Session 3

A deep dive into the LATAM Air Freight Market Trends, Challenges and Opportunities

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Cargo Facts LATAM
Ciudad de Panama, May 16, 2023

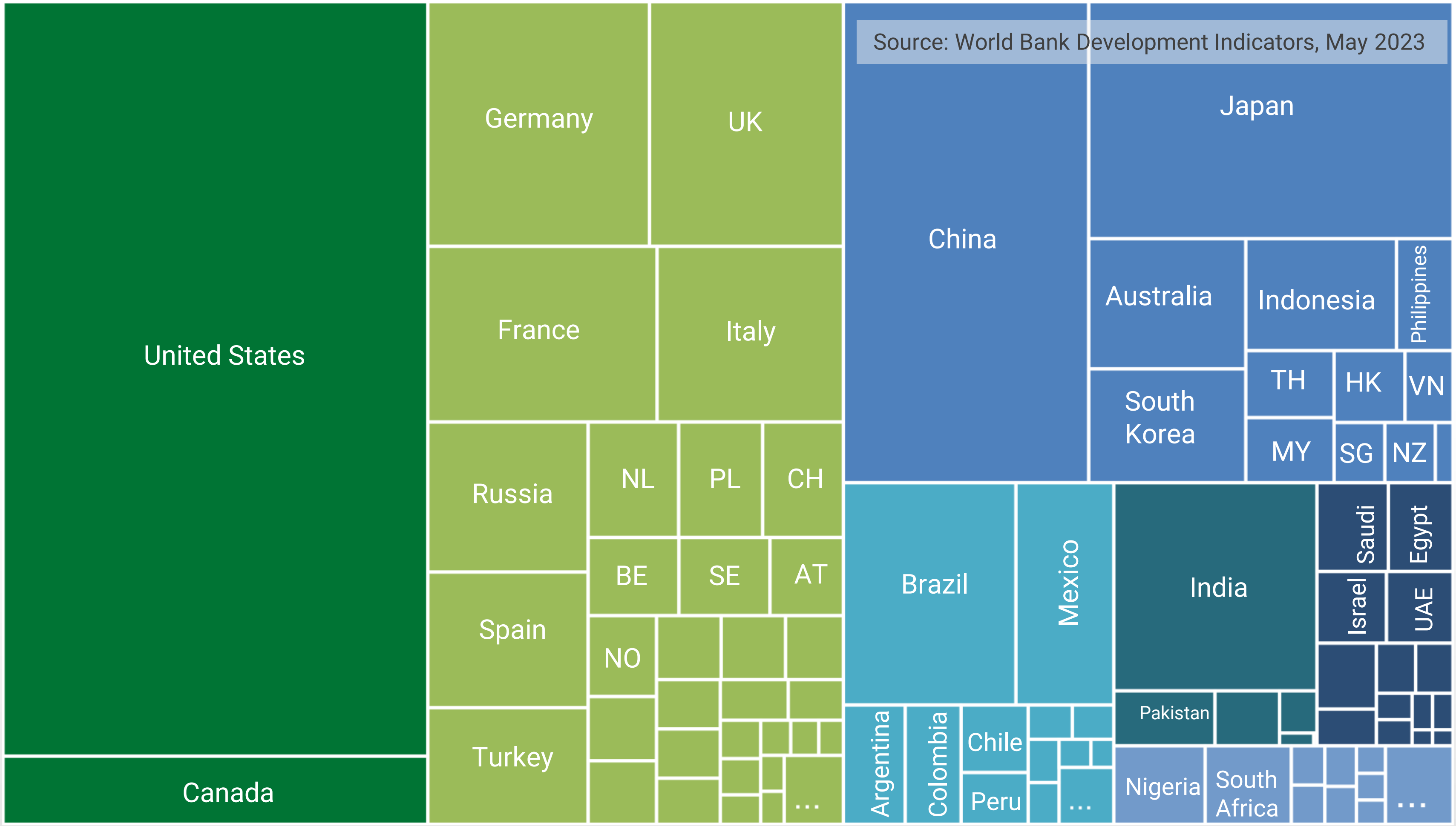
Agenda

- Key Trends and Developments
  - E-commerce
  - Express
- 20-Year Freighter Forecast
- 12-Month Air Cargo Outlook
- Conclusion

E-Commerce
Key Trends and Developments

The US, the European Union, the UK, China and Japan account for two thirds of worldwide consumer spending.

Global Consumer Spending by Country (May 2023)



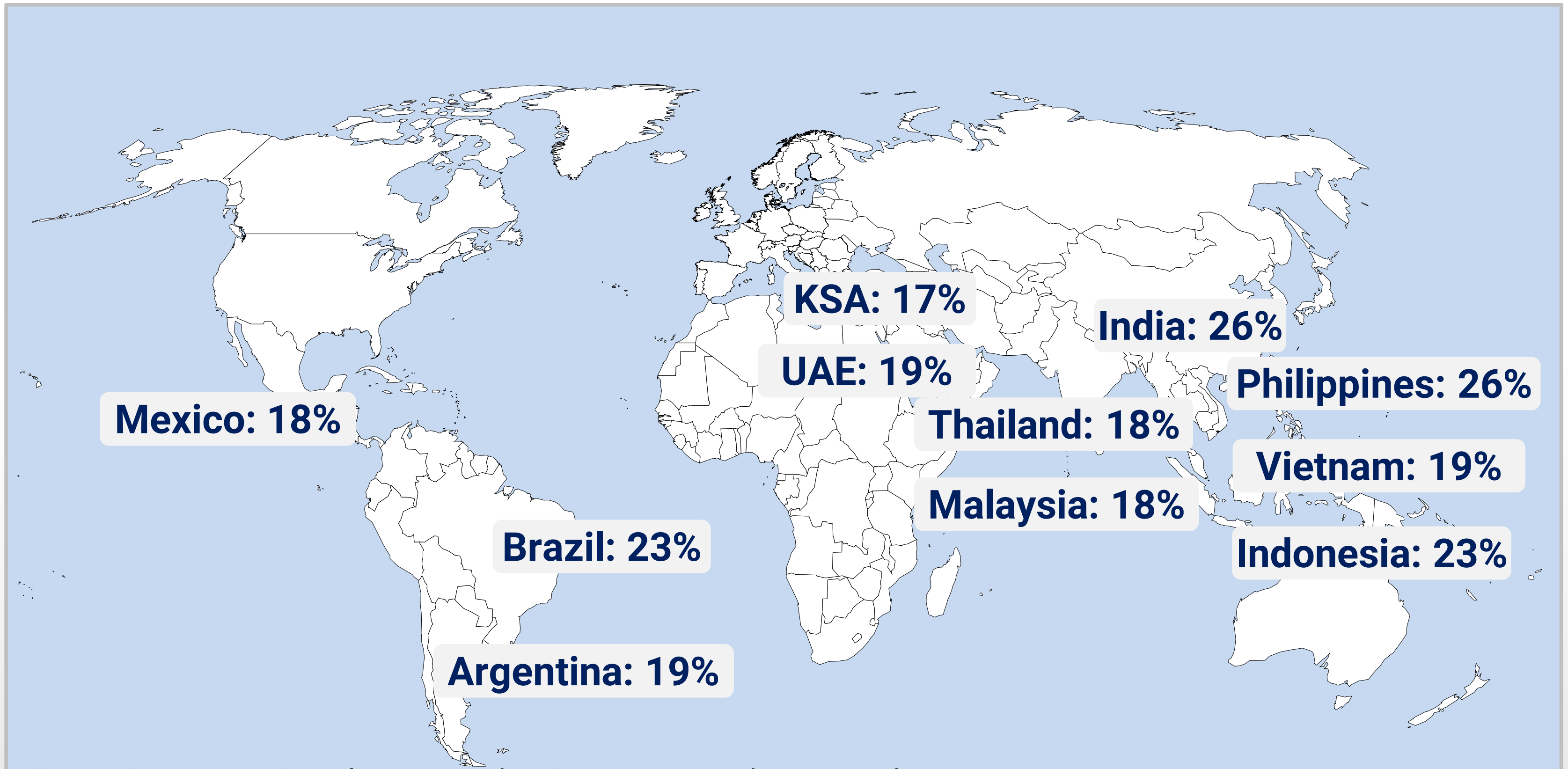
China, the US, the European Union, Japan and the UK are also the largest domestic e-commerce markets.

E-Commerce Revenue by Market 2022

Source: Shopify, eMarketer, Eurostat

South East Asia, the Middle East and Latin America registered the highest growth in terms of e-commerce sales, overtaking the more established markets.

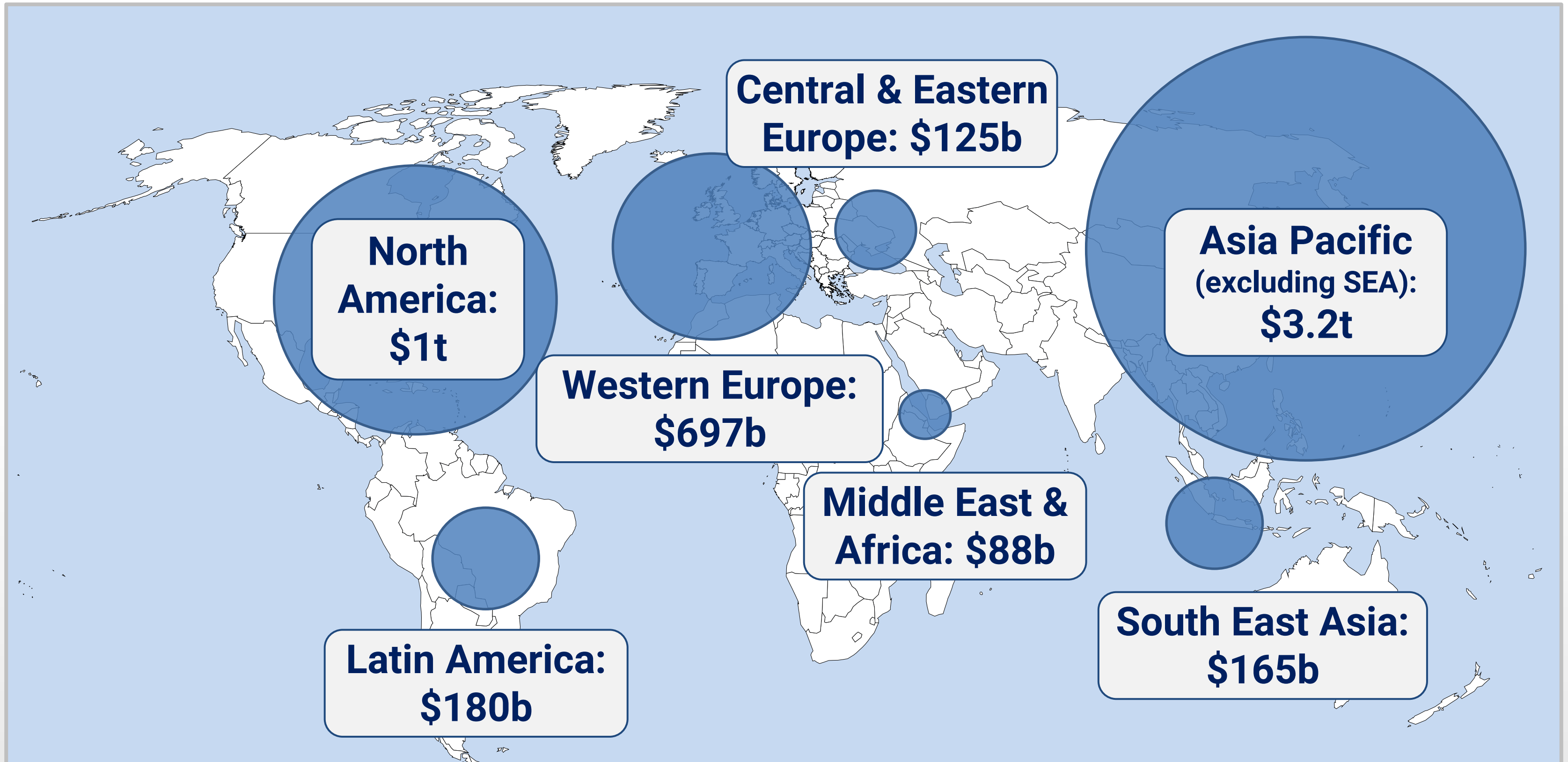
Largest E-commerce Revenue Growth Markets, 2022



Source: Cargo Facts Consulting Research, E-Commerce Foundation, E-Marketer, Eurostat

These emerging markets will continue to display the highest growth rates over the next years but off a much smaller base.

E-Commerce Market Revenue by Region, 2022



Source: Cargo Facts Consulting Research, E-Commerce Foundation, E-Marketer

Latin America's e-commerce market will continue to evolve rapidly over the next few years, with e-commerce giants investing in the region.

Largest E-commerce Revenue Growth Markets (LATAM), 2022

CHALLENGES

High import taxes and complex trade rules can deter cross-border spending.

Ongoing gaps in the infrastructure fundamentals needed to support e-commerce.

Source: Cargo Facts Consulting Research, E-Commerce Foundation, E-Marketer, Eurostat

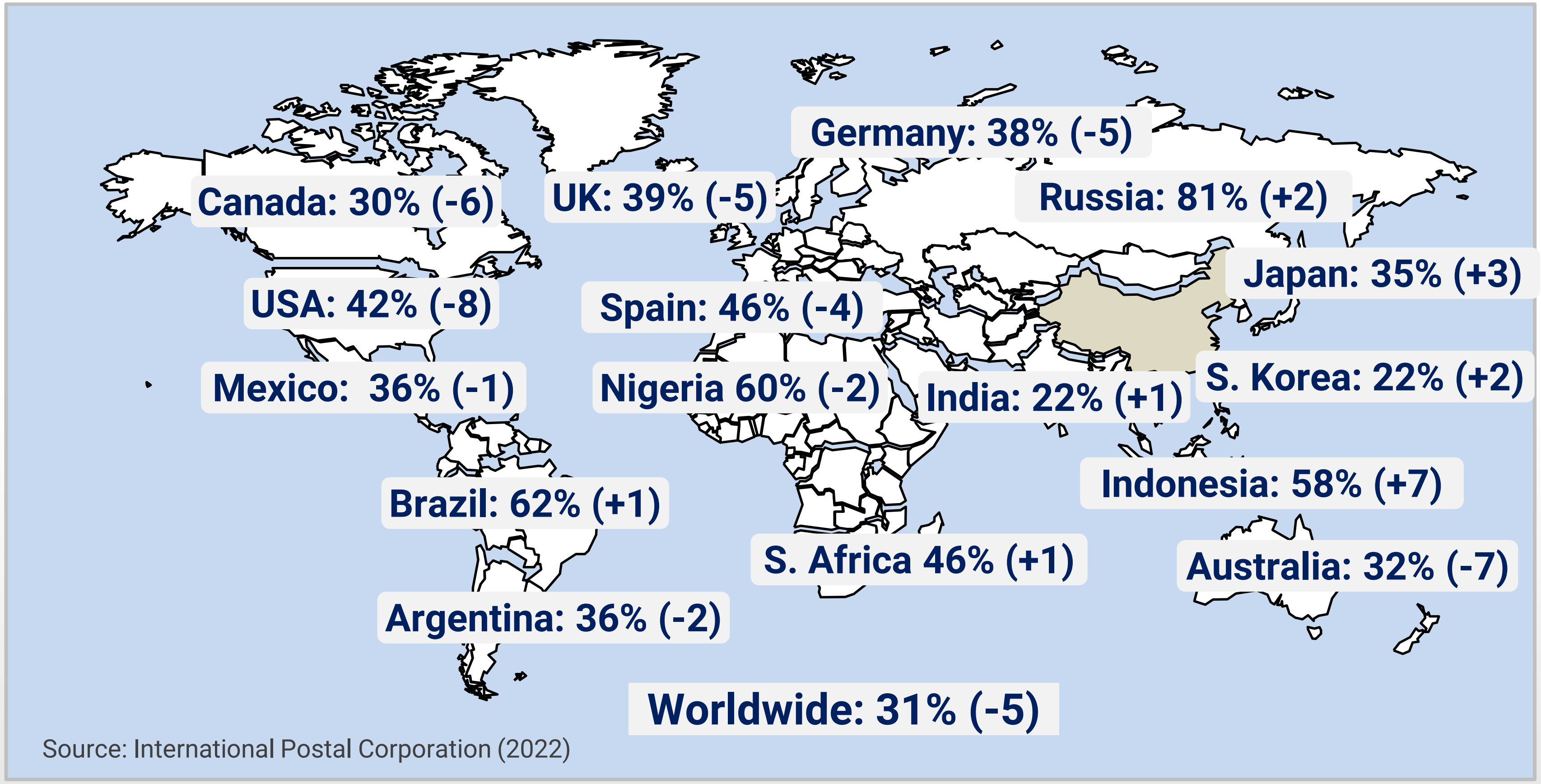
OPPORTUNITIES

International merchants are beginning to focus on the growing LATAM market.

Incoming merchants can make a strong start by observing local trends and adapting to suit a large unserved population.

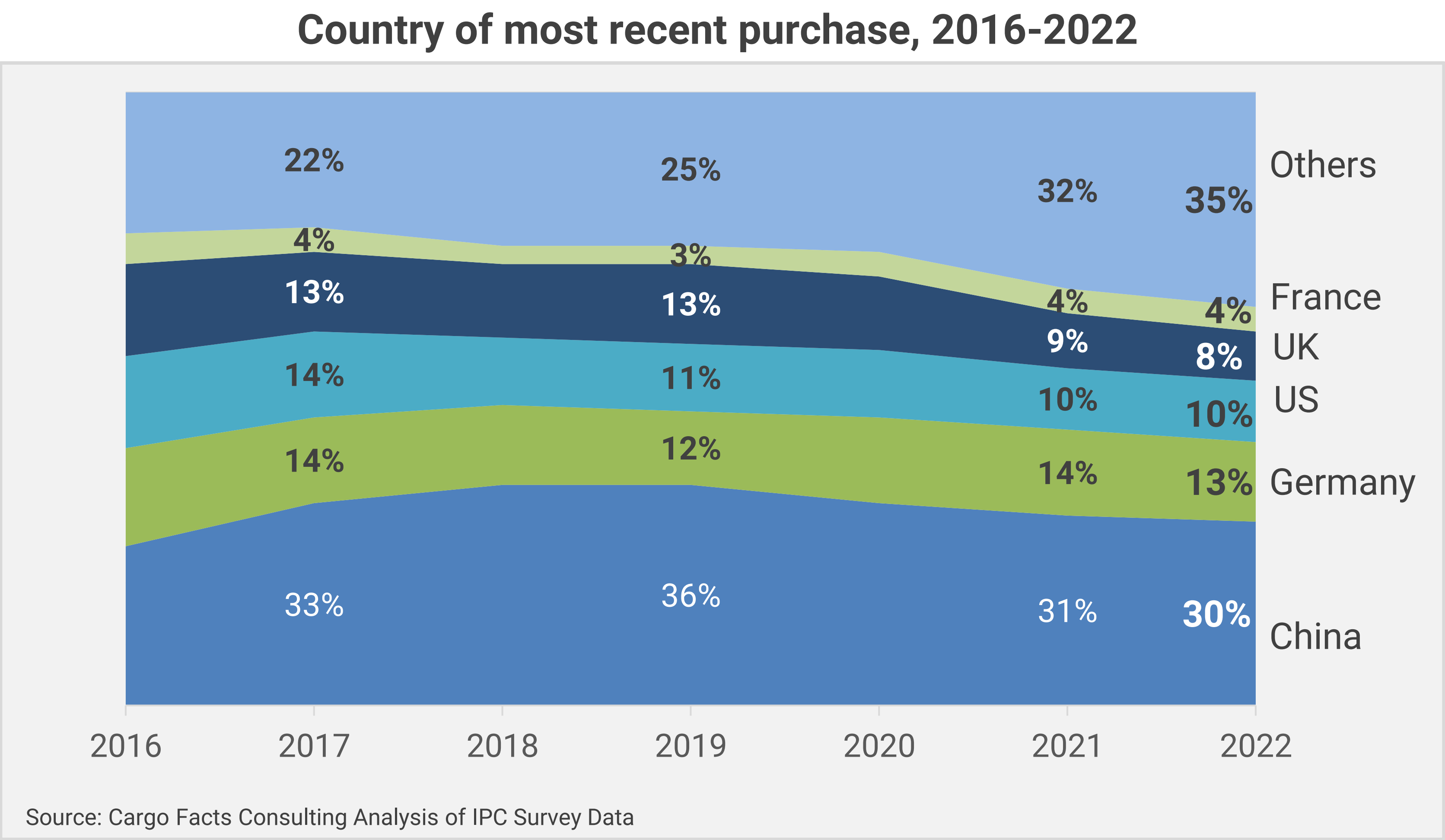
China is still the primary source of cross-border e-commerce but this rate decreased after 2020, mainly because of the lack of international capacity.

Share of Chinese Cross-Border Purchases 2019 vs. 2022

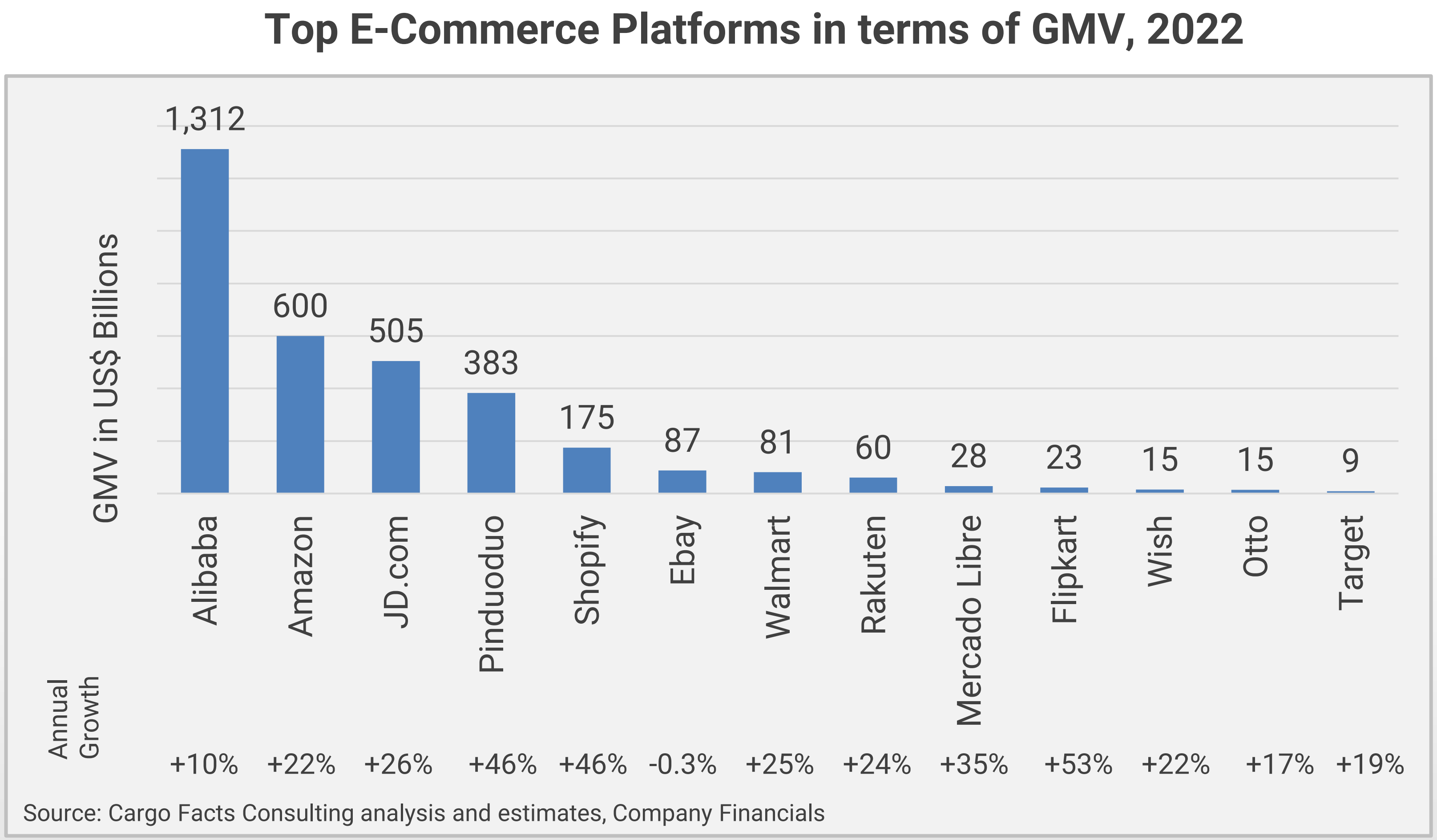


Source: International Postal Corporation (2022)

Cross-border e-commerce activity has geographically diversified over the last few years.



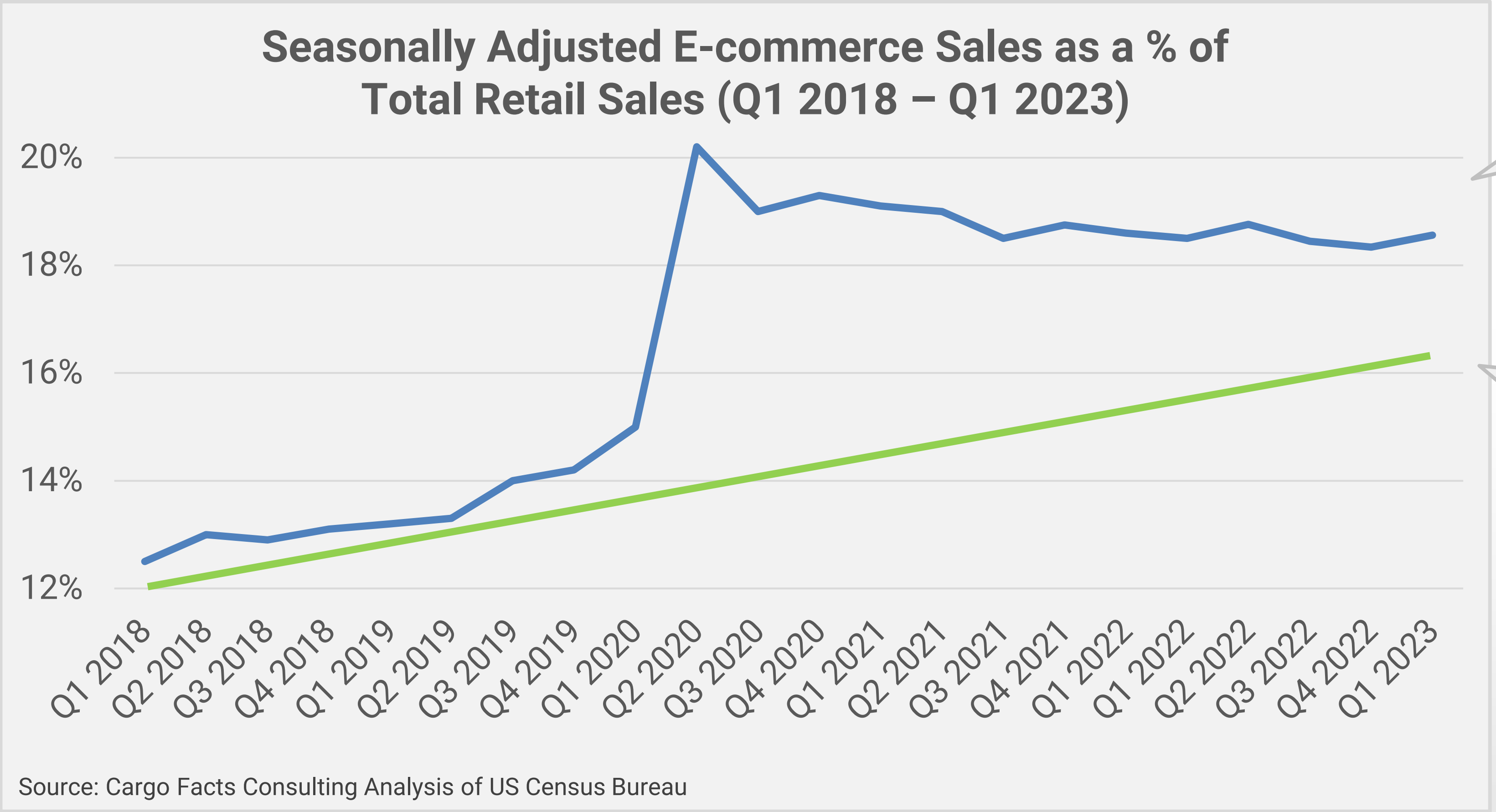
Thirteen platforms account for half of global Gross Merchandise Value. Alibaba, Amazon and JD.com dominate the business.



Several trends apply across most e-commerce platforms, even though geographical scope and scale vary between regions.

- **Fulfillment costs continue to rise faster than revenues**
- **Own controlled logistics is seen as a competitive advantage**
- **Logistics networks are open to third-party sellers** (Alibaba, Amazon)
- **Some logistics networks are open to third parties who are not sellers** (JD.com)
- **Platforms moving from controlled to insourced logistics**

US e-commerce sales activity continues to move sideways at just over 18% of total retail sales, down from the peak in 2020 but above pre-COVID levels.

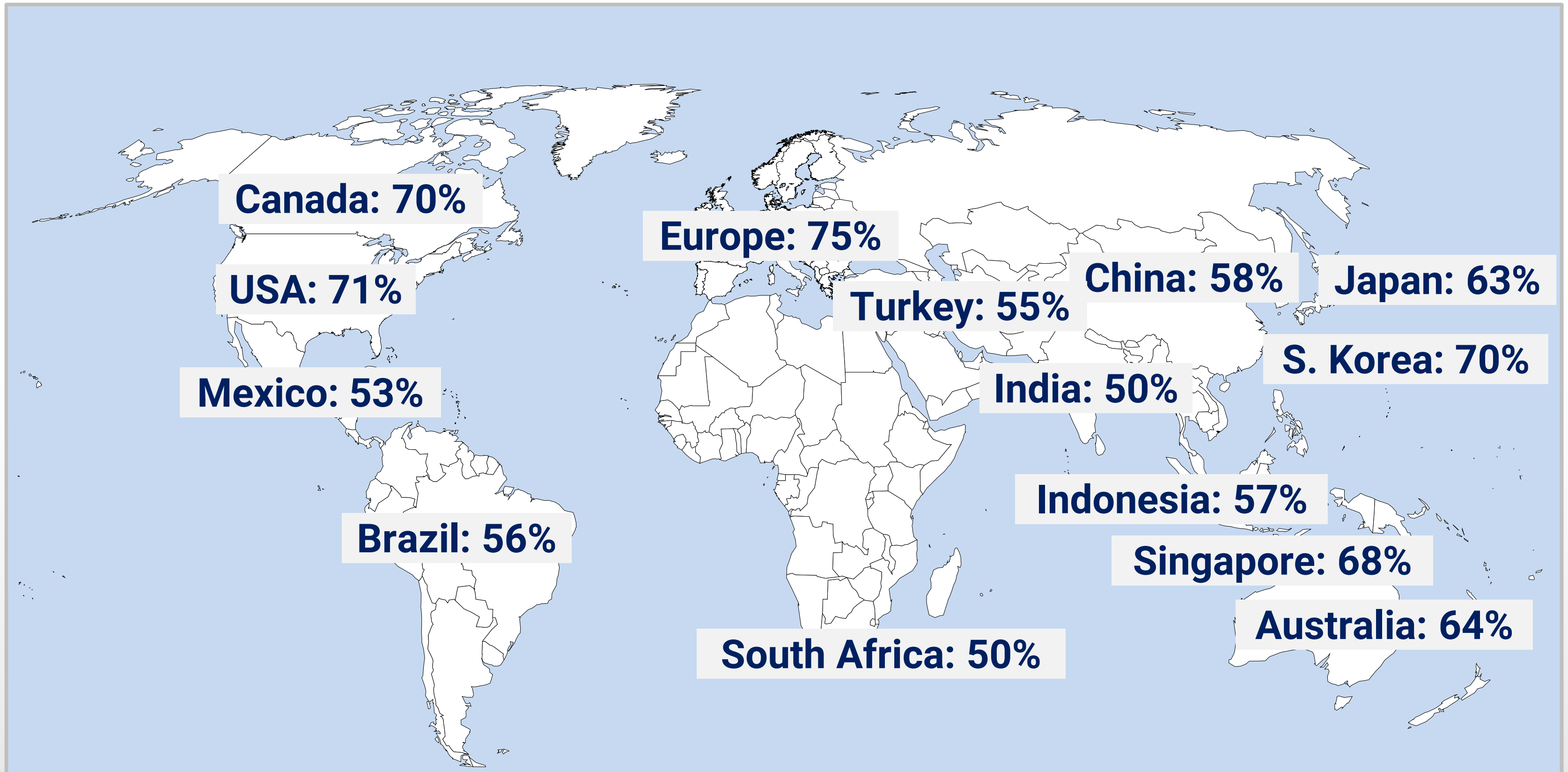


Data excludes Motor Vehicle and Parts Dealers.

Current share is still 1 point above pre-COVID trendline (2018-2019)

Postal networks have become 'e-commerce parcel networks' - good for volumes but requiring large investments and changes in operating patterns.

Share of E-Commerce Packages in Postal Parcel Networks 2022



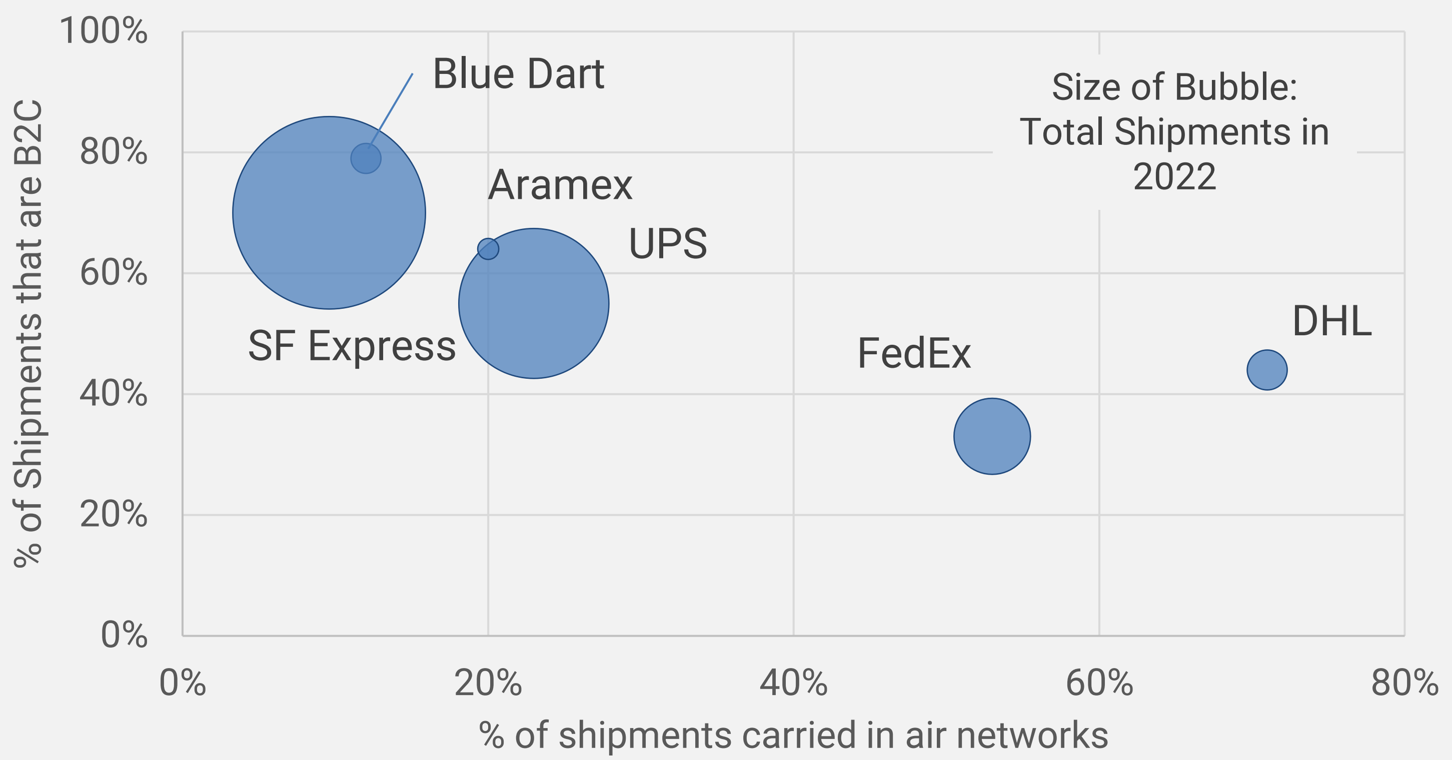
Source: Cargo Facts Consulting Research, Ecommerce Foundation, Euromonitor

Express
Key Trends and Developments

cargo facts CONSULTING

The share of B2C shipments in 2022 stood at about 60% of all shipment volumes vs. 50% in 2019. The return of B2B activity had an impact on the 2022 figures.

Express Carrier Share of B2C vs Share of Shipments Carried by Air 2022

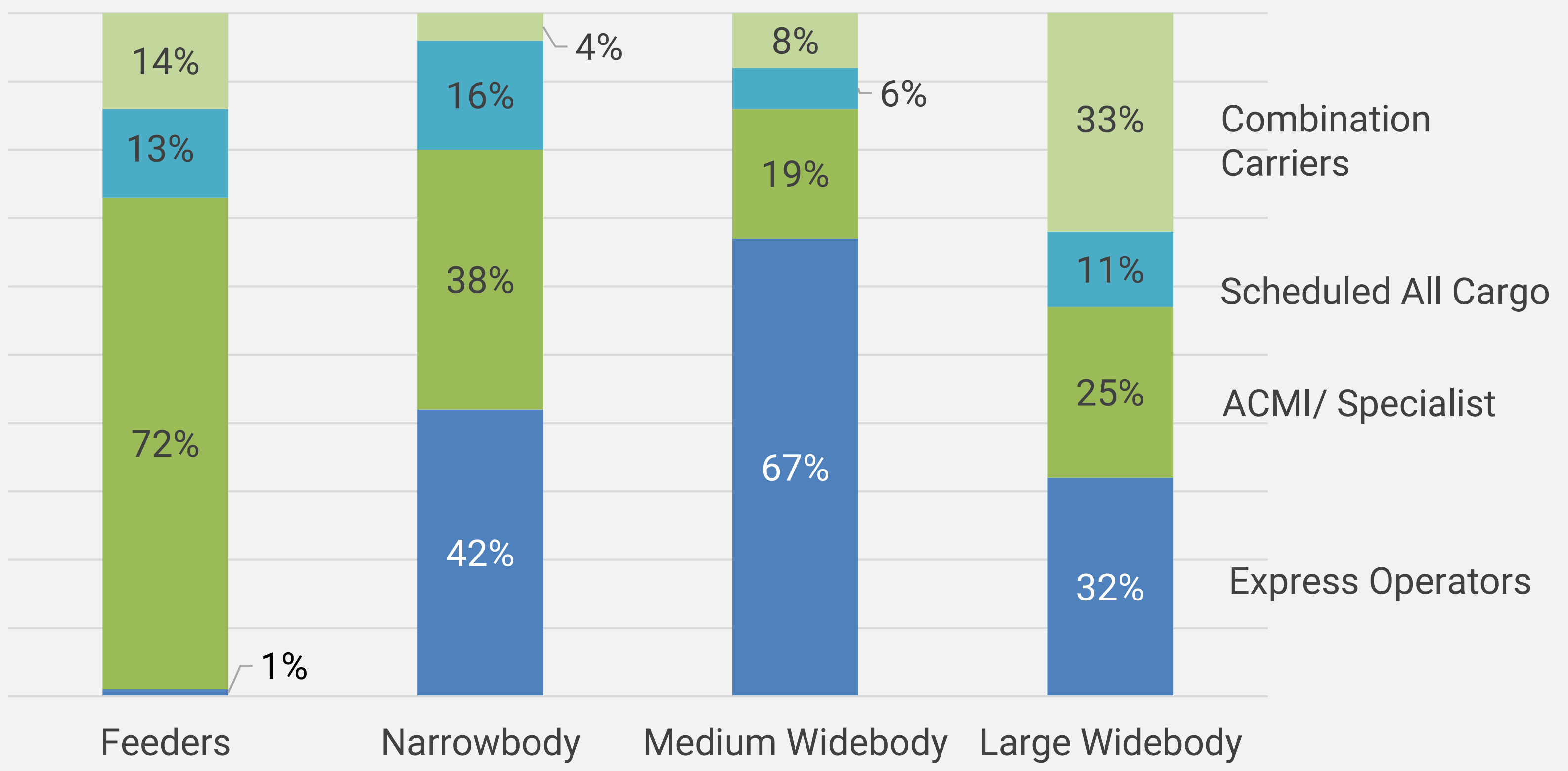


Source: Cargo Facts Consulting analysis of financial reports and estimates

We expect this share to decrease to about 54% of all shipments volumes by the end of 2023.

The operator mix varies substantially across segments. The large widebody segment is home to a diverse set of operators, but everything else is all about express.

Freighter Fleet by Carrier Business Model – Q2 2023



Source: Cargo Facts Consulting analysis of fleet and utilisation data, as of Q2 2023

Two thirds of the world's freighter fleet are operated by or on behalf of 5 companies – FedEx, UPS, DHL, Amazon and SF Express.

The express fleet grew by 6% year over year.

Widebody Type	Number	12-month period change	% of Total Fleet
747-8F	34	+4	3.1%
747-400F	23	-4	2.1%
MD-11F	100	-1	9.2%
MD-10-30F	6	-6	0.6%
777F	92	+8	8.5%
A330-300F	9	+2	0.8%
767-300F	252	+22	23.2%
A330-200F	5	-1	0.5%
767-200F	33	-1	3.0%
A300-600F	157	-1	14.5%
TOTAL	**711**	**+24 (+3.5%)**	**65.5%**

Narrowbody Type	Number	12-month period change	% of Total Fleet
757-200F	234	-6	21.5%
A321-200F	4	+2	0.4%
737-800F	43	+23	4.0%
737-400F	86	+17	7.9%
737-300F	6	+1	0.6%
727-200F	2	0	0.2%
TOTAL	**375**	**+36 (10.6%)**	**34.5%**

The number of net additions of aircraft flying for the top three express carriers declined by 22% YoY to sixty, compared with the seventy-seven incremental units recorded at the end of April 2021.

Includes all freighter aircraft in operation for FedEx, UPS and DHL (As of May 1, 2023).

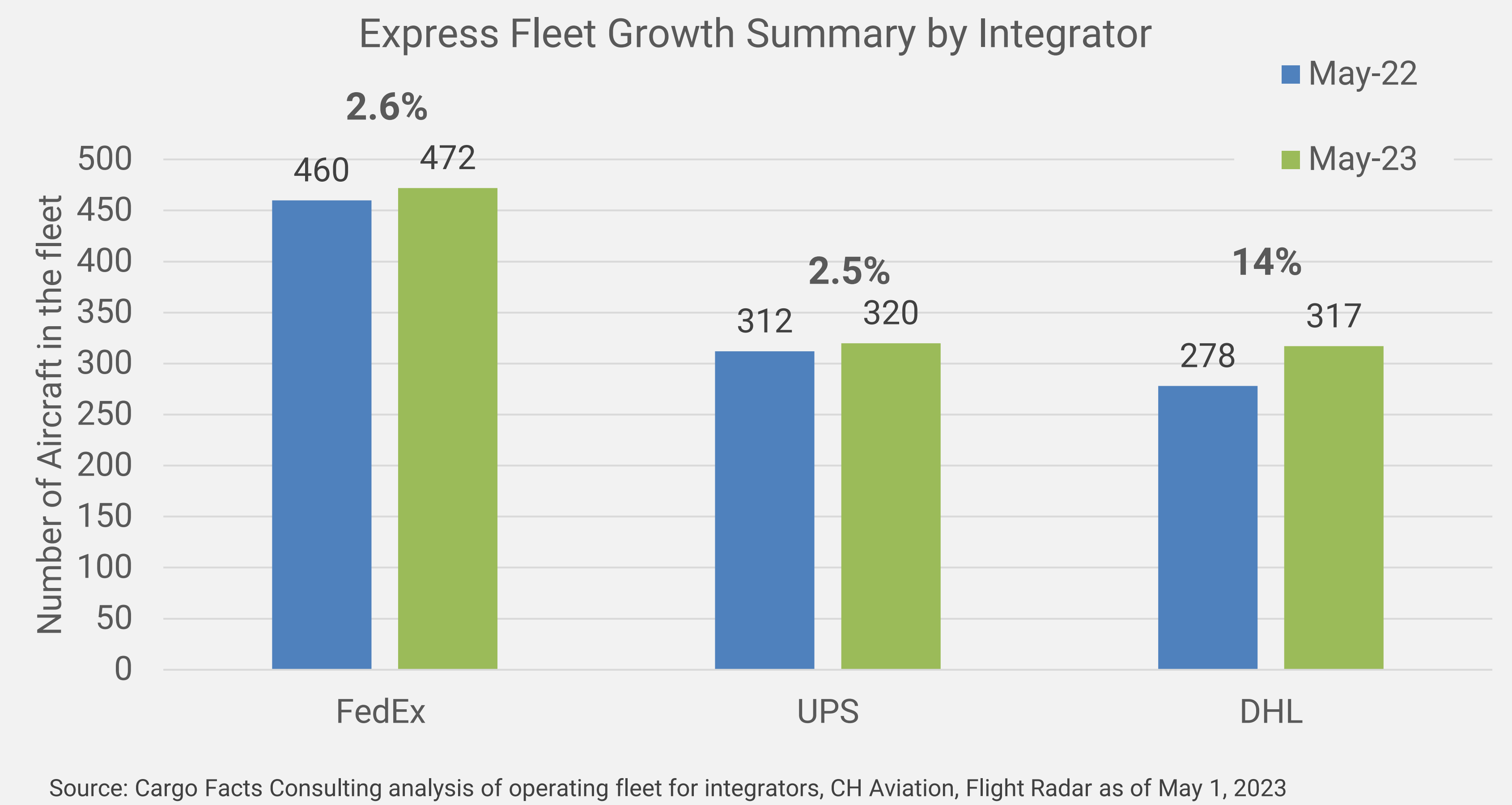
Includes own-operated aircraft as well as those contracted to provide service on an ACMI or CMI basis.

Source: Cargo Facts Consulting analysis of operating fleet for integrators, Cargo Facts, CH Aviation, Flight Radar

DHL Express has remained steadfast in its commitment to growing its fleet, increasing its freighter fleet by 14%.

DHL's fleet operations are best defined as an outsourced hub-and-spoke system managed by global partners, offering various services such as ad-hoc charters, ACMI, CMI, dry lease and joint venture airline agreements.

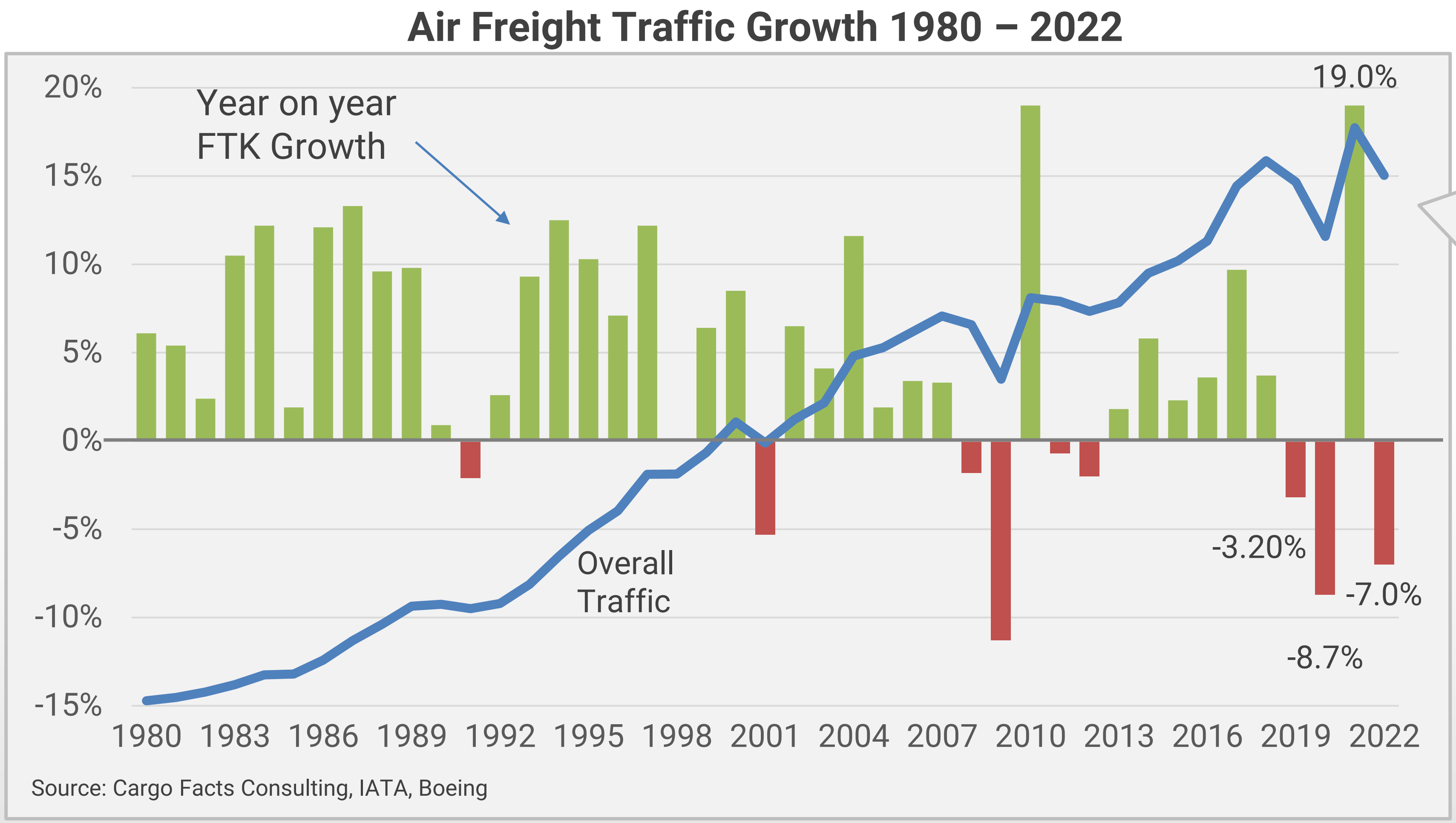
Express operations in Latin America have increased by 15% on average in the last 12 months, with DHL showing the highest growth.



Source: Cargo Facts Consulting analysis of operating fleet for integrators, CH Aviation, Flight Radar as of May 1, 2023

20-Year Freighter Forecast

2022 full-year traffic for air cargo took a significant step back from 2021 levels but was close to 2019 performance.



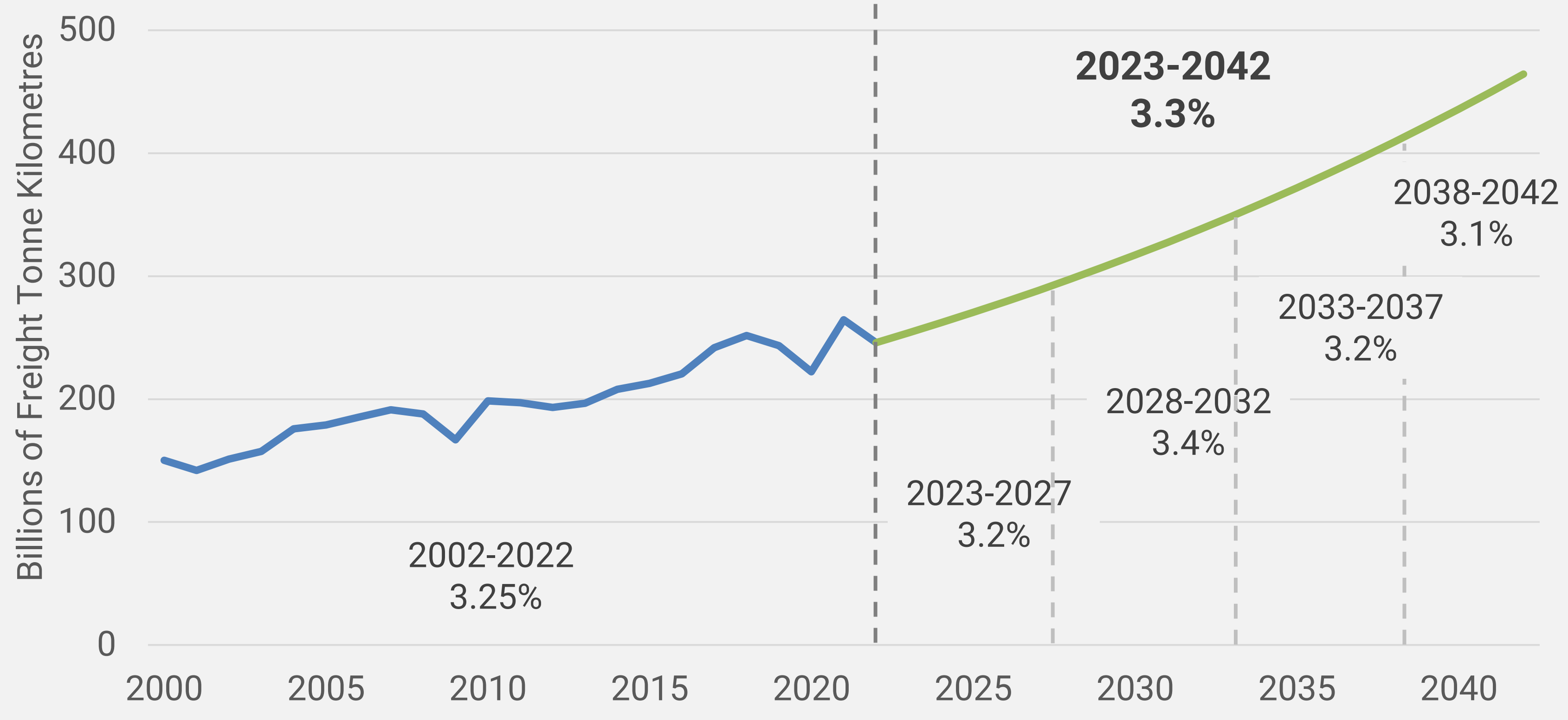
Until 2004, 10 year average annual growth was over 6%, but then started declining to under 2%.

From 2014 rates were trending upwards again.

Cargo traffic growth has been volatile since the beginning of COVID-19.

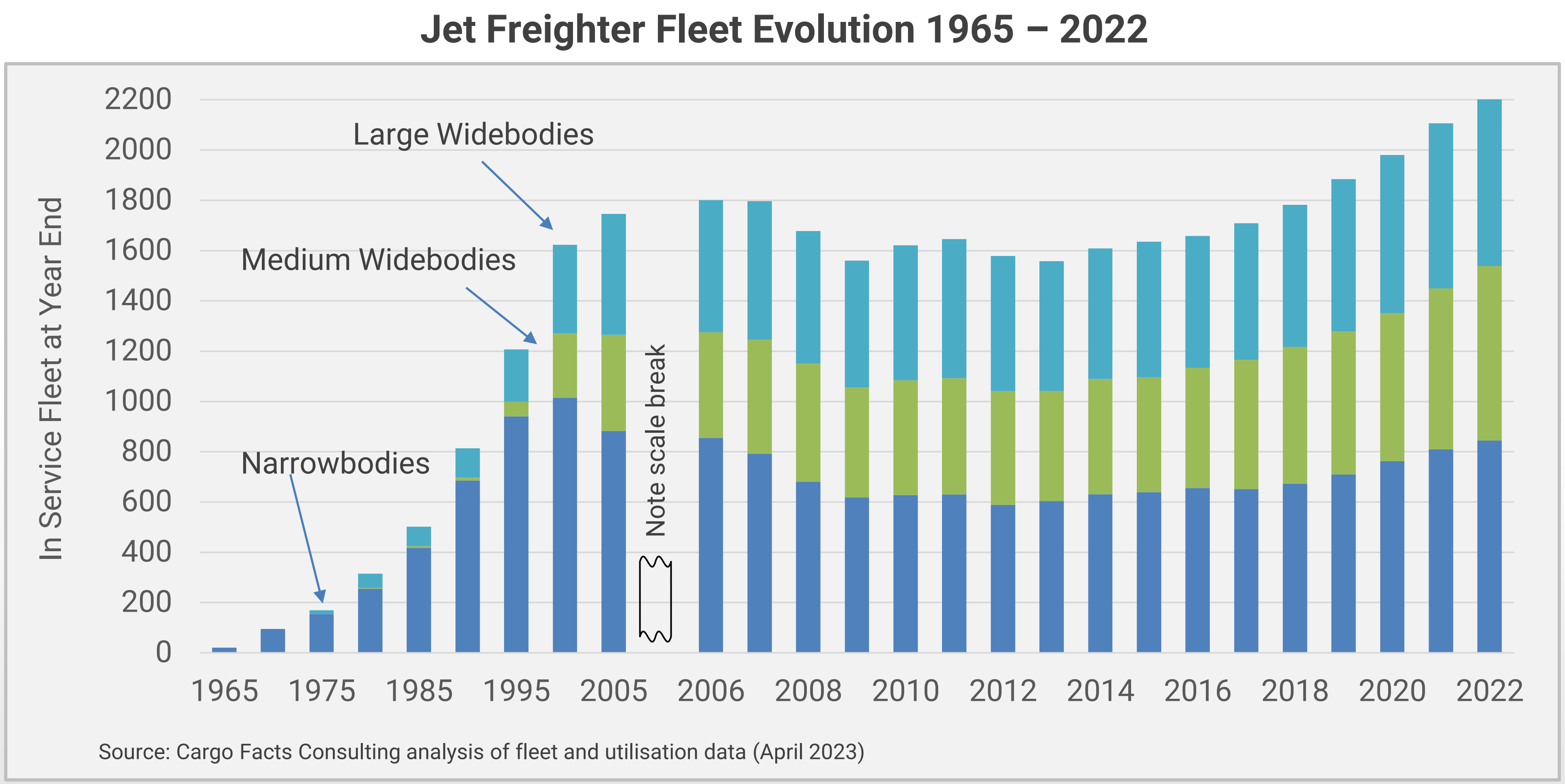
In the long term we expect global air cargo to grow at around 3.3% per annum.

Air Cargo Traffic History and Forecast 2000 – 2042



Source: Cargo Facts Consulting Freighter Forecast 2023-2042

The world freighter fleet grew by over 5% in 2022. Most growth in recent years has been in the medium widebody segment.



The world jet freighter fleet currently consists of about 2,200 aircraft. The feeder fleet is approximately 230 aircraft.

In Service Jet Freighter Fleet, April 2023

Narrow Body 2Q 2023 (2022)	Medium Widebody 2Q 2023 (2022)	Large Widebody 2Q 2023 (2022)
< 85,000 lbs (< 40 tonnes)	*85,000 – 180,000 lbs (40 - 80 tonnes)*	*> 180,000 lbs (> 80 tonnes)*
845 (+5%) Total Units	**694 Total Units (+8%)**	**667 Total Units (+3%)**
8 BAe 146	**3** A310-300F	**5** MD/DC-10-30/-40
20 DC-9, **22** MD-80	**2** A300B4, **160** A300-600	**105** MD-11F/CF
9 737-200	**38** A330-200F, **8** -200P2F	**239** 777-200F
28 727-100/-200	**15** A330-300P2F	**5** 747-200/300
133 737-300, 140 737-400	**57** 767-200	**47** 747-400SF/BCF
9 737-700, **135** 737-800	**225** 767-300F	**146** B747-400F/ERF
25 A321-200	**186** 767-300BCF/BDSF	**120** B747-8F
312 757-200	**0** MD/DC-10-10	

Source: Cargo Facts Consulting, Cargo Facts, Ch-Aviation. Refers to operating fleet in April 2023.

Our forecast is driven by key assumptions on traffic, productivity, and belly share and estimate of retirements.

3.3% Baseline (2023-2042)

0.6% Productivity Baseline

50% → 50%

Age profile, operators, utilisation and economics.

Small changes in key drivers such traffic growth, shift to bellies and productivity have large impacts.

- 0.5%

- 342 planes

+ 379 planes

+ 0.5%

40:60 iso 50:50

- 419 planes

+408 planes

-0.5%

We have not modelled the impact of individual company decisions.

Particularly in the case of Amazon, the growth of its airline operation has been driven more by logistics strategy than underlying market demand.

Amazon has over 100 dedicated aircraft today – almost 5% of the world's freighter fleet, but a change in strategy could have profound impacts.

The CFC forecast reflects our assessment of future product strategies to determine which specific aircraft types will be offered as jet freighters.

	Narrowbodies	Medium Widebodies	Large Widebodies
Facing near-term extinction	DC-9, 727, Bae 146, 737-200	A300B4, A310	747 Classics, DC/MD-10-30/40
At peak use, or with little future growth potential	MD-80, 737-300/400, 757-200	767-200, A300-600, A330-200F	747-400F/ERF, 747-400SF/BCF, MD-11F/CF, 747-8F
Expanding role going forward	737-700/800, A321/320	767-300F/BDSF/BCF, A330-200/300P2F	777-200F
Planned or Potential Future aircraft ?	737-900	787XF, A330-900F	777-300ERSF, 777-200LRSF, A350 F/P2F, 777-8F

Overcapacity or lack of capacity?

There are excessive freighters on order, but not in all segments.

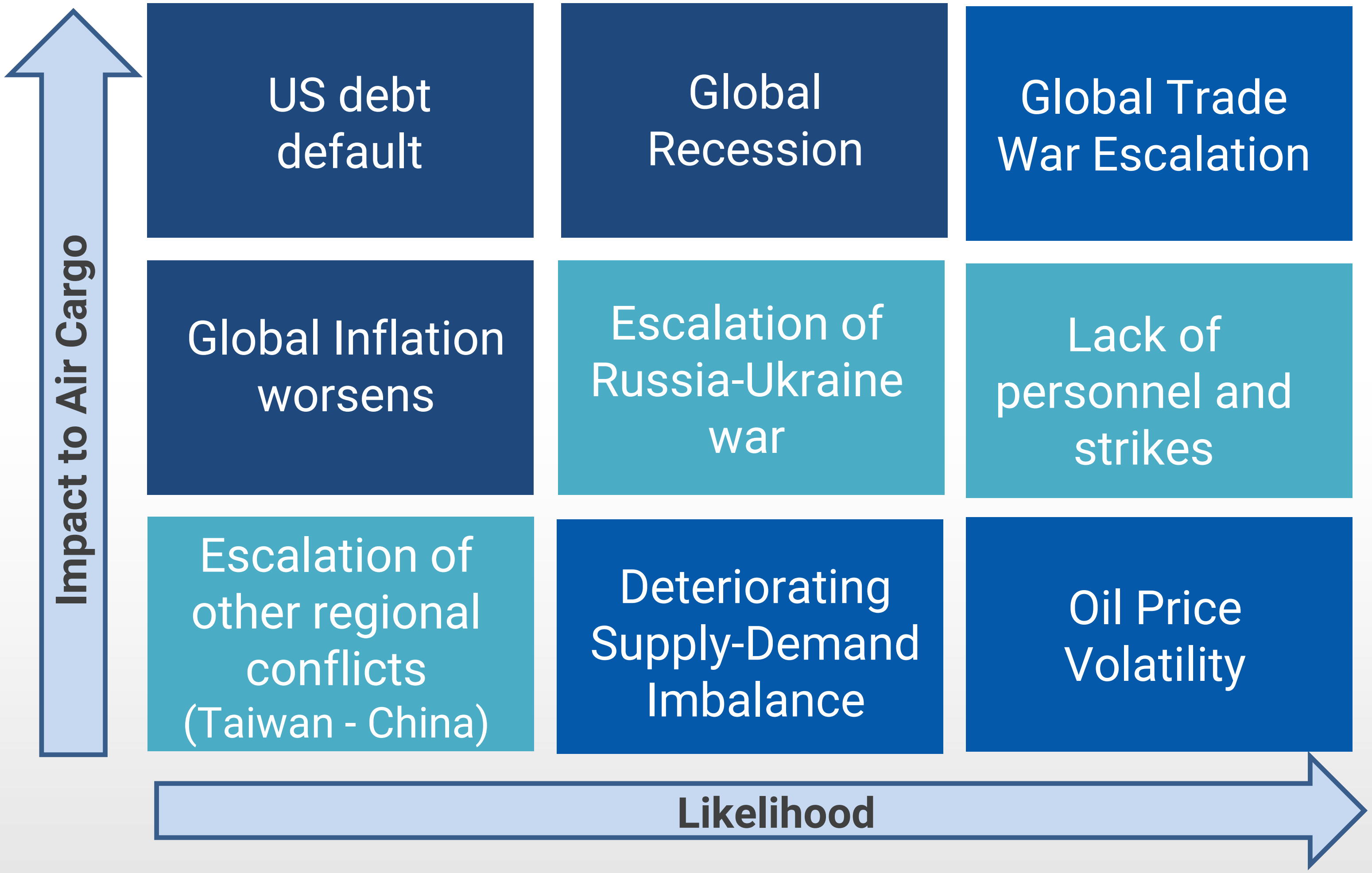
- The general excess, determined by the number of freighters orders (production and conversions), in comparison to the active fleet, stands at approximately 38%, which is twice the usual rate of 20%.
- Although there are concerns regarding the narrowbody segment, CFC sees a shortage of significant widebody capacity entering the market, notwithstanding the existing air cargo weaknesses.
- The commencement of service for newly-built freighters (A350F and B777-8F) is not expected until 2026 & 2027.
- More than 120 widebody freighters that are older than 30 years will be retired within the next 5-10 years.

Production delays from OEMs is preventing the release of feedstock for widebody conversions, impacting the market.

- Strong demand for large widebody aircraft in the passenger market may last for at least three to four years.
- Over 120 widebody freighters are expected to retire within the next five to ten years, and current conversion programs would likely not make up for the difference in lift capacity.
- A gap in nose-loading capacity is now left after the 747-8F production.
- Any delays in the A350F / 777-8F programs could extend the lack of capacity.

12-Month Air Cargo Outlook

Global Risk Outlook: expect a challenging 12-month period for the air cargo industry



Economy & Finance

Global Trade & Markets

Geopolitical & Regional

Source: Cargo Facts Consulting Analysis of 2023 trends and outlook, Bloomberg, BlackRock, Credit Suisse, Colliers, Goldman Sachs, HSBC, IMF, JP Morgan, Reuters, Wells Fargo

Air cargo players must be ready to face challenges ahead in a softening market.

CARGO KPIs DOWN

Global air cargo volumes (-5%), revenues (-20%) and yields (-20%) to decline in 2023.

Soft outlook for global macroeconomy and international trade.

MARKET NORMALIZATION

Normalizing market in sight after three years of unusual activity.

Dynamic and volatile industry requires flexibility.

ELEVATED FREIGHTER DELIVERIES

Another year ahead of high number of converted and production freighter deliveries.

Recovery of belly capacity will put downward pressure on yields.

OPPORTUNITIES?

Specialized cargo, e-commerce (cross-border)

Upside risks: end of Russia-Ukraine war , rebound of consumer confidence, spending, investment, intl. trade.

Latest air freight trends and developments in Latin America include fleet expansion, diversification, new partnerships and investment opportunities.

01 Expansion of Mercado Libre and e-commerce platforms in the region

02 Growth of Asia – LATAM air freight connections and partnerships

03 Express operators investing in LATAM markets (facilities, routes)

04 New operators, fleet renewal, demand for perishables and forwarders investing

In Sum…

Conclusions

- Consumption of digital services remains strong, a trend that will continue over the next years but at a slower pace (10% in 2023). The focus will shift to markets in other parts of Asia, **Latin America** and the Middle East, with higher growth rates (+15%).
- CFC 20-Year forecast estimates a total of 3,900 freighter aircraft by the end of 2042.
- Overcapacity in the narrowbody segment, lack of capacity in the widebody segment.
- 2023 Air Cargo Outlook is optimistic, but with market normalizing and additional capacity, volumes will decline (-5%) and yields will follow a downward trend (-20%).
- Latin America air cargo outlook is promising, with forwarders, operators and logistics companies capitalizing on the growing demand for e-commerce, express services and perishables.

CFC Insights: Powering your business through Data & Analysis

Freighter Forecast

Analysis of recent developments and trends across the feeder, narrowbody, medium and large widebody freighter segments.

View Dashboard

FREIGHTER FORECAST

777-8F: The widebody workhorse of the future

Express Market

Historical overview and five-year growth forecast of key international and domestic air express markets.

View Dashboard

EXPRESS

FedEx SkyCourier deliveries ahead of schedule

E-commerce Market

Examination of domestic and cross-border e-commerce, and its effect on key segments.

View Dashboard

E-COMMERCE

Amazon network grows amid layoffs

Market FutureWatch

Analysis of the latest air cargo trends and insights, including market forecasts, sustainable practices, and updates from carriers, lessors and freight forwarders.

View Dashboard

MARKET FUTUREWATCH

WestJet Cargo launches after 10-month regulatory delay

Drones

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Drone delivery revolution: Overcoming challenges and transforming last-mile logistics

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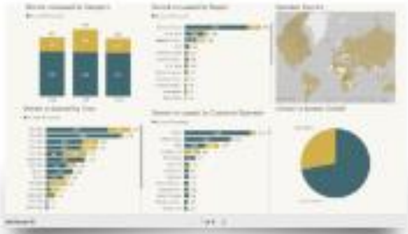
Lessor Freighter Market Shares



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