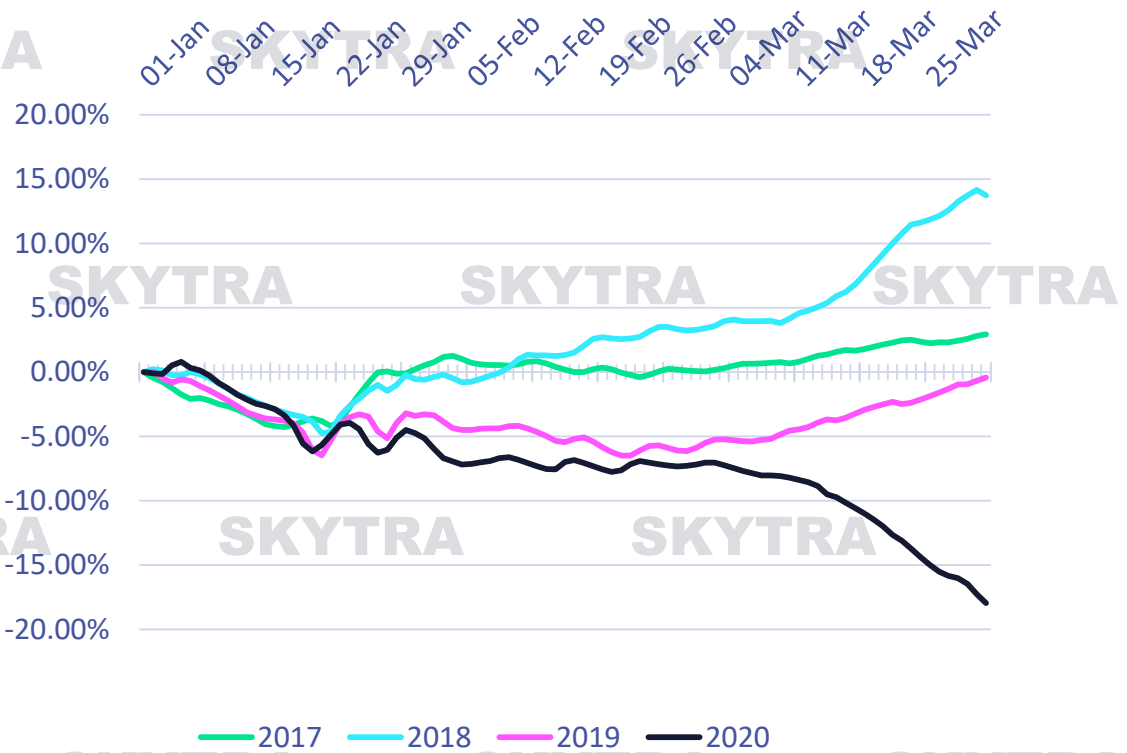
18% – 22% down

If airlines had been able to hedge 2020 prices they **might** have been able to **offset losses incurred through fuel hedging**.

Skytra Indices – Quarter 1 values 2017 - 2020



Skytra Indices – Comparing changes from Jan 1st

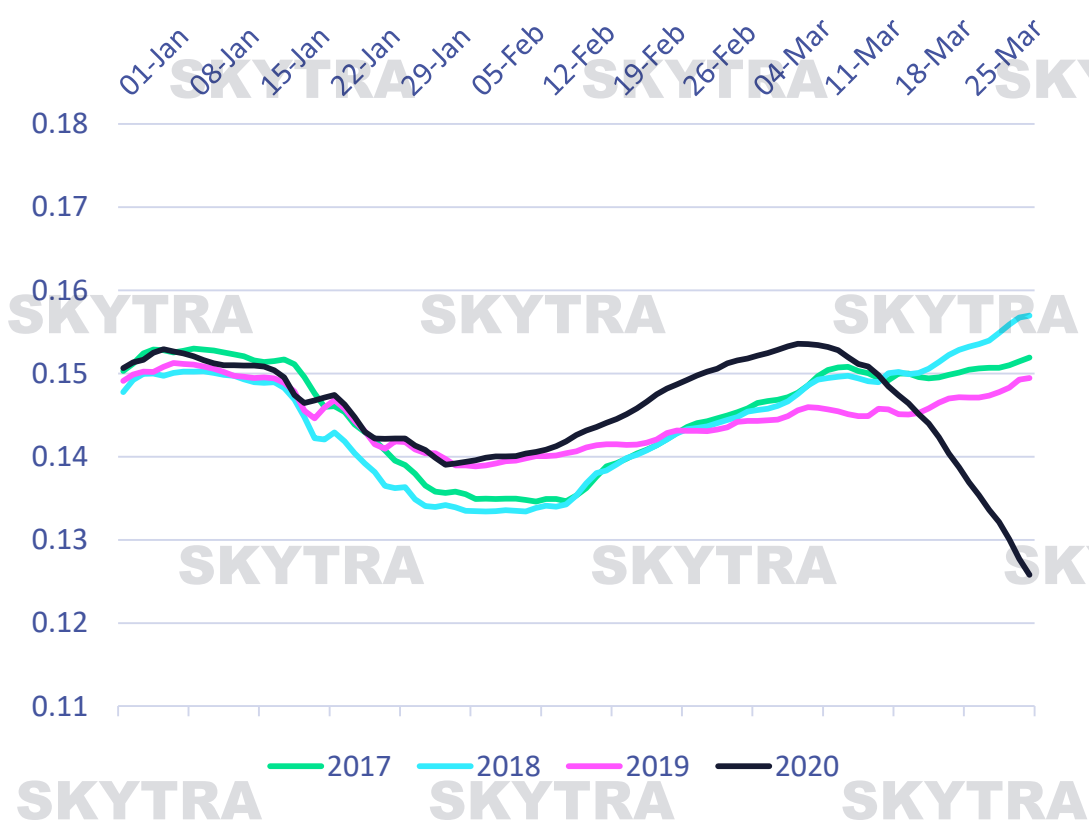


Skytra Indices 2020: N. America – N. America

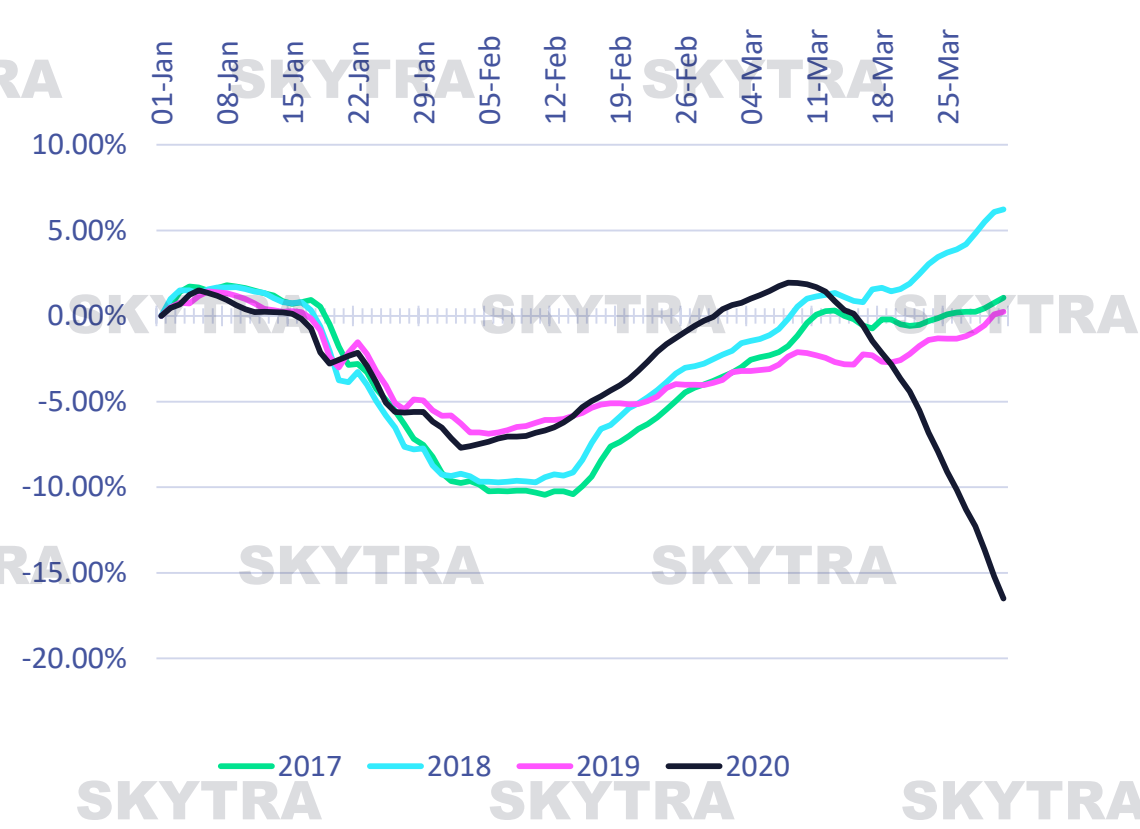
15% – 17% down

How will prices behave when restrictions are lifted?
How will the return of the 737 Max affect things?

Skytra Indices – Quarter 1 values 2017 - 2020



Skytra Indices – Comparing changes from Jan 1st



Skytra database & method

Stress testing

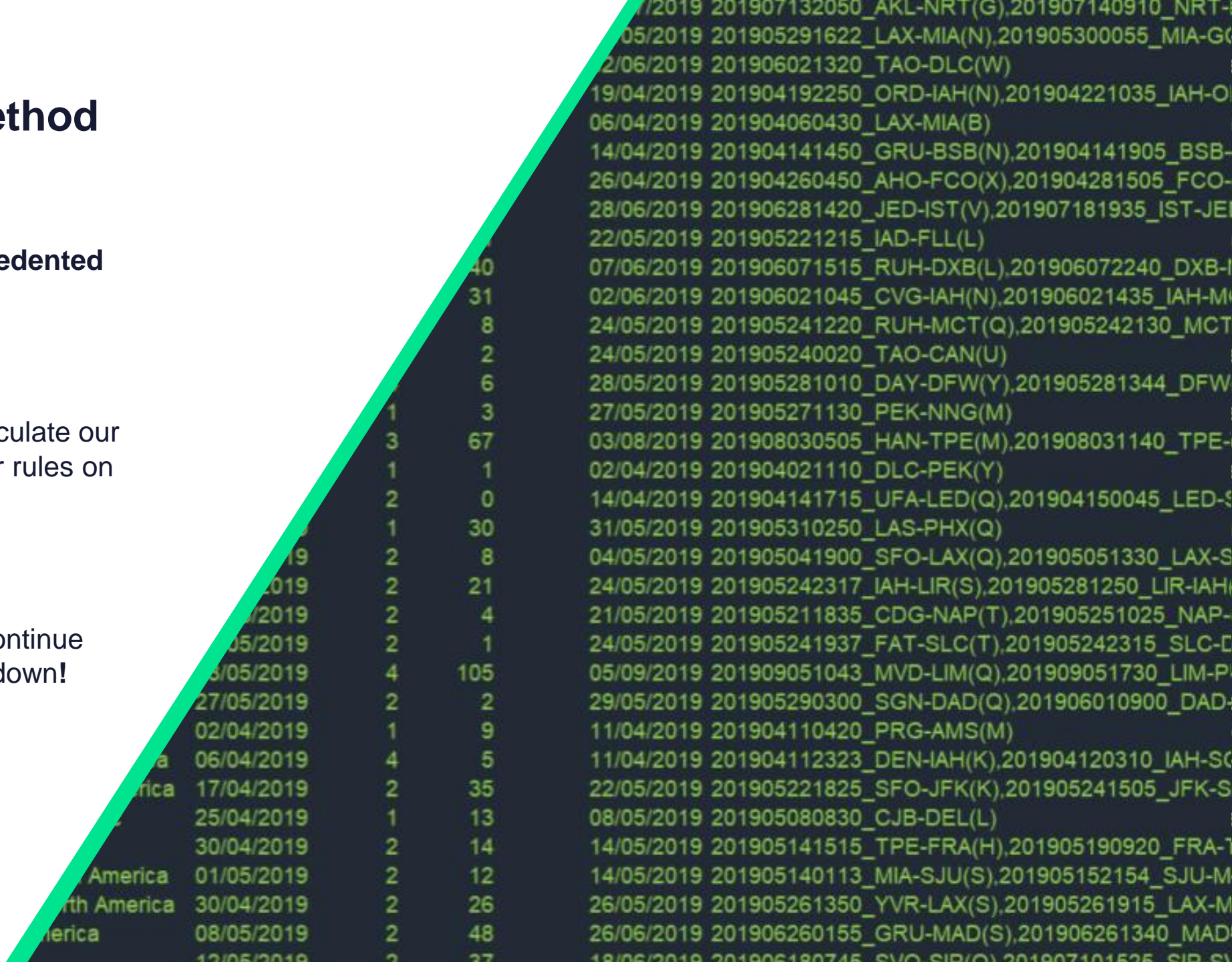
We are all living through unprecedented challenges.

Data volumes

We still receive enough data to calculate our indices although we may tweak our rules on minimum data.

Technical resilience

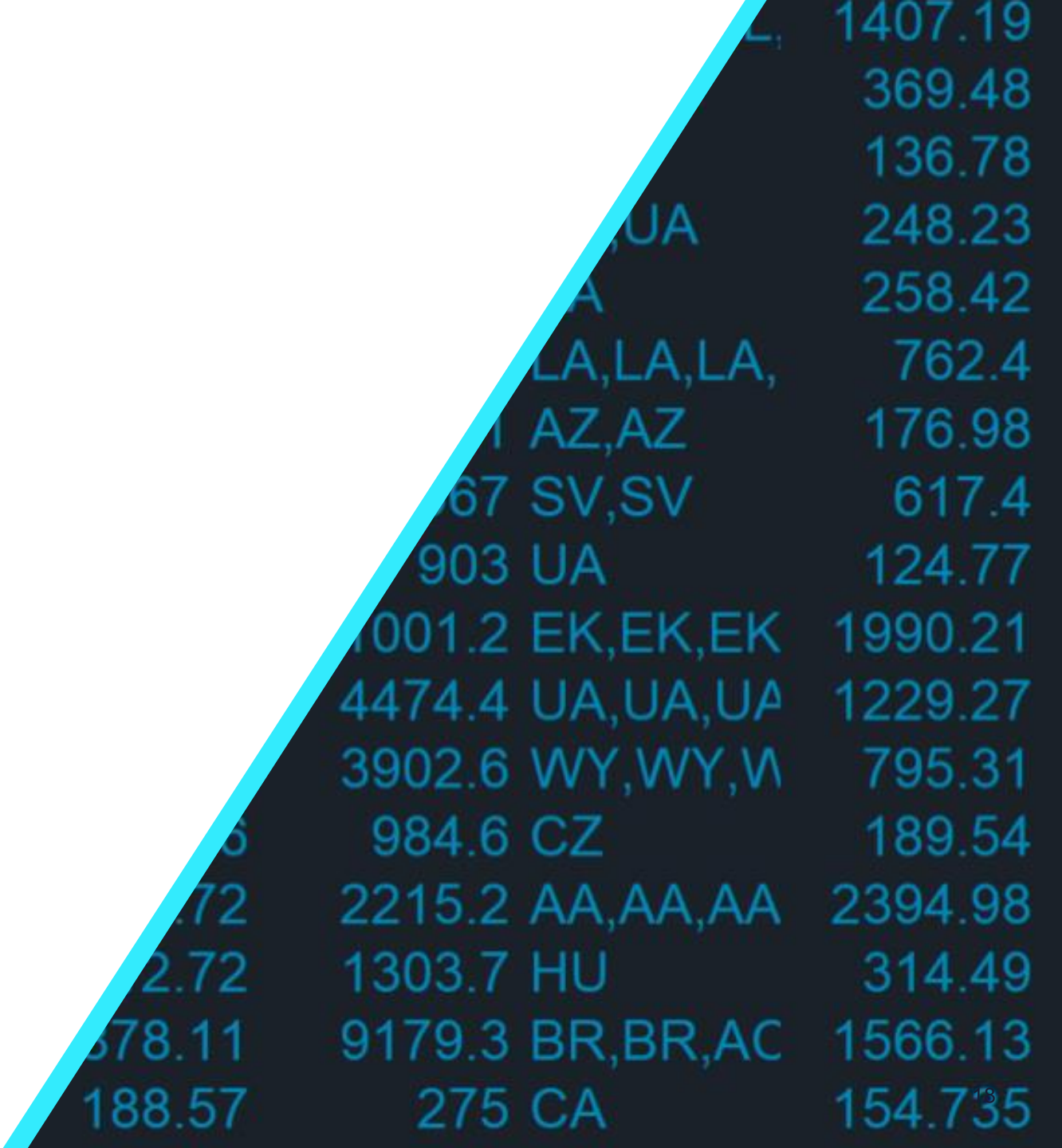
We are able to run our tools and continue development despite being in lockdown!



Flexible ticketing

Stimulating the market?

- Anecdotally it seems that Airlines are allowing free refunds and modifications to encourage bookings for future travel in these uncertain times.
- Perhaps the ability to manage opportunity risk incurred by Airlines selling flexible discounted tickets would have been attractive...
- Perhaps travel agents would have been able to execute similar strategies if they could offer flexibility to their customers.





THANK YOU!

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SKYTRA

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