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Current State and Future Prospects of the US Aviation Industry/COVID-19 and the Japanese, US and European Aviation Industries

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Part 1

Current state and future prospects of the US aviation industry

1. Current state of the US aviation industry (1)

"What was it like before COVID-19?"

⇒ Situation up to 2019

2. COVID-19 pandemic in the United States and its response

3. Current state of the US aviation industry (2)

"What happened after COVID-19?"

⇒ Situation during the first three quarters of 2020
(January to September)

4. Future outlook

* The graphs appearing in this document were created by JITTI USA based on data from Form 41 of the US Department of Transportation (including preliminary figures) unless otherwise noted.

1. Current state of the US aviation industry (1)

"What was it like before COVID-19?"

⇒ Situation up to 2019

1. Current state of the US aviation industry (1)

Network carriers

American, Delta and United

LCCs

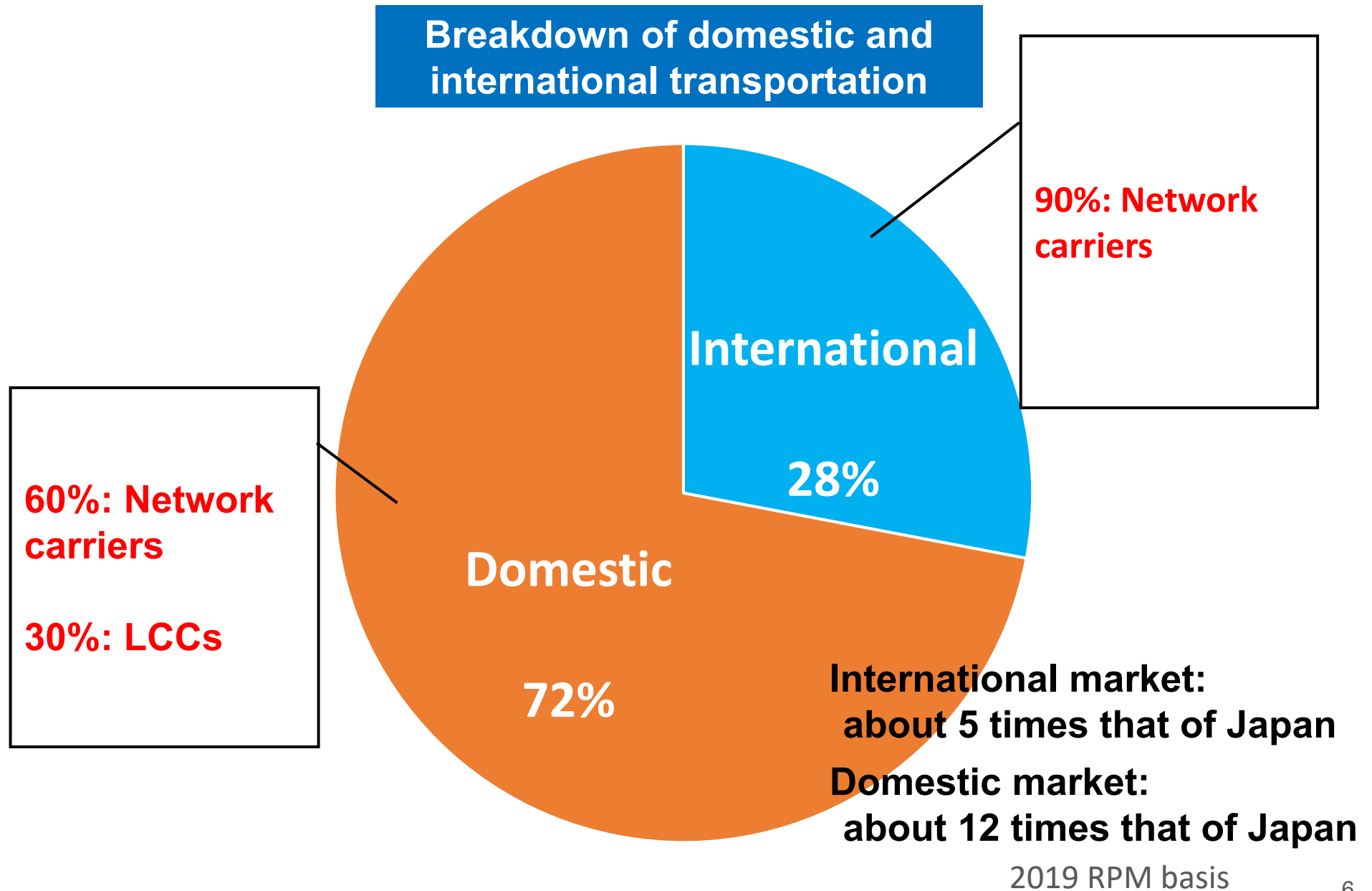
Southwest, JetBlue, Frontier, Spirit and Allegiant

Regional carriers

Businesses that operate small-market routes that connect to network carrier hub airports using small aircraft (many of these flights are outsourced by network carriers)

*As of 2020. Historical data includes data from companies that existed at the time.

1. Current state of the US aviation industry (1)



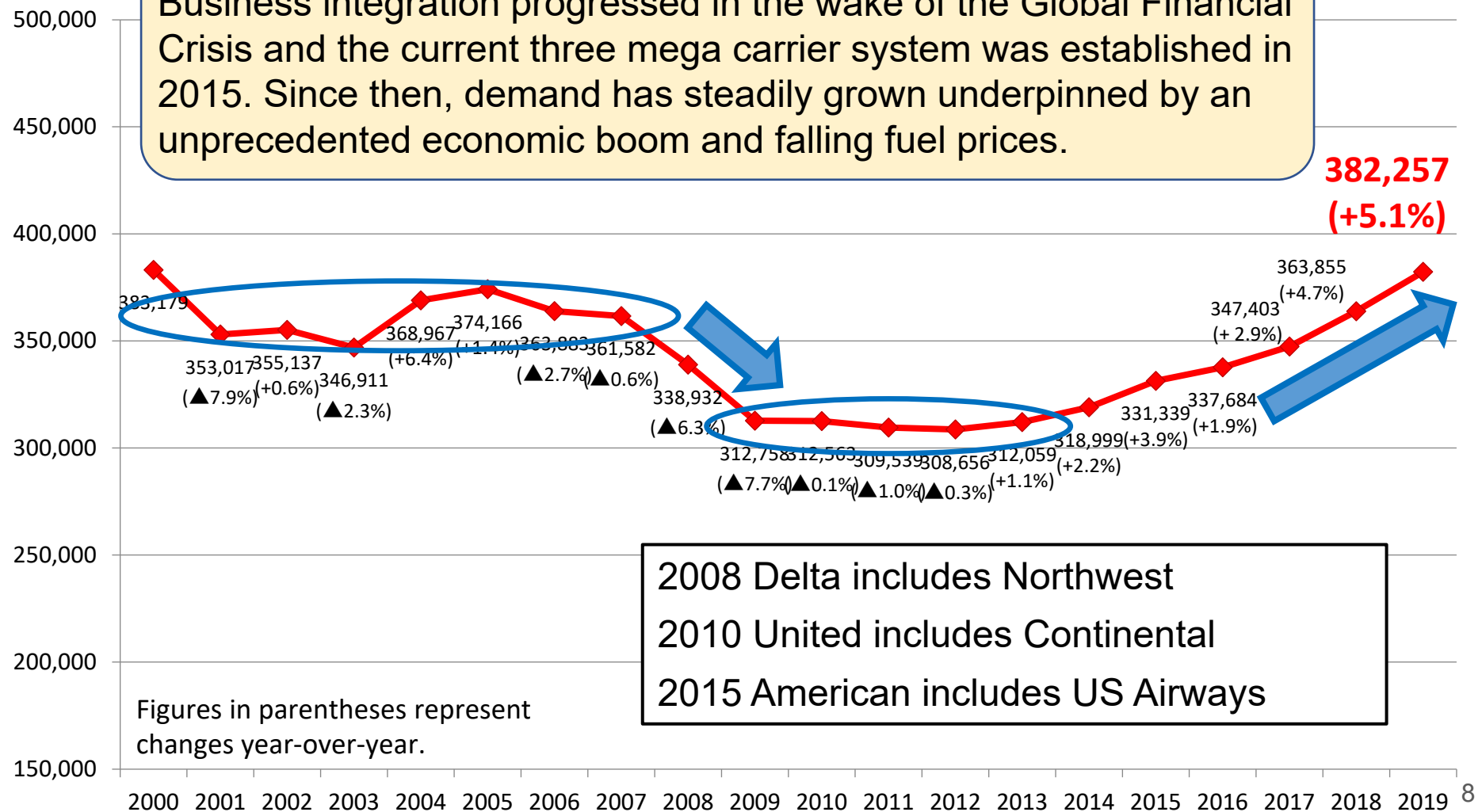
Domestic market

1. Current state of the US aviation industry (1)

Domestic market: network carriers

Revenue Passenger Mile (RPM; million passenger miles)

Business integration progressed in the wake of the Global Financial Crisis and the current three mega carrier system was established in 2015. Since then, demand has steadily grown underpinned by an unprecedented economic boom and falling fuel prices.

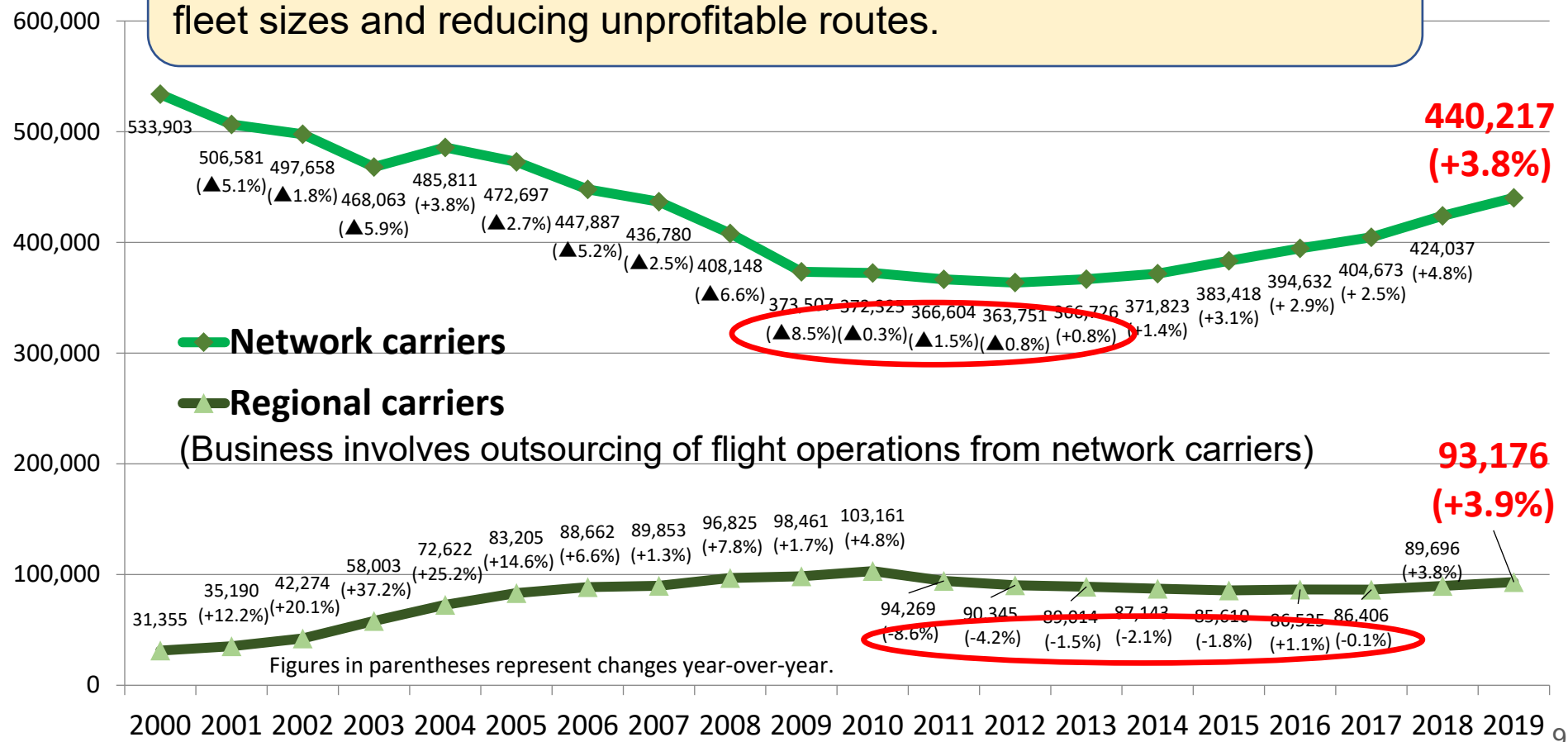


1. Current state of the US aviation industry (1)

Domestic market: network carriers

Available Seat Miles (ASM; million seat miles)

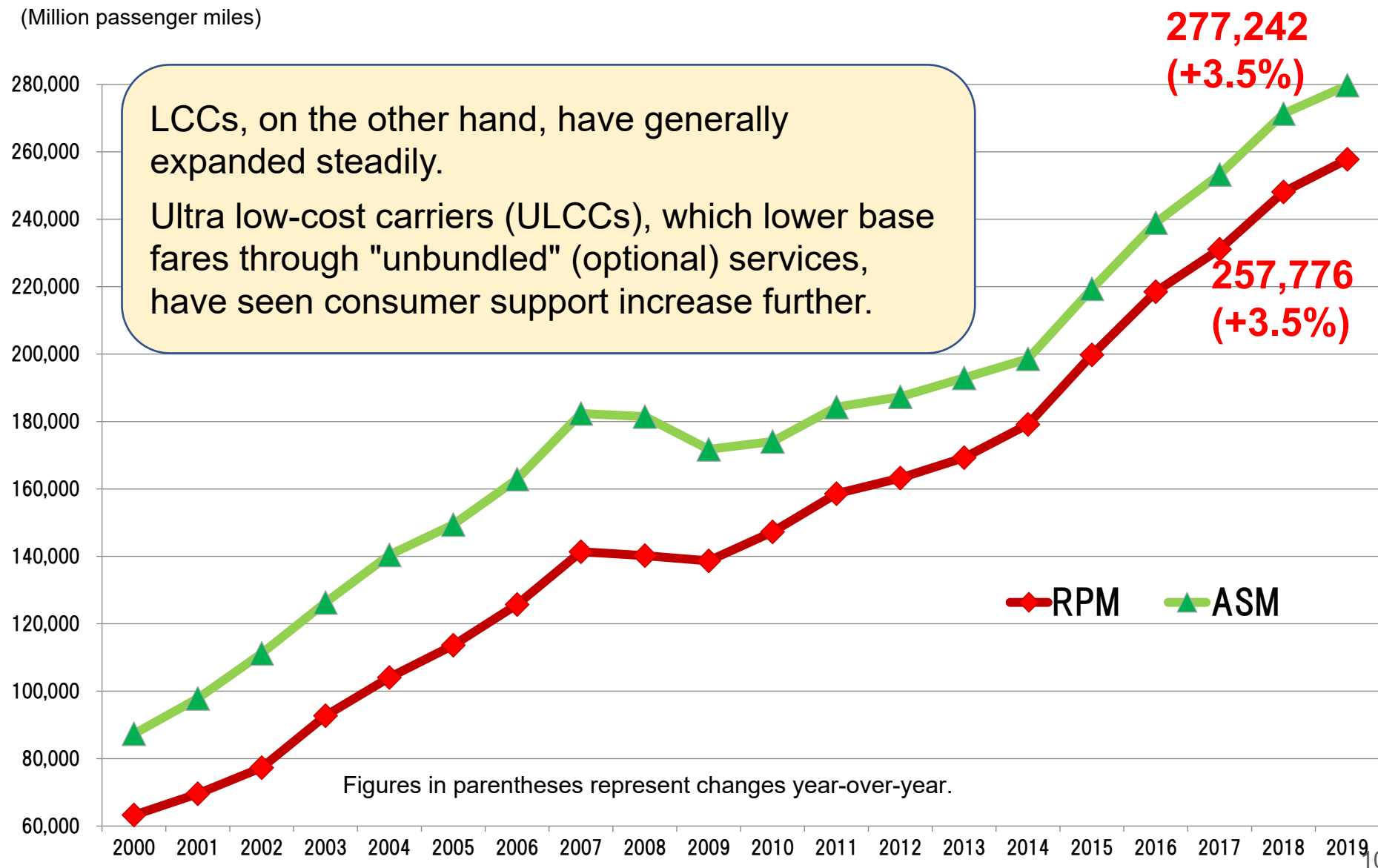
During this time, airlines, including their partner regional airlines, have adjusted the supply volume and carefully expanded by optimizing fleet sizes and reducing unprofitable routes.



1. Current state of the US aviation industry (1)

Domestic market: LCCs

(Million passenger miles)

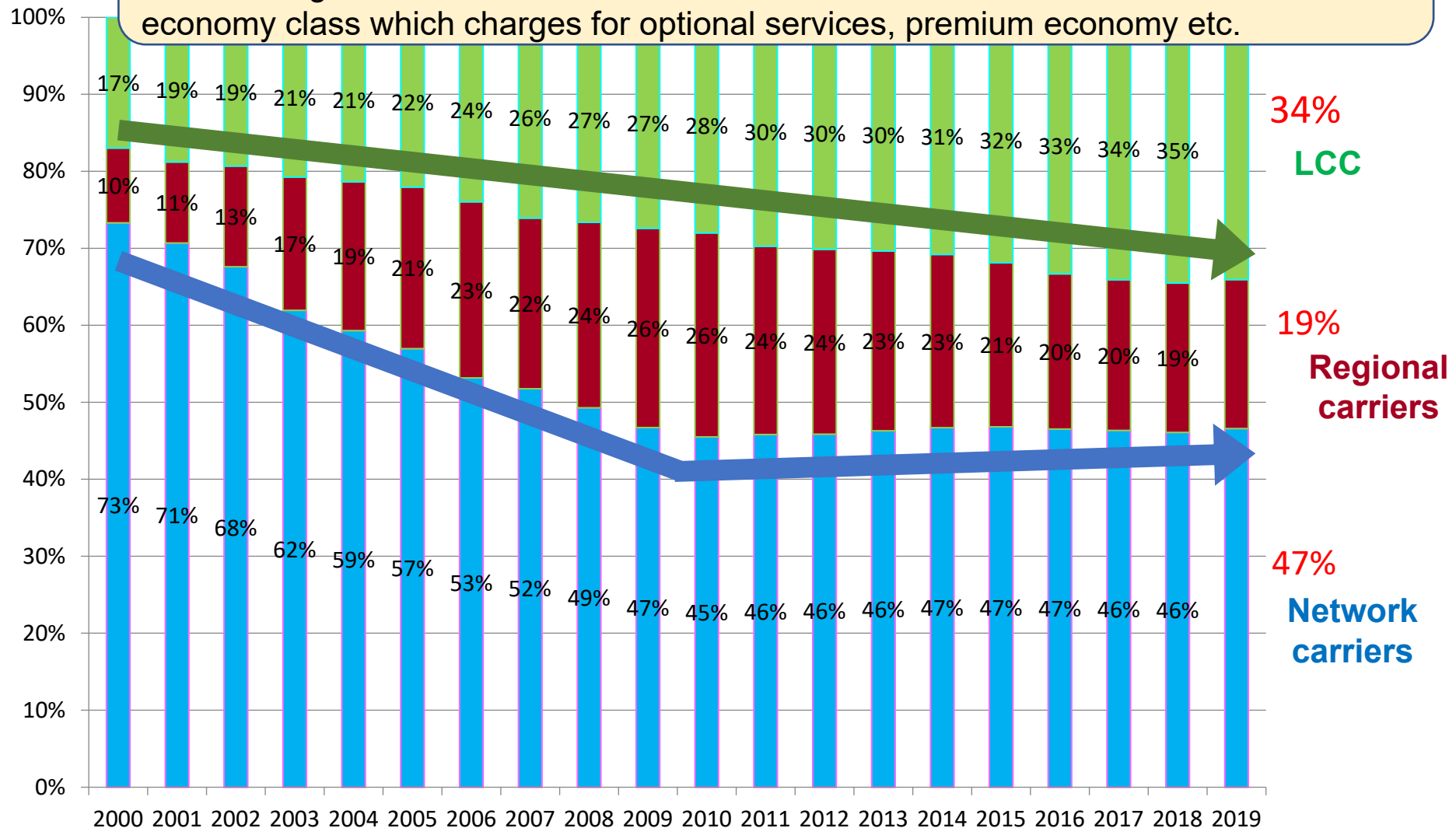


1 . Current state of the US aviation industry (1)

Share of domestic market by business category

Passenger basis

As a result, LCCs have steadily expanded their market share, accounting for one-third of the domestic market now. Network carriers, however, have been competing with LCCs through fare diversification measures, such as the introduction of basic economy class which charges for optional services, premium economy etc.



1 . Current state of the US aviation industry (1)

■ Examples of charging for optional services

Source: Corporate websites of each airline
(as of November 2019)

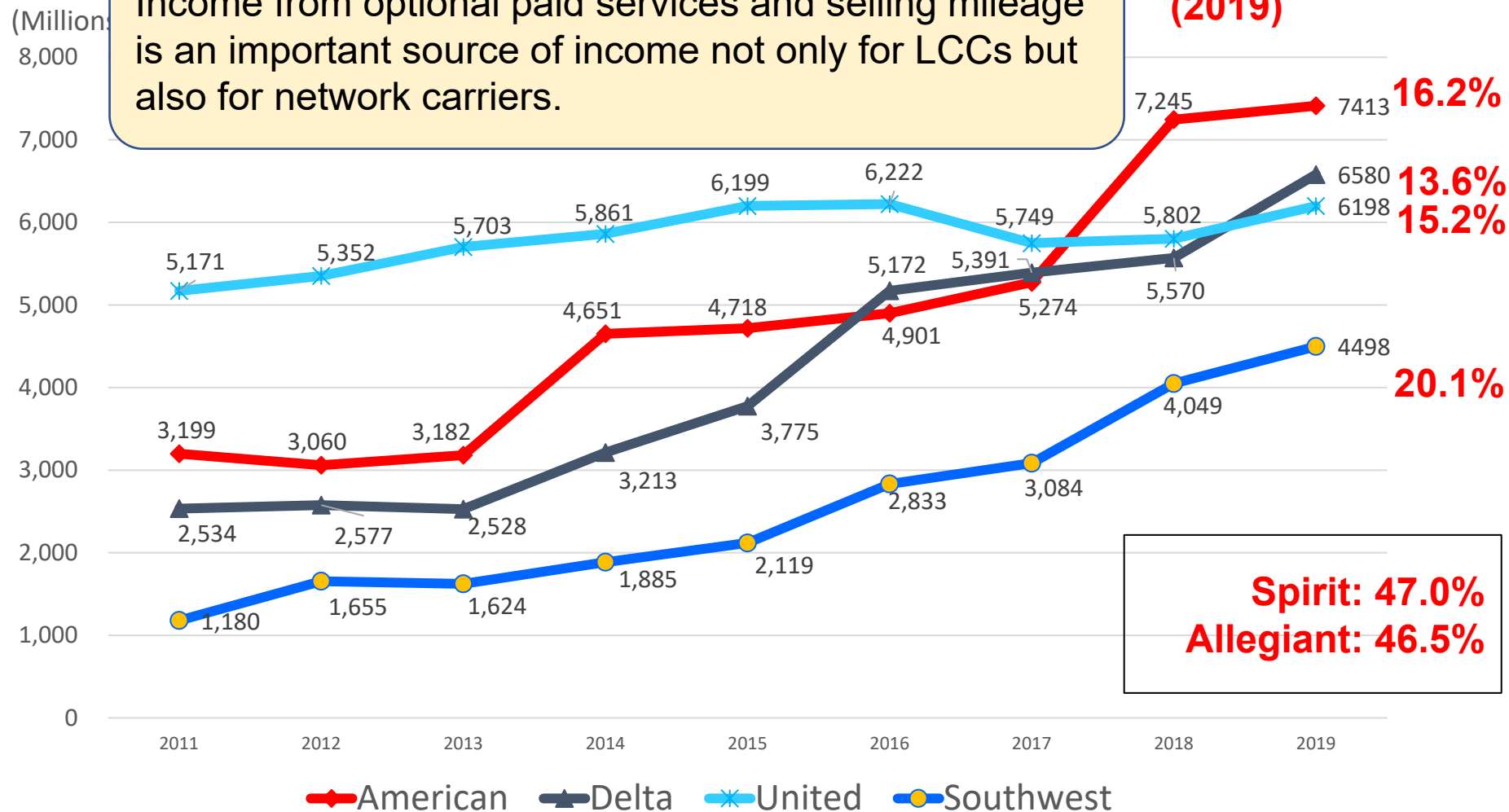
		American	United	Delta	Southwest
Domestic flight checked baggage fee	1st	\$30	\$30	\$30	Free
	2nd	\$40	\$40	\$40	Free
	3rd	\$150	\$150	\$150	\$75
	4th or more	\$200	\$200	\$200	\$75
	Oversized	\$200/bag	\$200/bag	\$200/bag	\$75/bag
	Overweight	\$100/bag (up to 32kg) \$200/bag (up to 45kg)	\$100/bag (up to 32kg) \$200/bag (up to 45kg)	\$100/bag (up to 31.75kg) \$200/bag (up to 45.36kg)	\$75/bag
Food and drink	Beverages (alcohol)	\$7~15.99	\$8~12	\$7~24.99	\$6~7
	Meals and snacks	\$2~10	\$4~10	\$3.49~10.99	—
In-flight Wi-Fi		Domestic flights: \$10 and up (\$49.55/month) International flights: \$12/2h, \$17/4h, \$19/flight	\$1-12.5/5h, \$3.99-29.95/flight \$7/h, \$19/day, \$49.95/month if provided by Gogo, Inc.	\$16/day, \$49.95/month, \$599.99/year Free text communication with iMessage, etc.	\$8/day

1 . Current state of the US aviation industry (1)

Changes in optional service income

Income from optional paid services and selling mileage is an important source of income not only for LCCs but also for network carriers.

Percentage of operating revenue (2019)

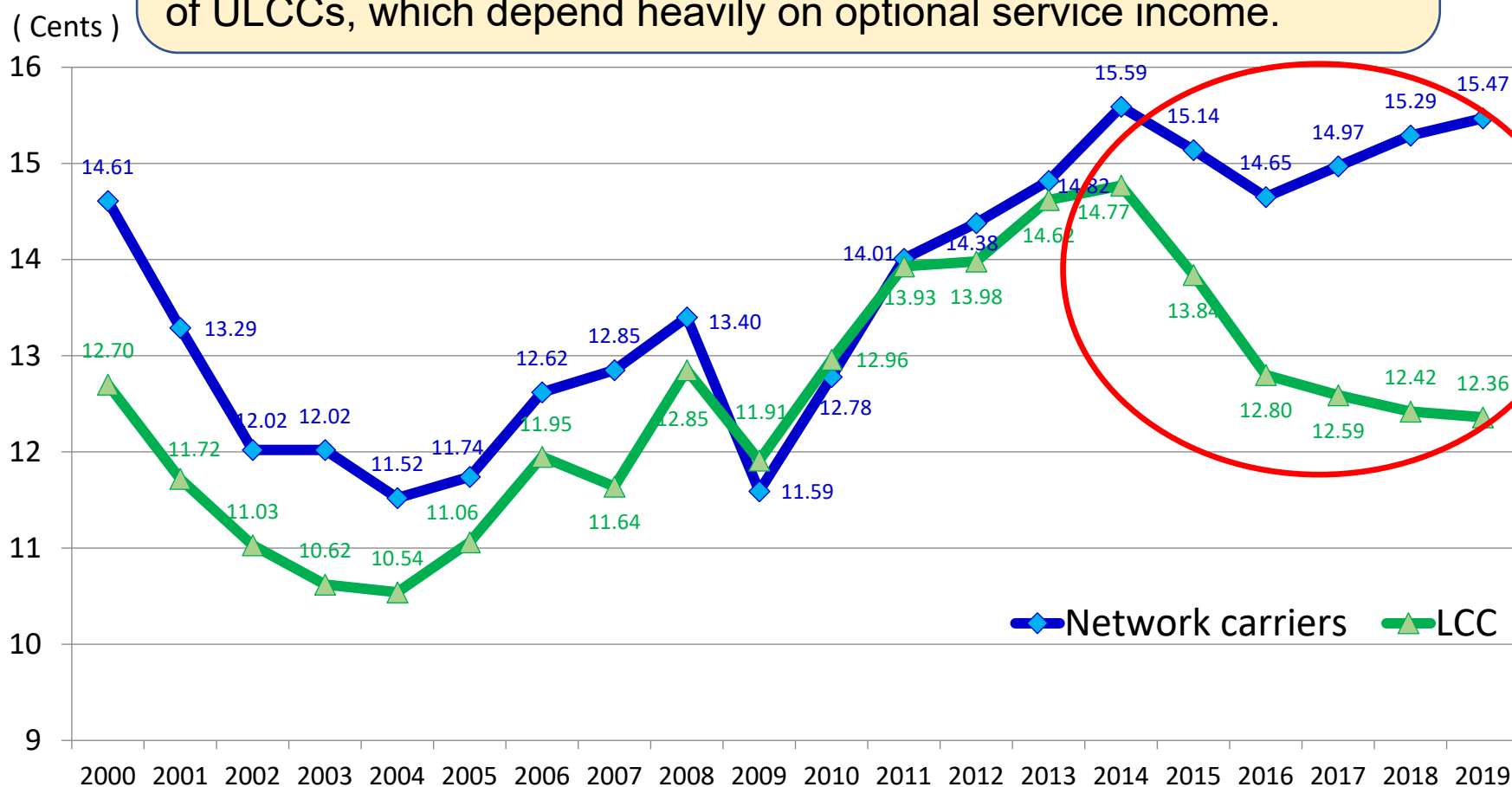


Spirit: 47.0%
Allegiant: 46.5%

1 . Current state of the US aviation industry (1)

Changes in yield

Despite promoting fare diversification, network carriers are still maintaining and improving yields (average fare per unit).
On the other hand, LCC yields are declining due to the emergence of ULCCs, which depend heavily on optional service income.

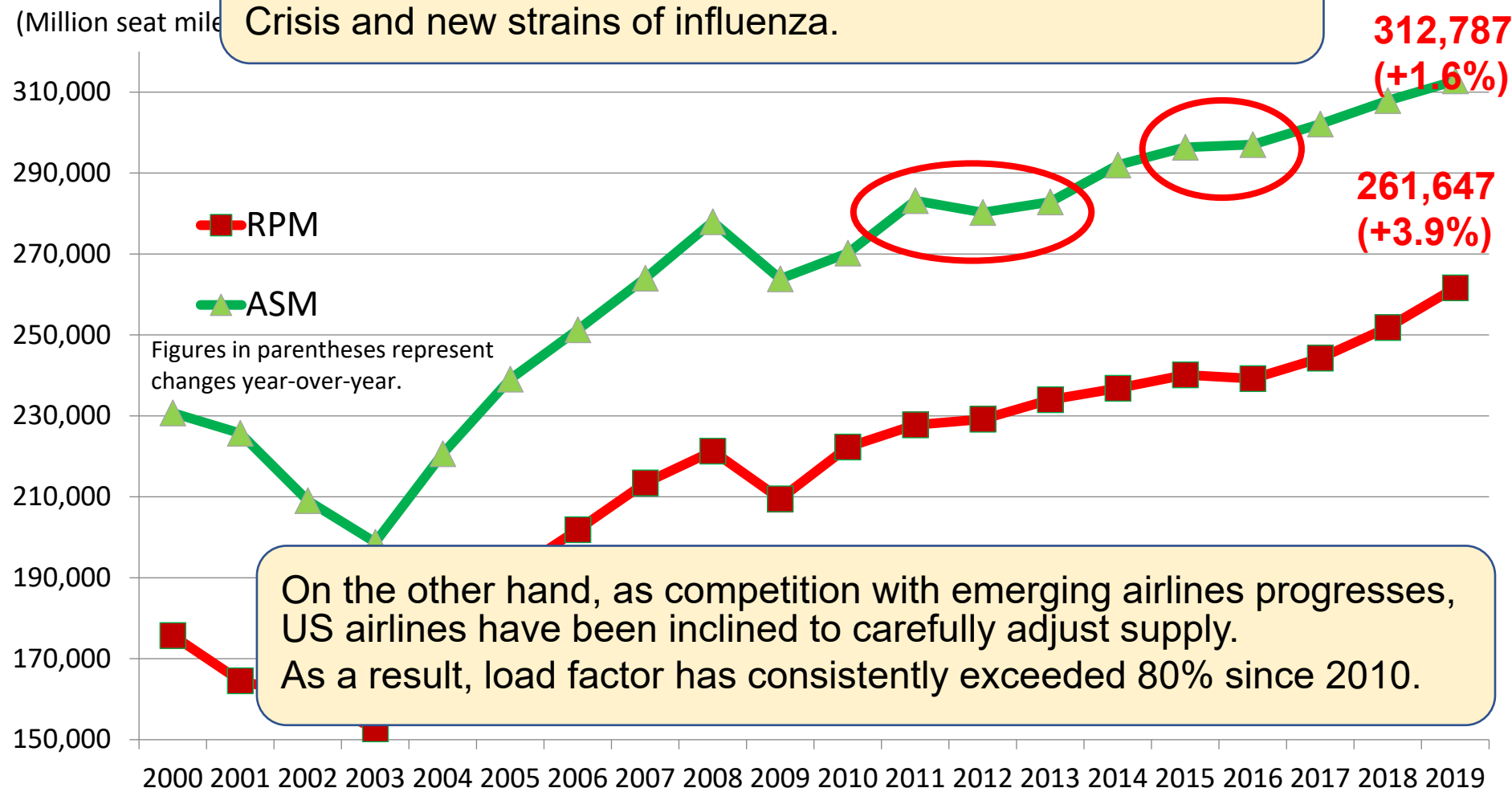


International market

1. Current state of the US aviation industry (1)

International market: network carriers

The international market has been growing thanks to the improvement in business conditions after the Global Financial Crisis and new strains of influenza.

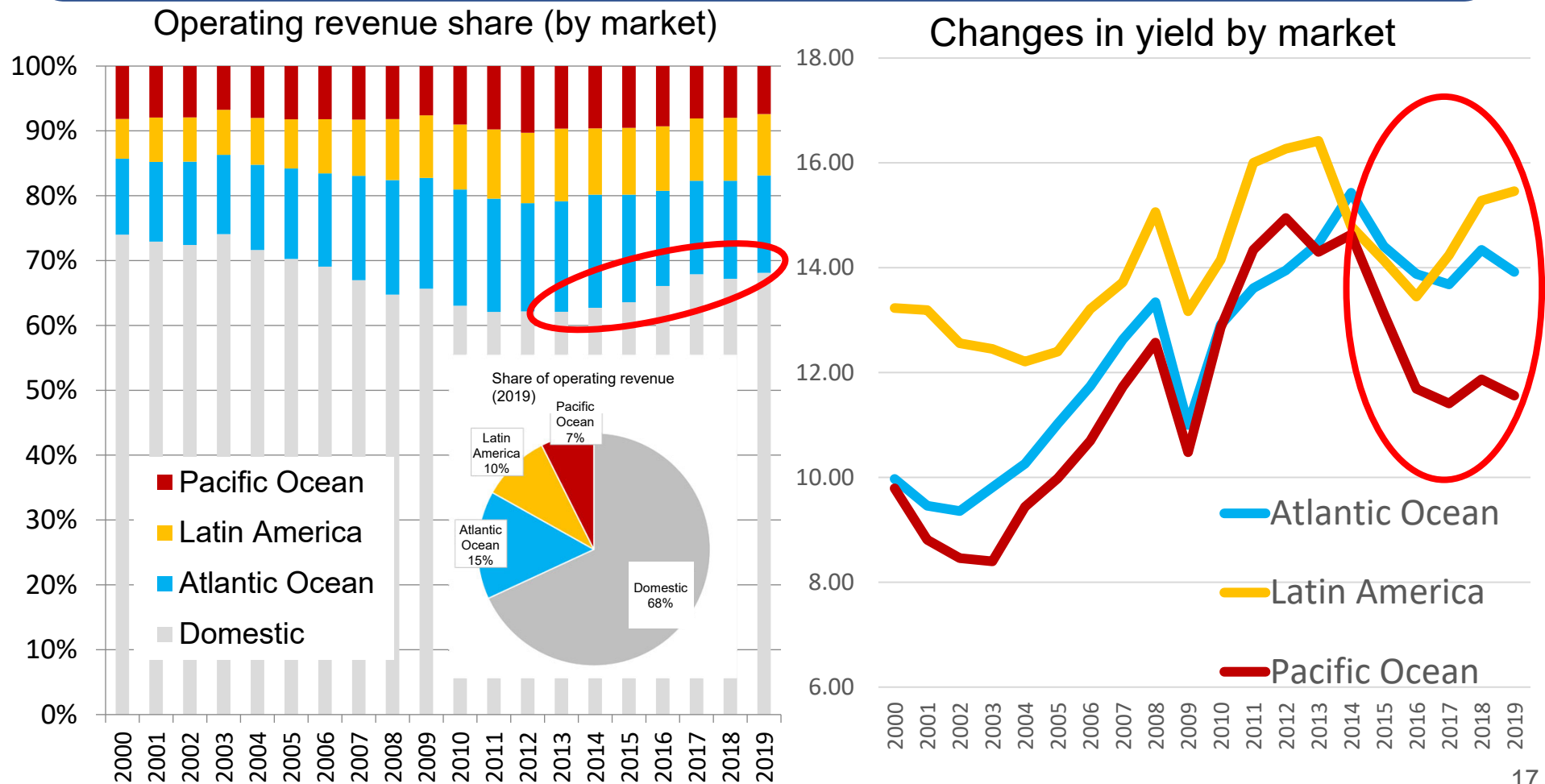


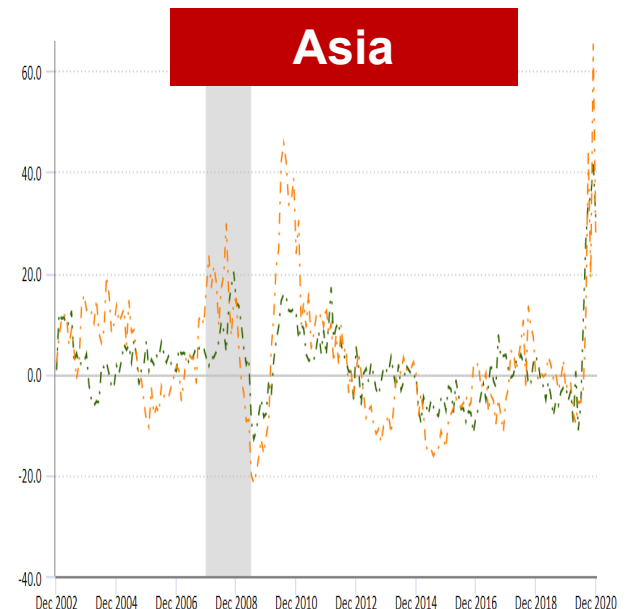
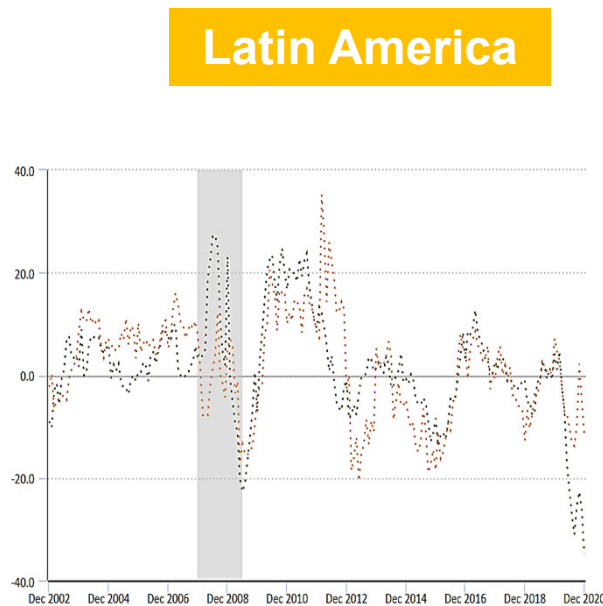
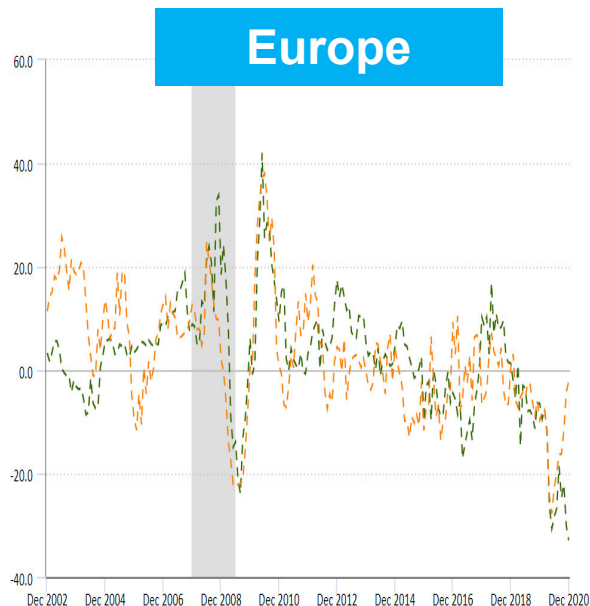
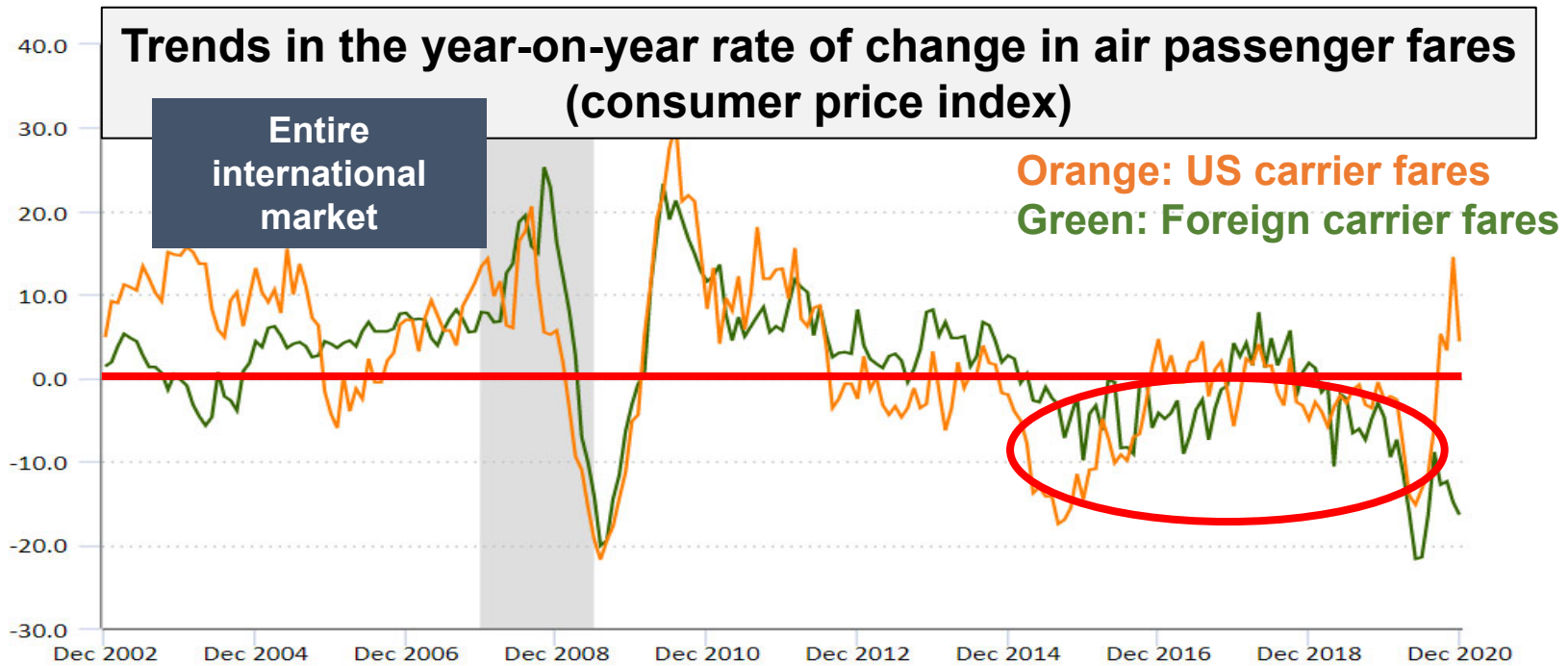
1. Current state of the US aviation industry (1)

International market: network carriers

In recent years, the share of the international market in the operating revenue of network carriers has declined.

Yields are falling in the Atlantic and Pacific markets. This holds particularly true for the Pacific market.





2 . COVID-19 pandemic in the United States and its response

2. COVID-19 pandemic in the United States and its response

2020

January 20: First confirmed infection in Washington State.

February 2: Travel restrictions on travelers from China

March 6 : First COVID-19 related act (Coronavirus Preparedness and Response Supplemental Appropriations Act)
vaccine development, support for healthcare institutions
(\$8.3 billion)

March 11 : WHO declares pandemic

March 13 : US declares national state of emergency

March 18 : Second COVID-19 related act (Families First Coronavirus Response Act)
paid sick leave, tax credit for leave salary (\$192.9 billion)

Late March-Early April: Lockdowns in each state

March 27 : **Third COVID-19 related act (CARES Act)**
individual benefits, SME support, salary subsidies,
support for transportation companies, etc. (\$2,283
billion)

Support measures for airlines in the CARES Act

(1) Payroll Support Program (PSP)

Funds were granted to airlines and their affiliates to continue paying employees' salaries, benefits, etc.

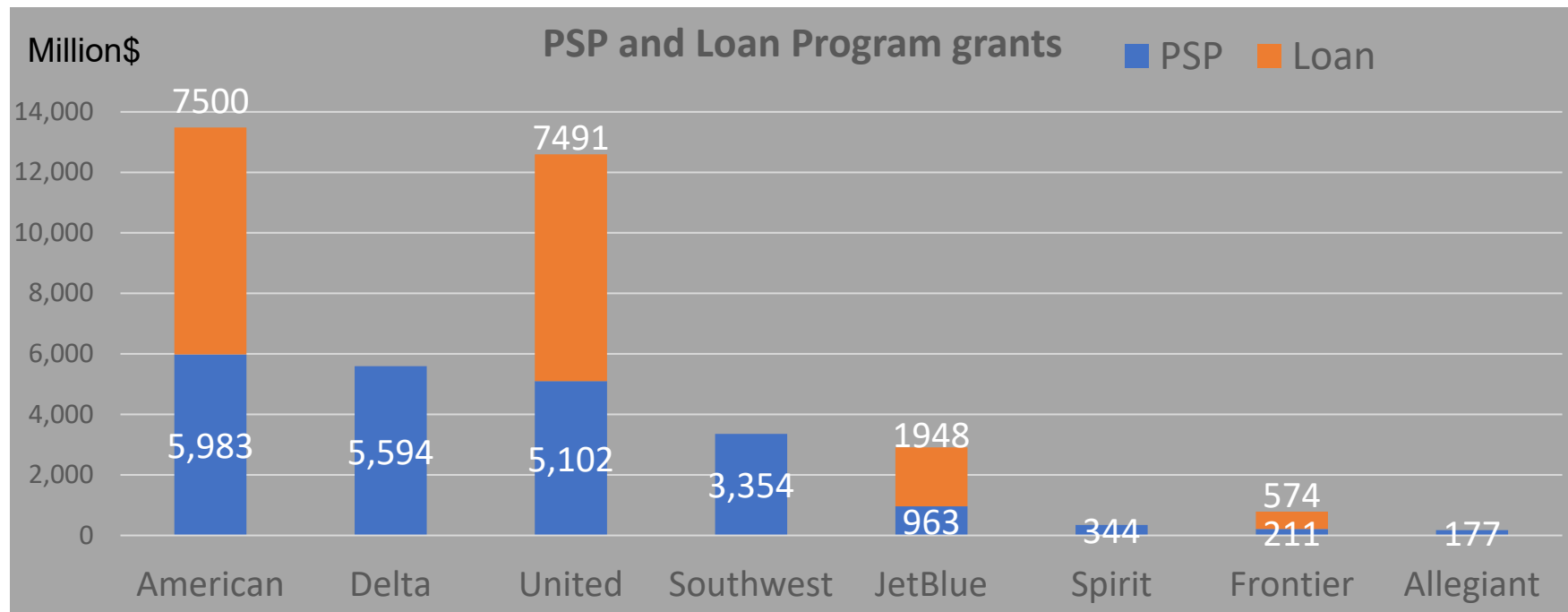
- Passenger airlines granted 25 billion dollars, cargo airlines 4 billion dollars and related businesses 3 billion dollars
- For payment from April 1 to September 30, 2020
- Granted the same amount of funds as the compensation paid to employees during the period from April 1 to September 30, 2019
- Prohibited involuntary dismissal of employees, reduction of wages, etc.
- Prohibited share buybacks and dividends
- Airlines provided financial products such as warrants to the U.S. Department of the Treasury
- Maintained regular operations within a reasonable and possible range, etc.

2. COVID-19 pandemic in the United States and its response

(2) Loss compensation loan program

Provides passenger airlines, etc. with loans equivalent to the losses incurred as a result of COVID-19.

- Passenger airlines, etc. 25 billion dollars, cargo airlines 4 billion dollars and companies essential for maintaining national security (*Boeing) 17 billion dollars
- Same conditions as PSP imposed.
- Maximum loan period is 5 years.



Source: U.S. Department of the Treasury, PSP as of February 24, 2021, and Loan Program as of January 21, 2021

2. COVID-19 pandemic in the United States and its response

⇒ Afterwards, people called for an extension approaching September 30, the end of PSP, but Republicans and Democrats could not reach an agreement on the details of COVID-19 policies and the deadline lapsed.

⇒ A total of 37,000 employees across all airlines were furloughed, etc. at the beginning of October. This number increased thereafter.

November 3: Presidential election

November 7: Biden victory declared

December 21: Fourth COVID-19 related act passed by Congress
(signed by President on 27th)

**Fourth COVID-19 related act (Emergency Coronavirus Relief Act)
personal benefits, SME measures, unemployment benefits, support for
transportation companies, etc. (\$900 billion)**

- Continued the PSP provided by the CARES Act
- For salary payments from October 1, 2020 to March 31, 2021
- Airlines receiving support are required to notify employees who have been dismissed, etc. after October 1st and take steps to make them choose whether or not to return.

⇒ Afterwards, some airlines notified their employees possible furlough after April 1, 2021.

3 . Current state of the US aviation industry (2)

"What happened after COVID-19?"

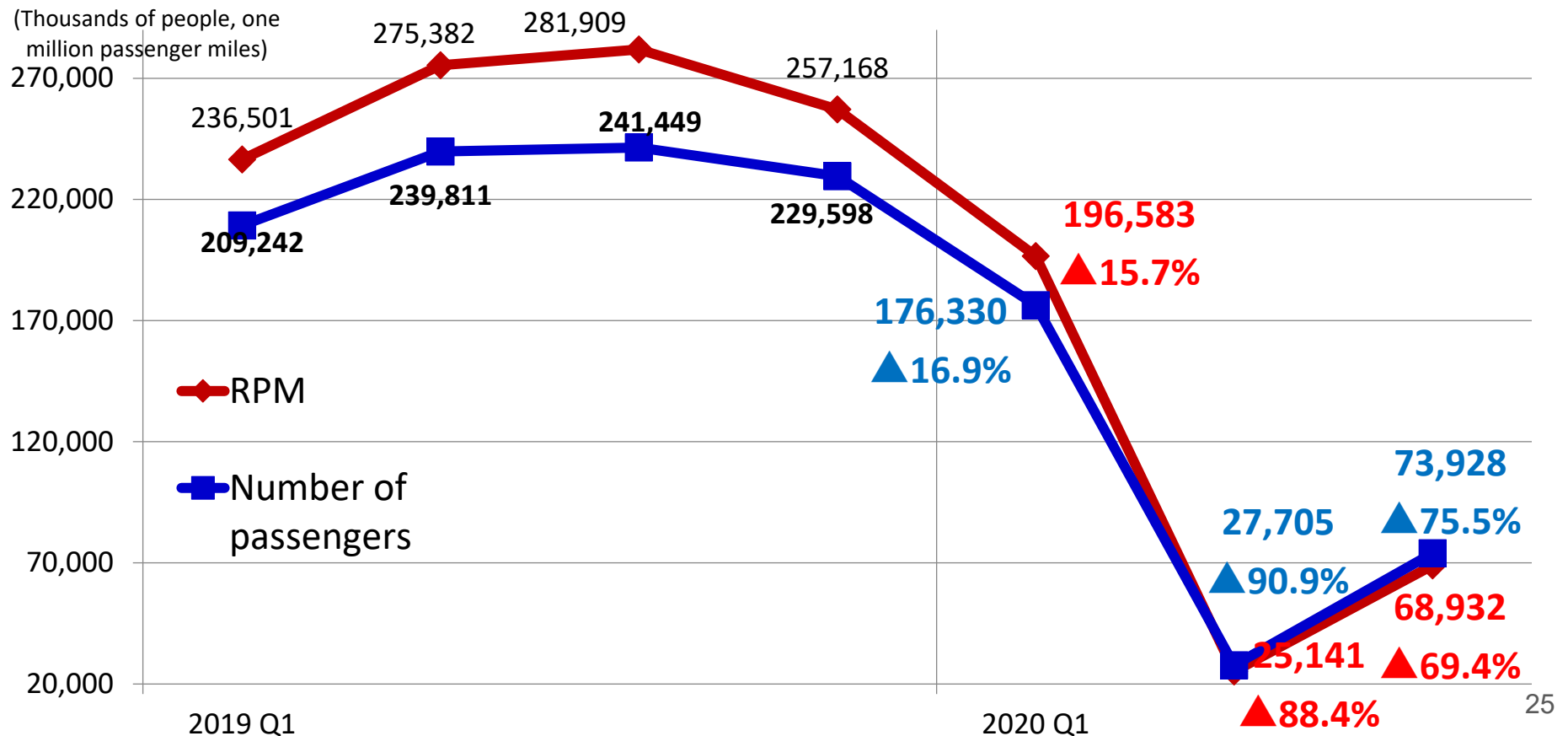
⇒ Situation during the first three quarters of 2020 (January to September)

3. Current state of the US aviation industry (2)

Entire aviation market

Looking at the overall trend in the first to third quarters of 2020, COVID-19 infections began to spread in the US in earnest and demand fell the most in the second quarter (April to June) when travel restrictions were imposed.

In the third quarter (July-September), the so-called first wave eased and the Trump administration's stance of emphasizing economic re-opening led to a recovery centered on demand for domestic tourism and returning home to visit family.

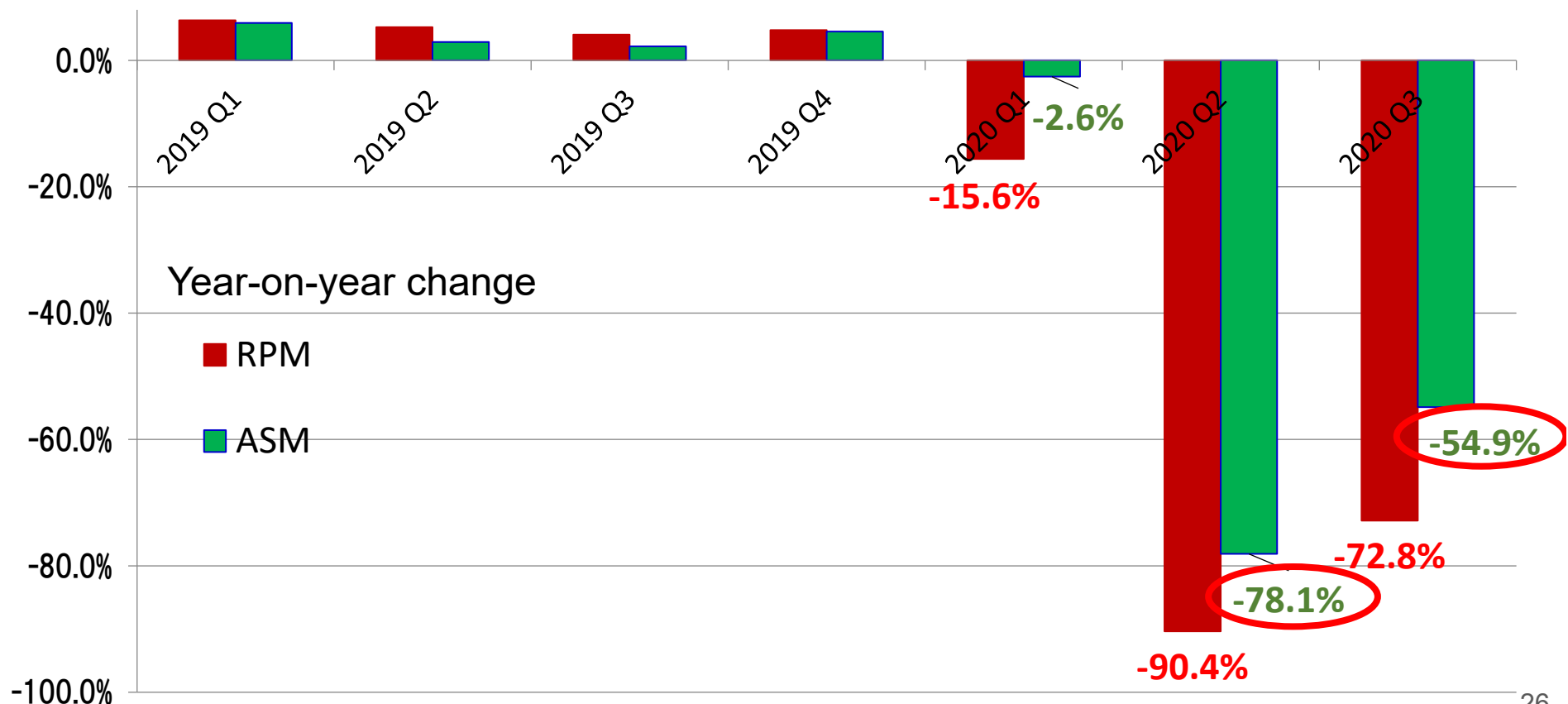


3. Current state of the US aviation industry (2)

Domestic market: network carriers

Throughout the first three quarters network carriers reduced supply significantly compared to LCCs as seen on the next page.

Network carriers seem to take the approach of "don't overdo it." They reduced supply by making their self-owned fleets halt to operate or retire.



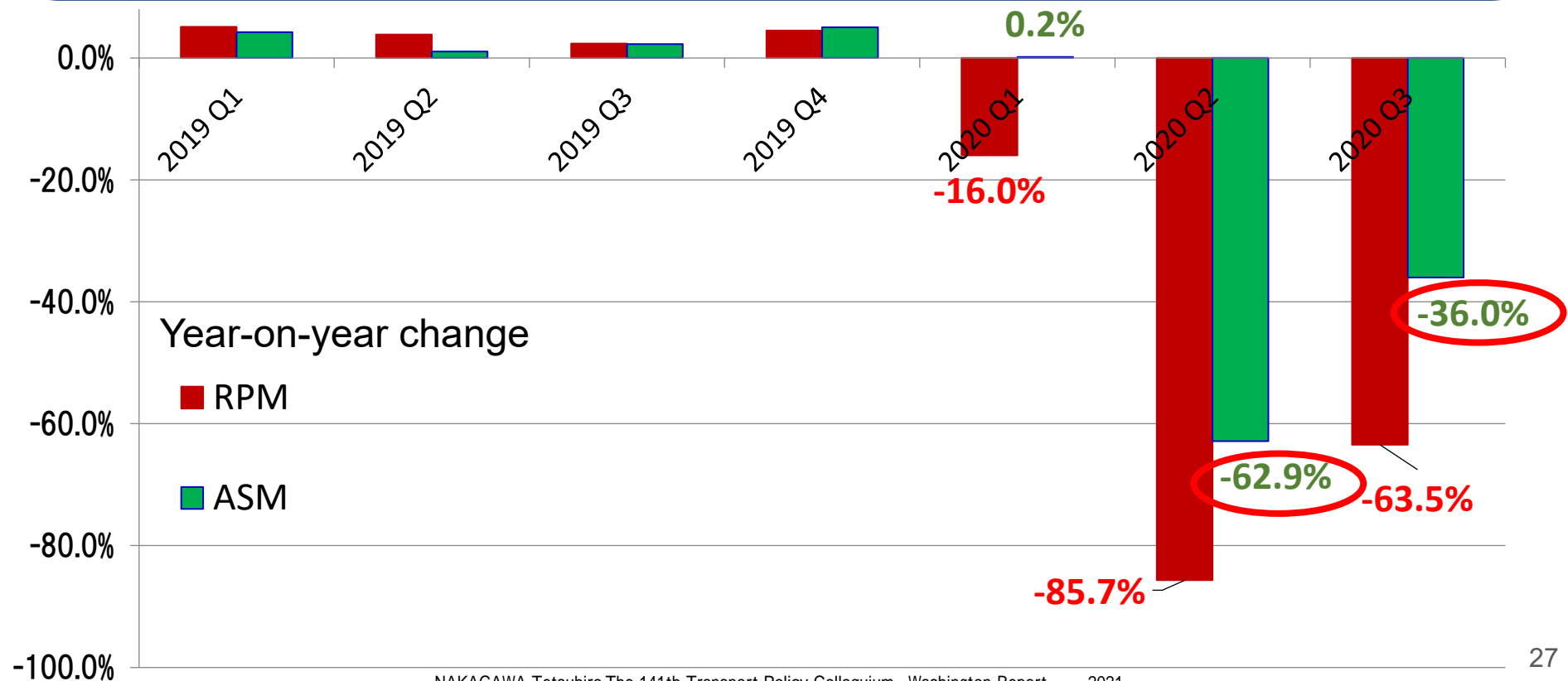
3. Current state of the US aviation industry (2)

Domestic market: LCCs

LCCs did not reduce supply as much as network carriers did.

Due to the fact that most of their operating fleets are leased, LCCs have little leeway for downsizing capacity and reducing routes, making it difficult to shrink supply, but LCCs use the business model of maximizing fleet utilization rate to ensure profitability. LCCs seem to take the approach of "fly no matter what."

Although there was a recovery in demand in the third quarter, the gap between supply and demand was large. (Operating losses worsened from the second quarter.)

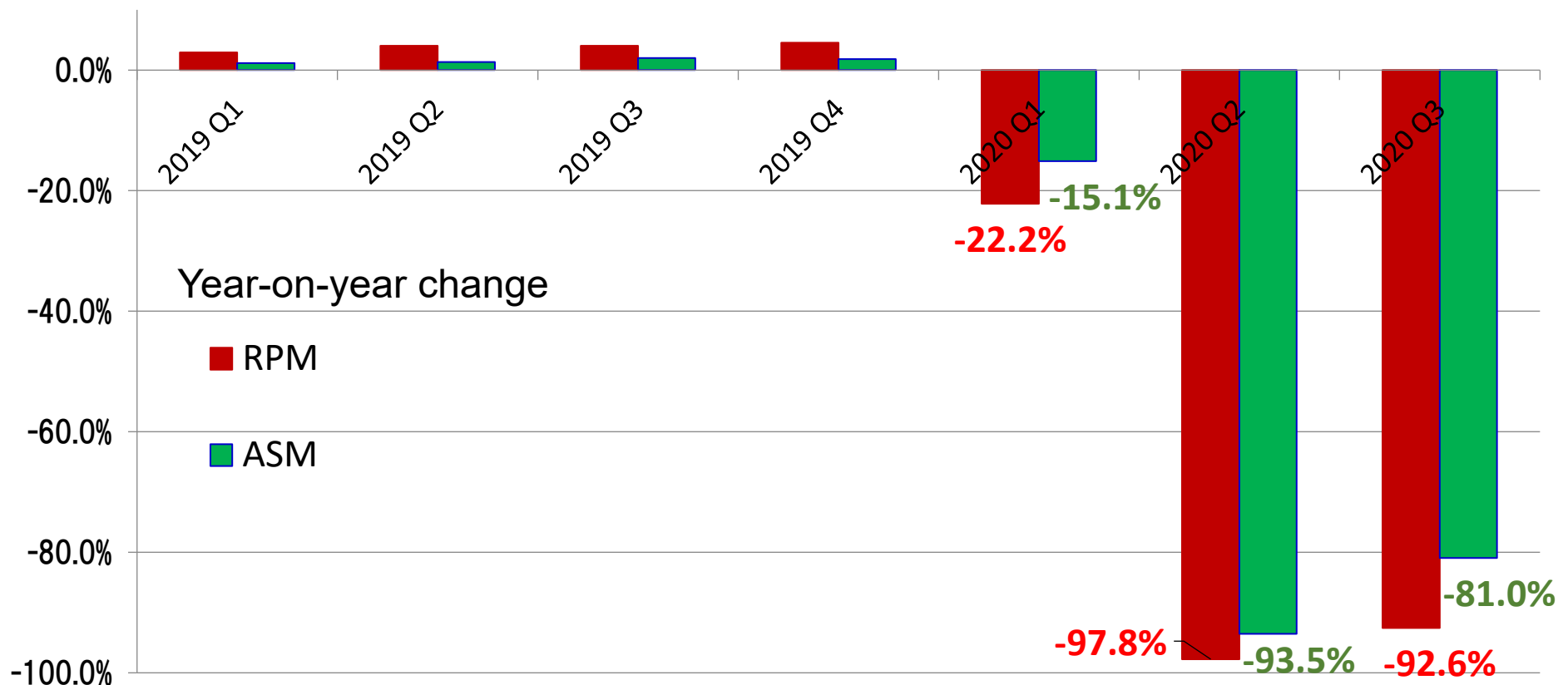


3. Current state of the US aviation industry (2)

International market: network carriers

The international market has been devastated due to ongoing immigration restrictions in each country.

As quarantine and isolation after entry hinders international movement, airlines are working to establish a pre-quarantine system (PCR inspection at pre-departure airports, pre-distribution of inspection kits to customers, quarantine information management app, etc.).



4. Future outlook

4. Future outlook

(1) Strong recovery of domestic market

- Underpinned by the strong economy, rampant domestic travel demand, which has been suppressed during pandemic, will certainly pick up as vaccines become more widespread in the future.
- Factors such as travel restrictions imposed by each state (leisure markets are difficult to close and easy to open), and the presence of LCCs that "fly no matter what" will also provide a tailwind.
- However, industry insiders seem very cautious about the timing.

(2) Effect by decreasing business travel demand esp. to network carriers

- Business demand will decrease even after the pandemic is over.
- As a result, network carriers will:
 - In addition to retaining existing business travelers and high-priced tourism demand,
 - Expanded measures from tourism demand will likely be requested (enhancement of optional services, expansion of premium economy, etc.)
- However, industry insiders seem relatively calm (optimistic).

4. Future outlook

(3) Shrinking supply and advantage of US carriers in the international market

- Many carriers, including in Europe and Asia, have been forced to rebuild their businesses under government control. For the time being, supply in the international market is expected to be curtailed.
- This could provide a further tailwind for leading US carriers in terms of improving yields and curbing labor costs.

(4) Efforts toward re-opening of international market (establishment of pre-quarantine system)

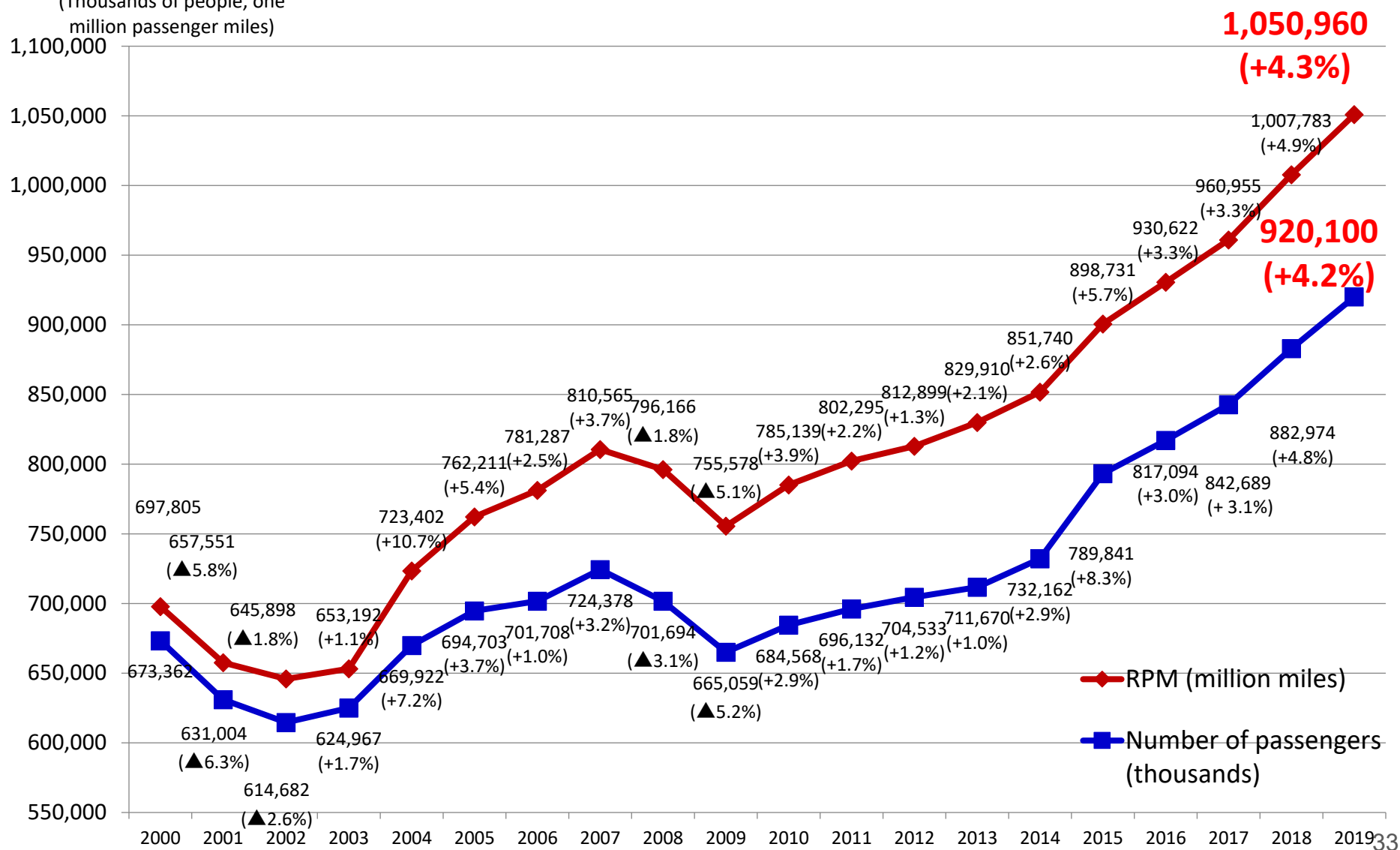
- Since quarantine and isolation after entry hinders international movement, efforts are underway to establish a pre-quarantine system, which is expected to develop into "vaccine passports" in the future. (American, United, Delta, IATA, EU, etc.)
- For the time being, a "ununified state" is expected to continue, with each airline, partnership, and region having their own mechanisms.
- Must pay attention to whether "vaccine passports" can significantly change the way of immigration and even domestic travel in the future.

(Reference)

(Reference) Supply and demand trends

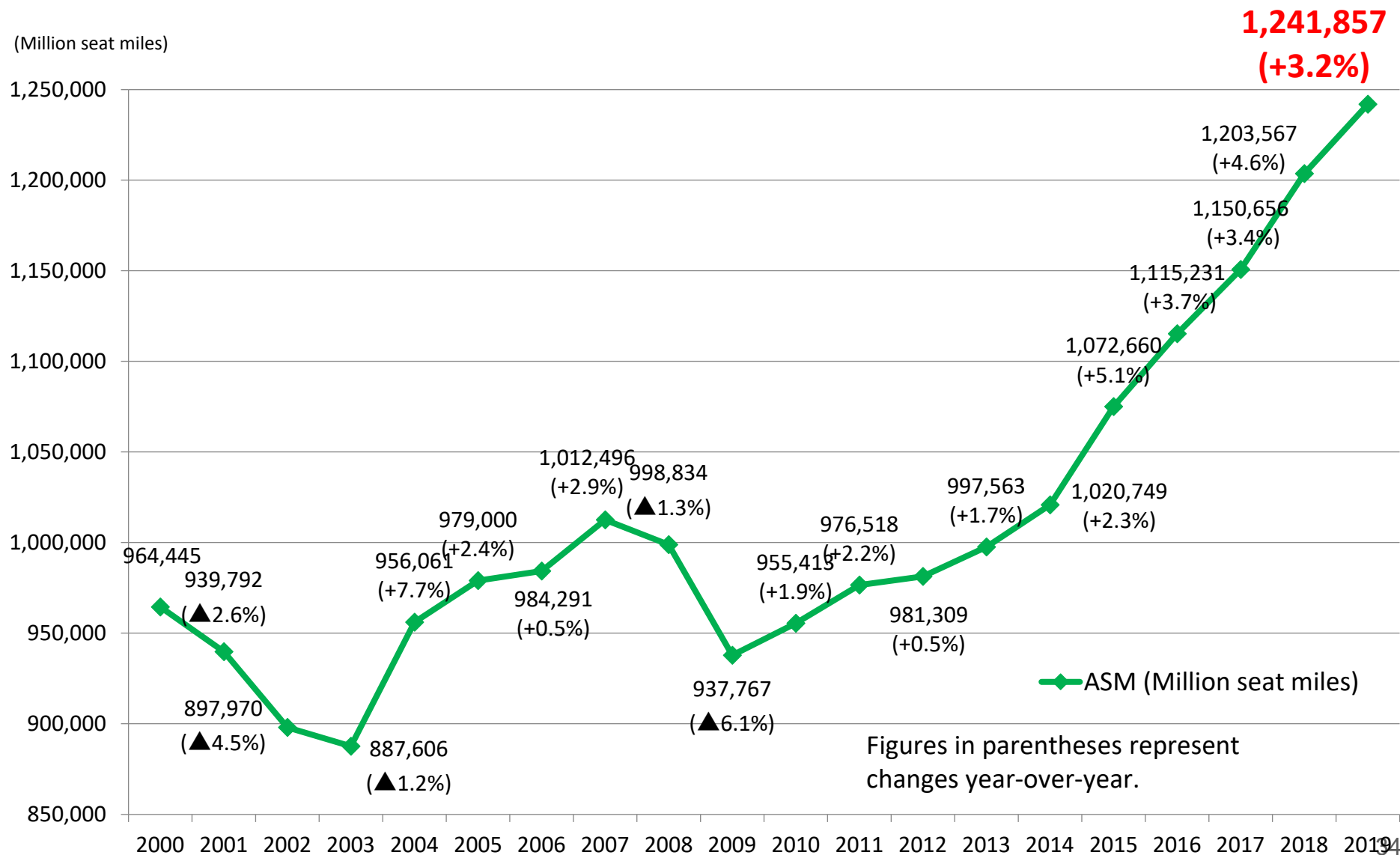
Entire aviation industry

(Thousands of people, one
million passenger miles)



(Reference) Supply and demand trends

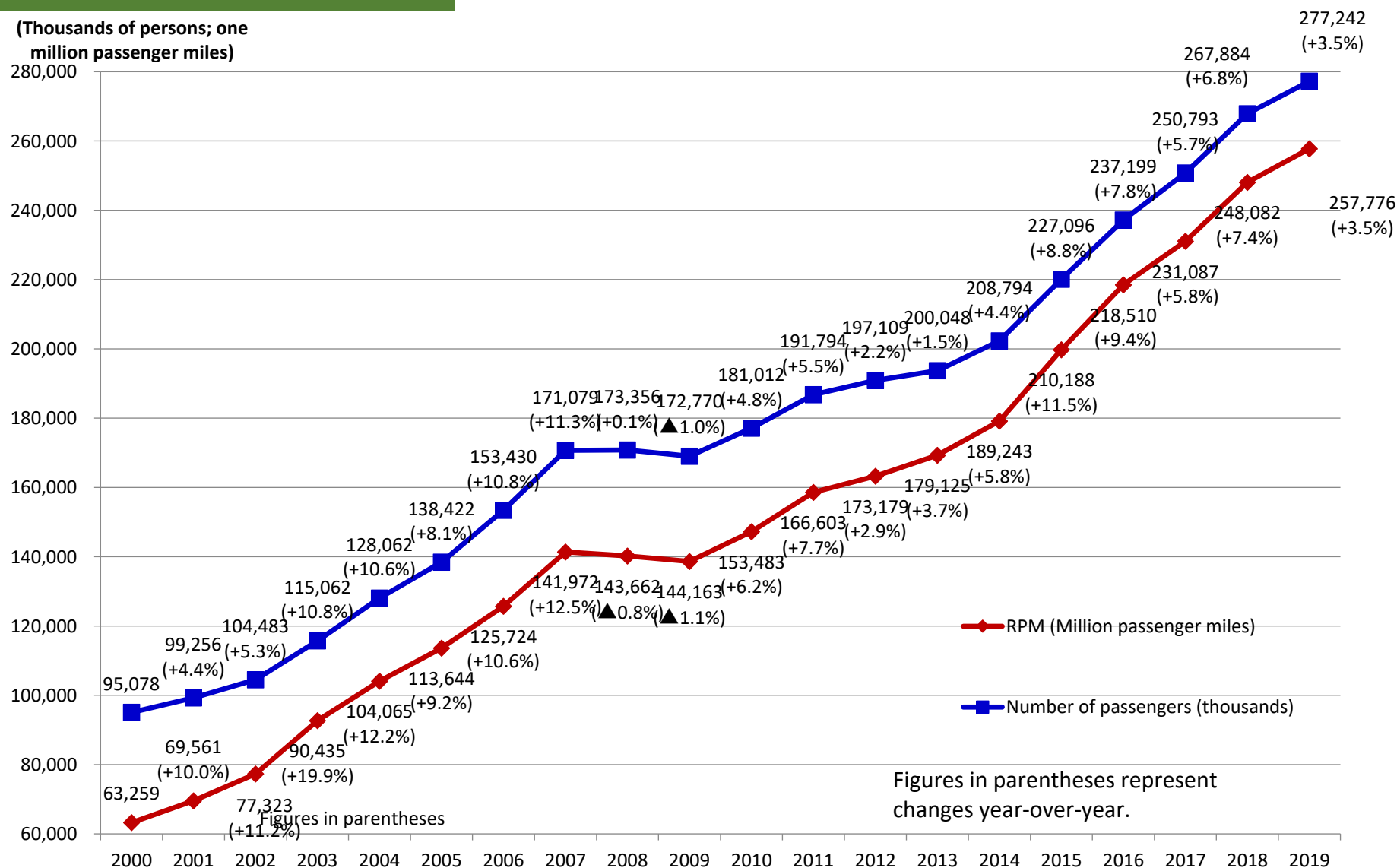
Entire aviation industry



(Reference) Supply and demand trends

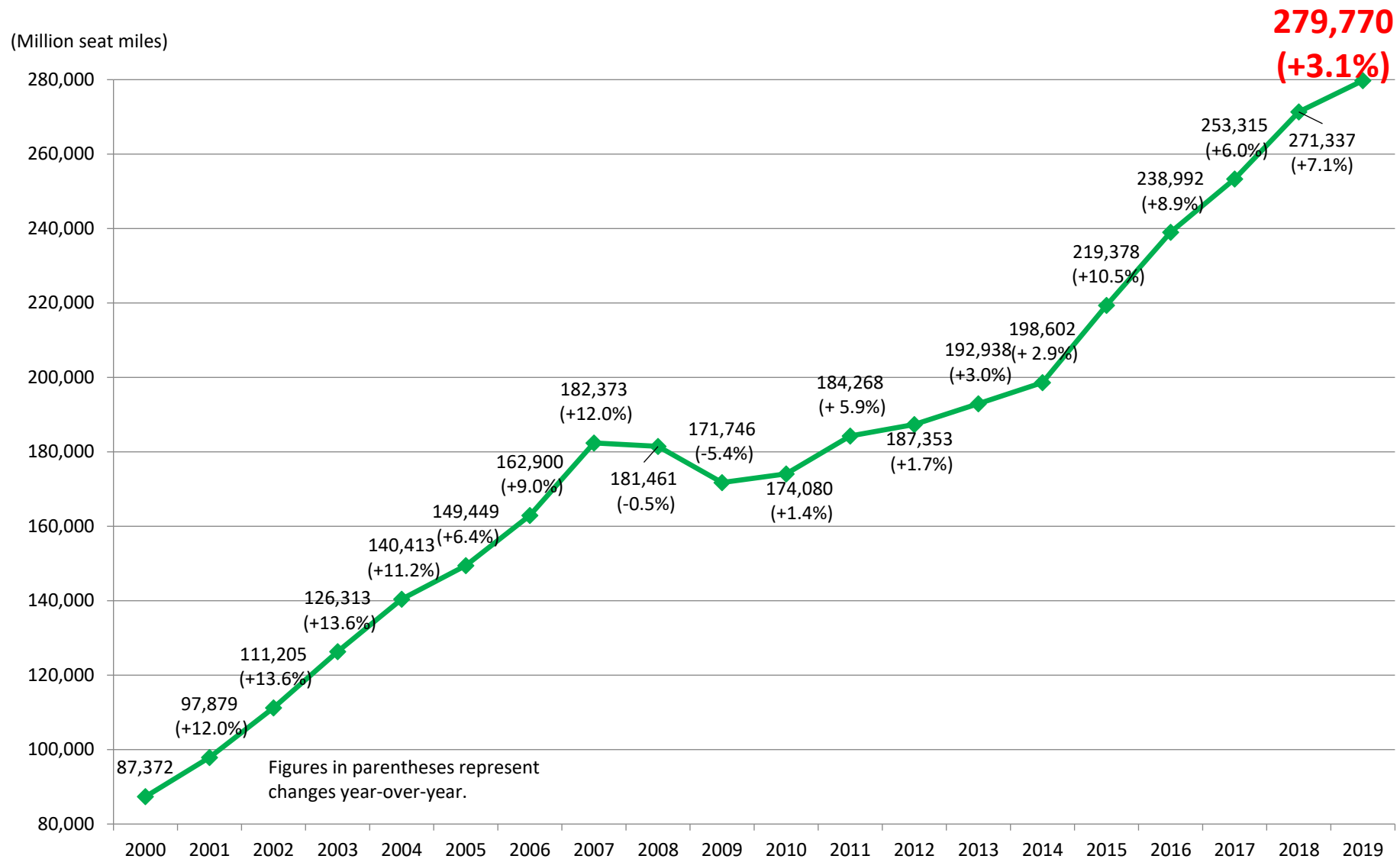
LCC

(Thousands of persons; one million passenger miles)



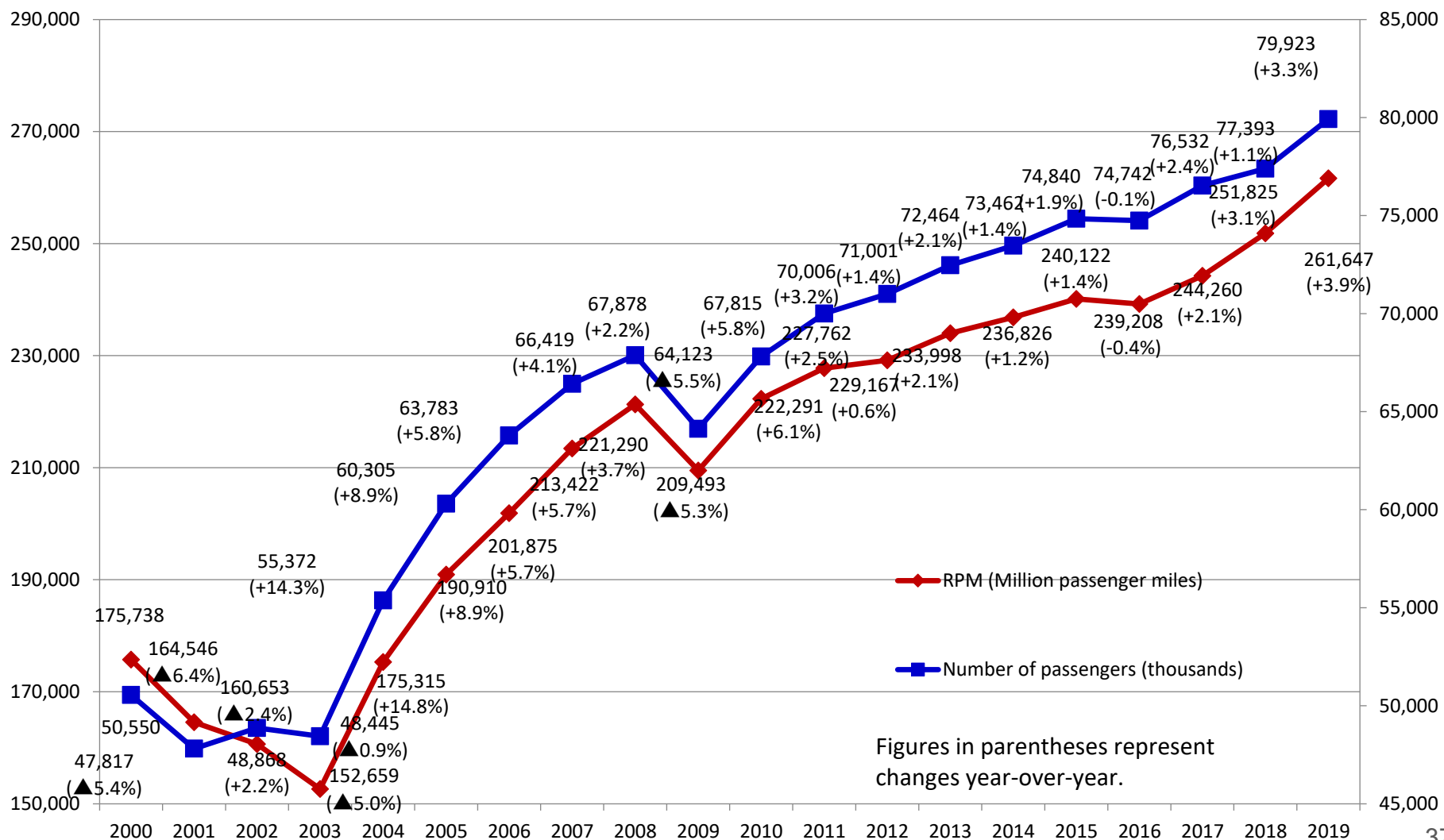
(Reference) Supply and demand trends

LCCs



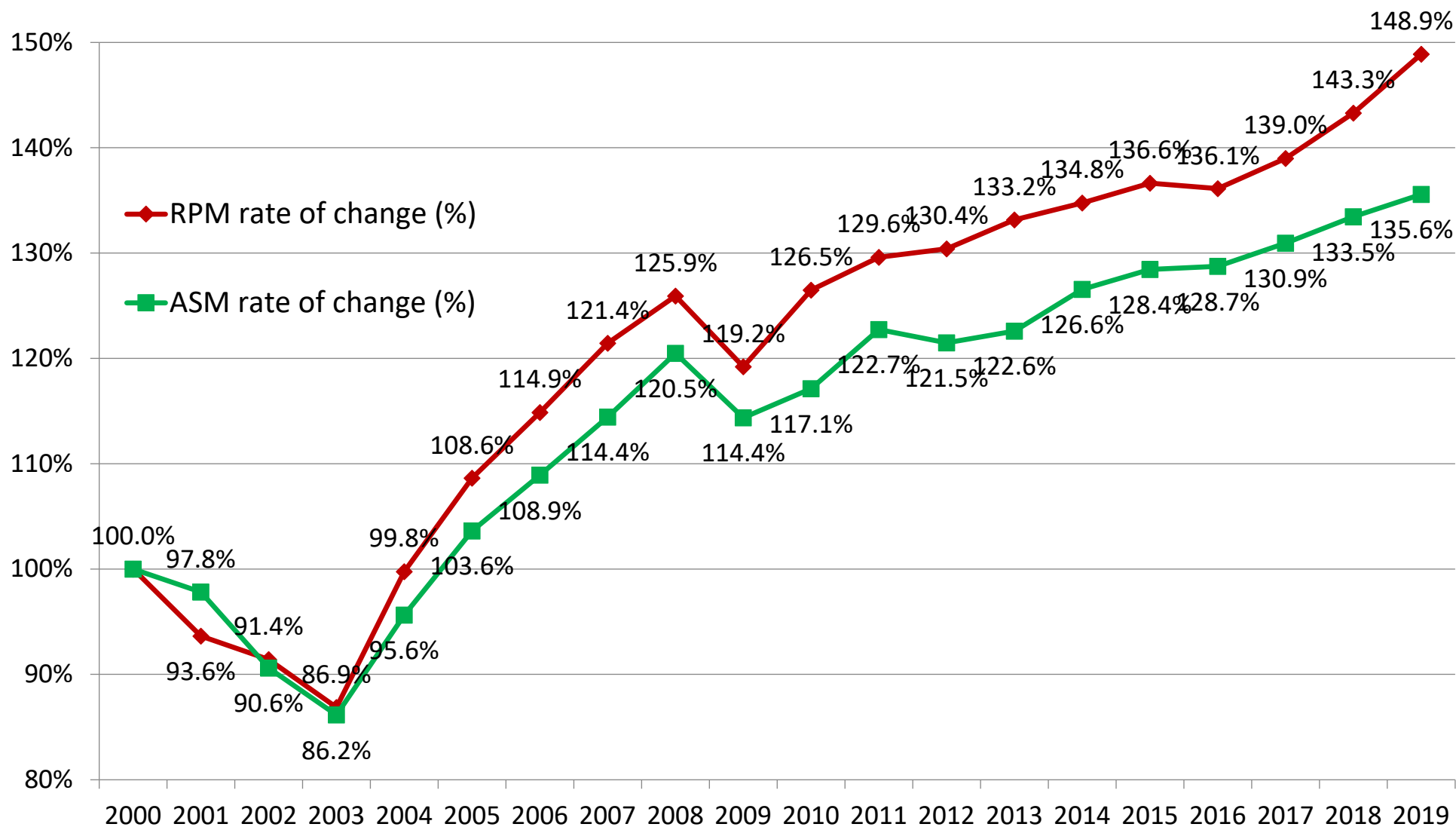
(Reference) Supply and demand trends

Network carriers (international)



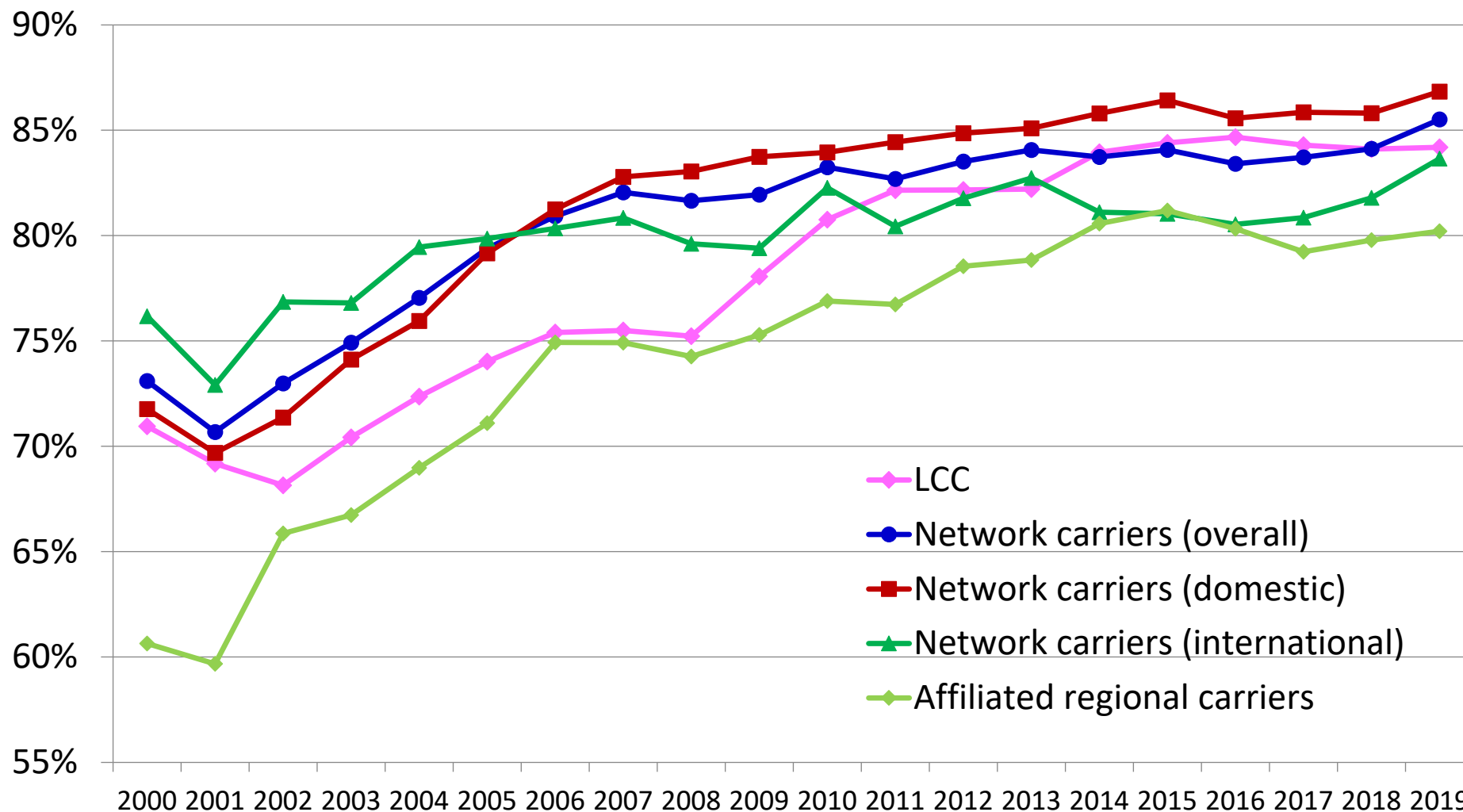
(Reference) Supply and demand trends

Network carriers (international)



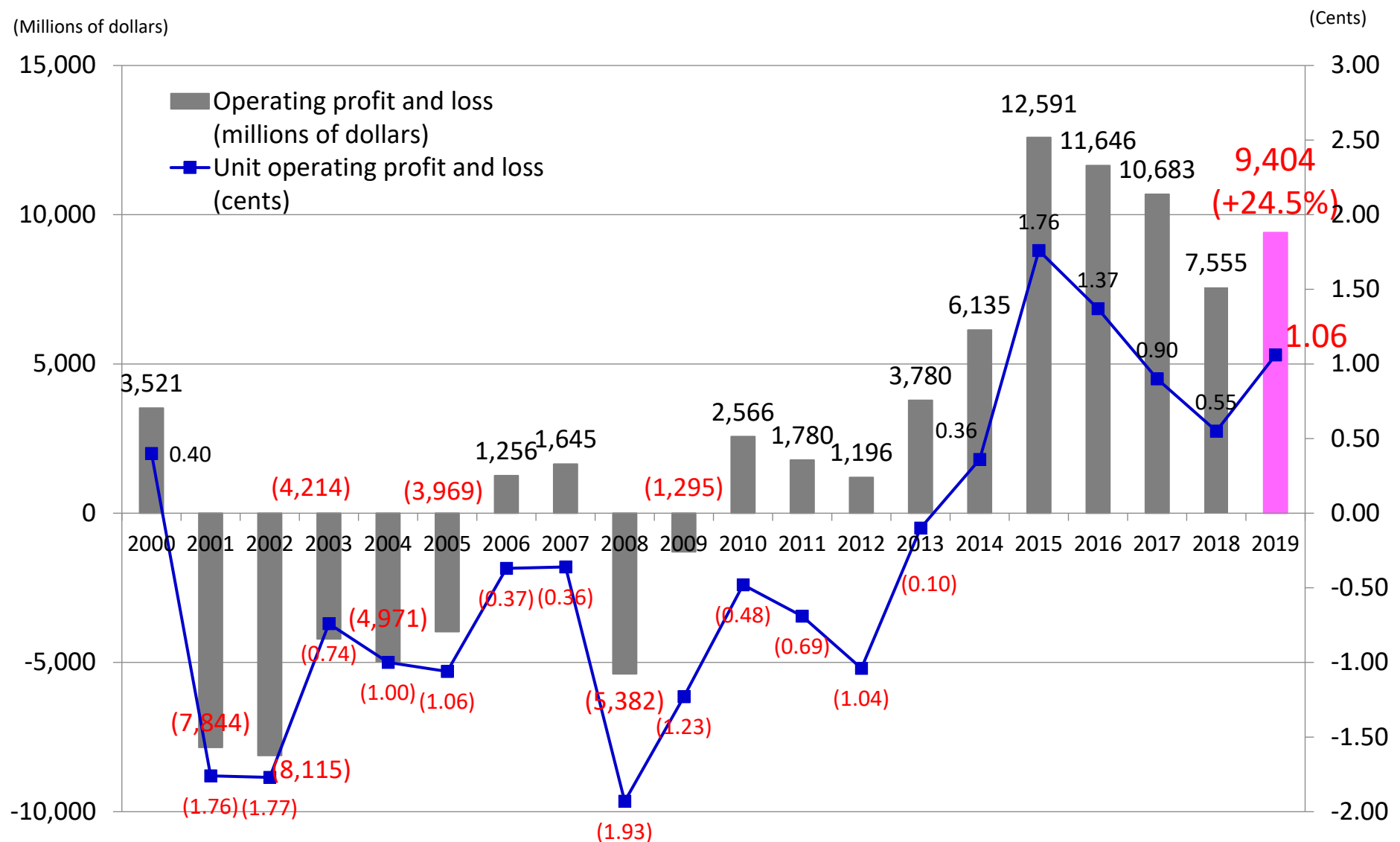
(Reference) Supply and demand trends

Load factor



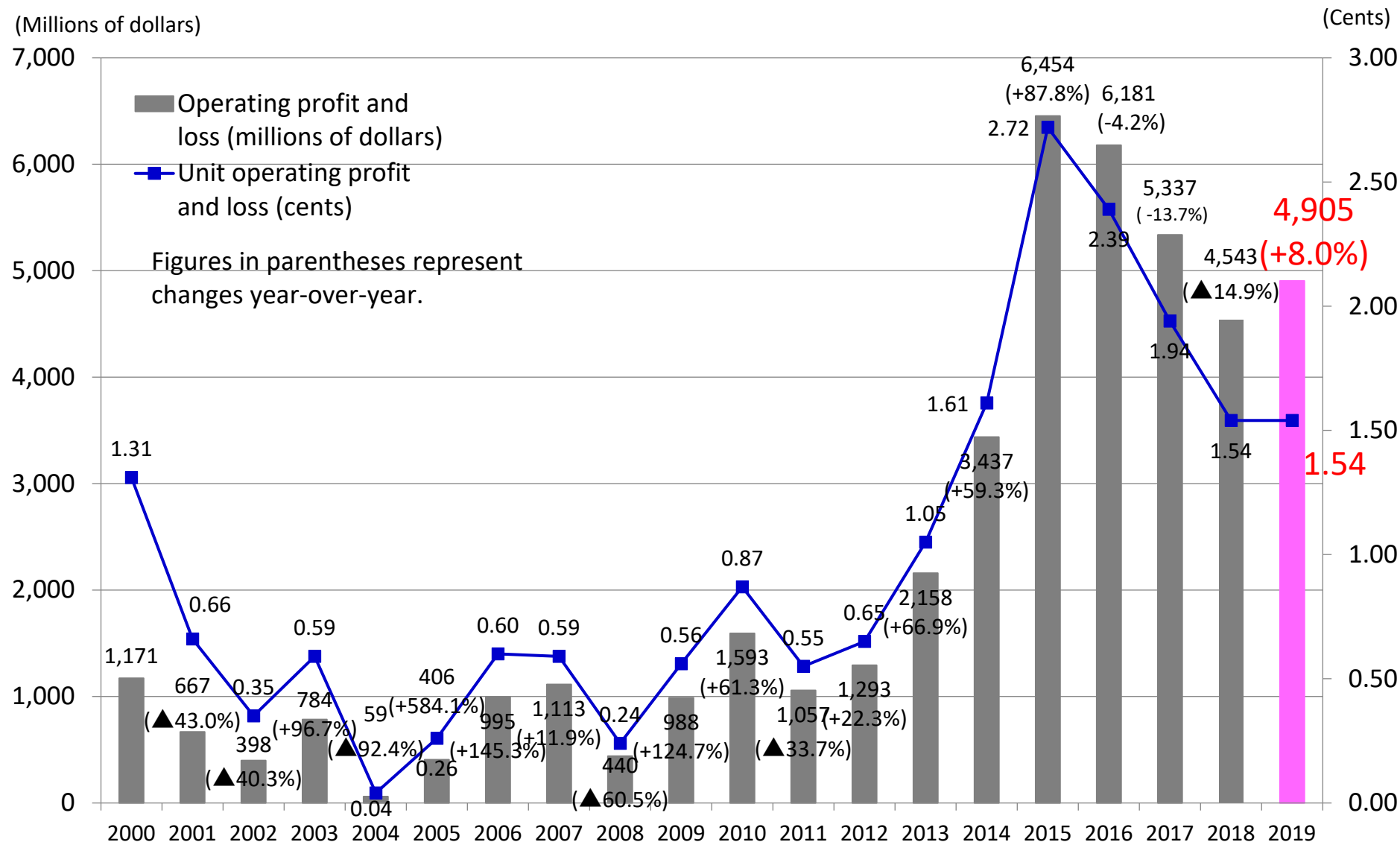
(Reference) Operating profit/loss

Network carriers (domestic)



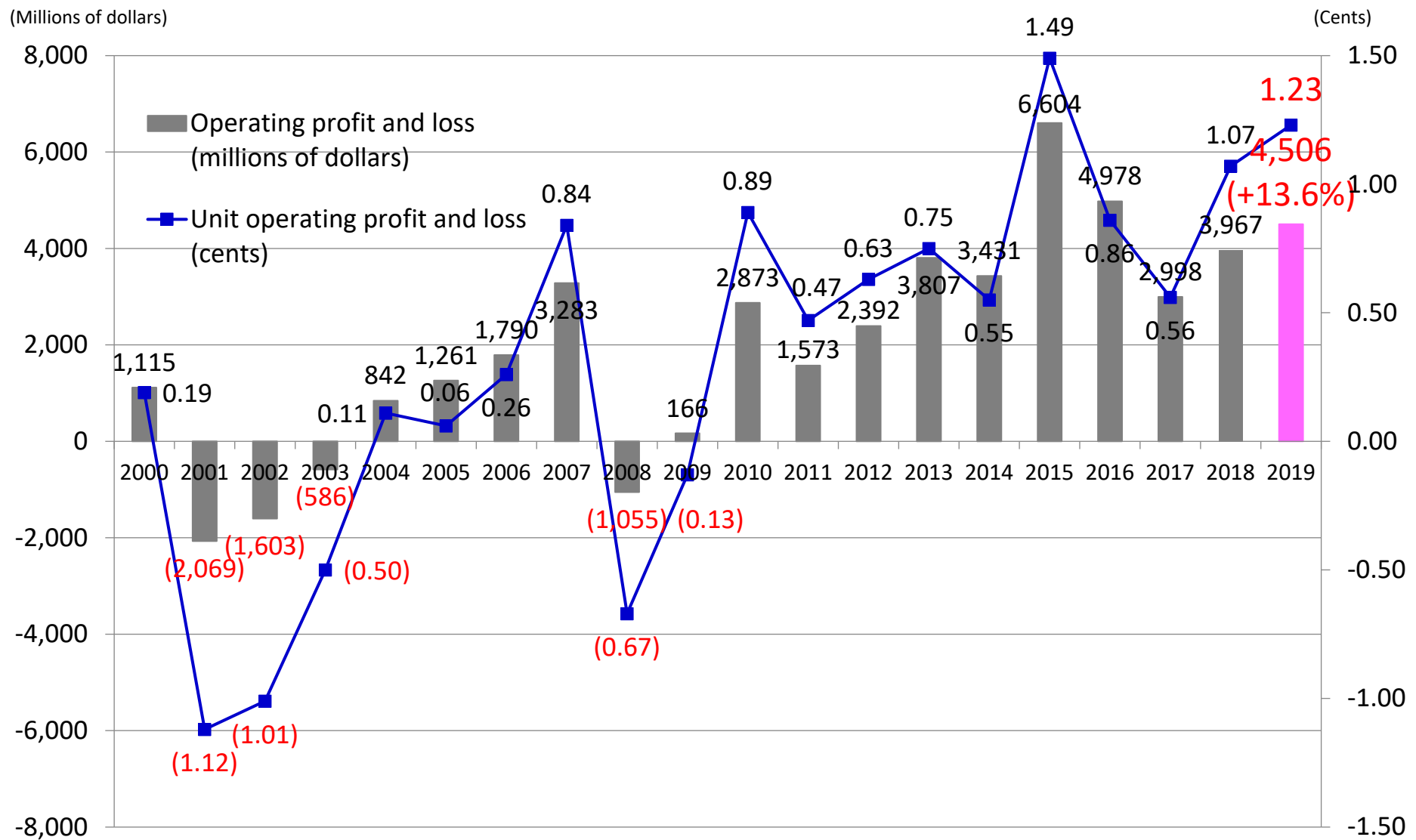
(Reference) Operating profit/loss

LCCs



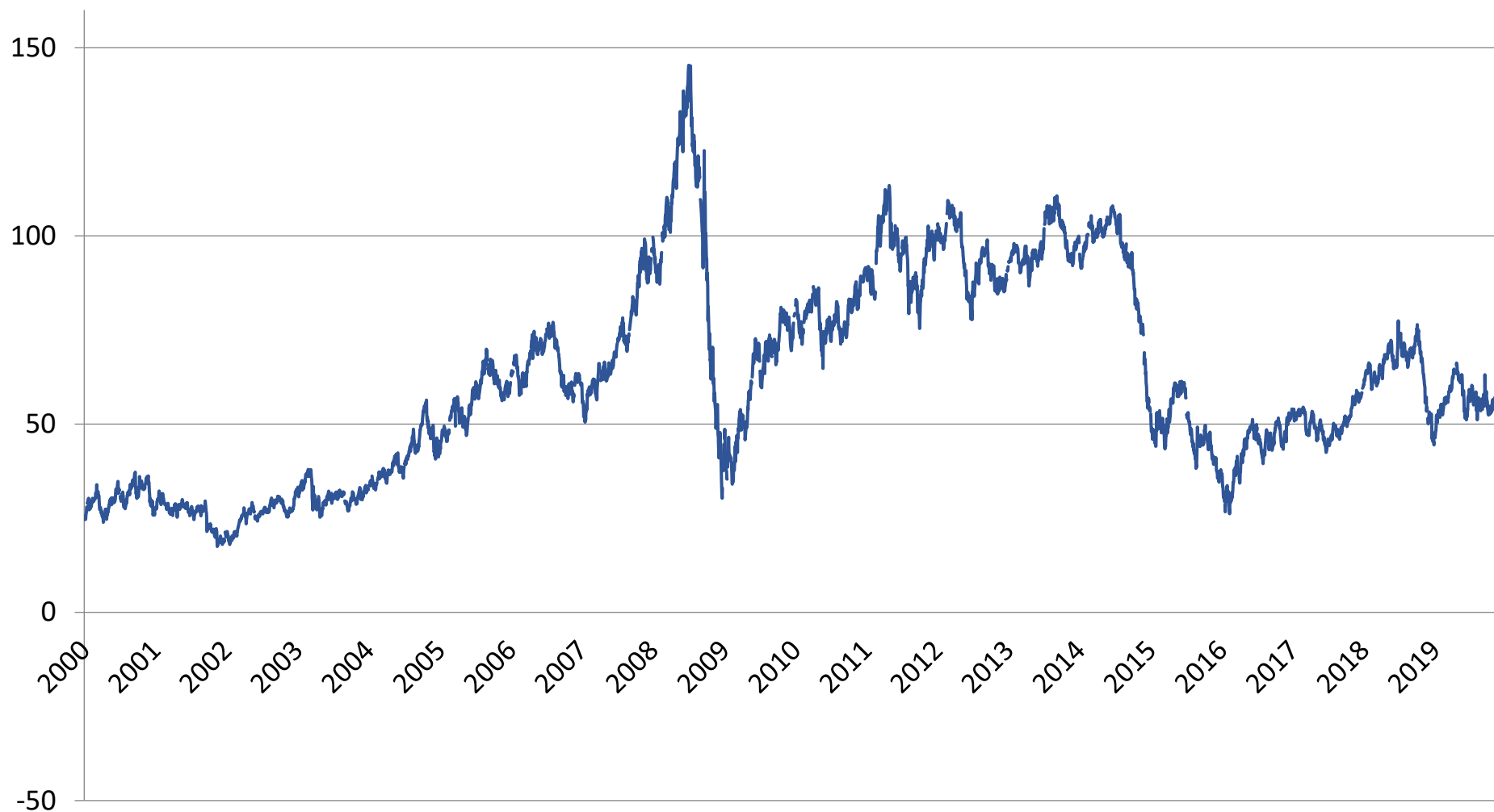
(Reference) Operating profit/loss

Network carriers (international)



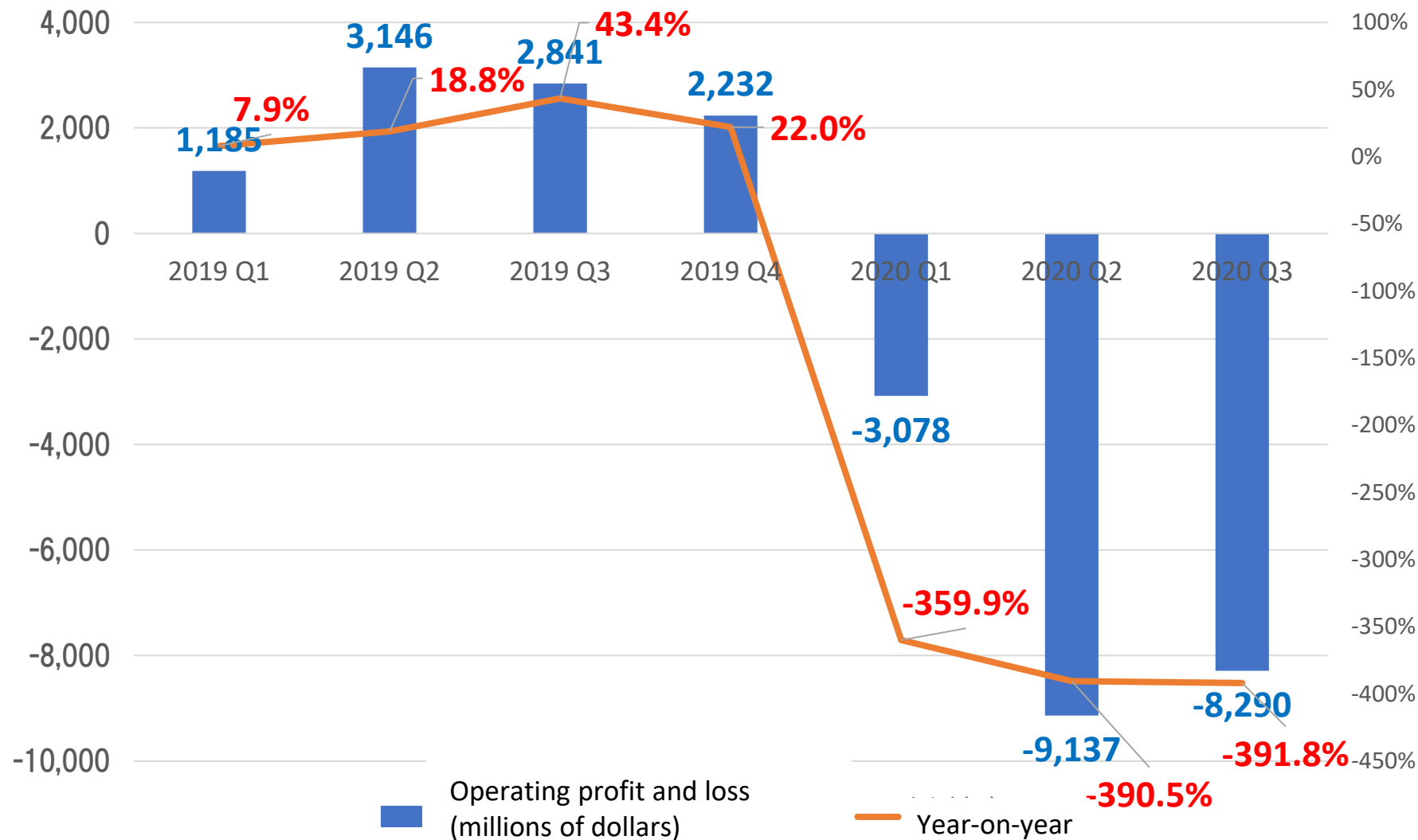
(Reference) Operating profit/loss

(Dollars/Barrel) Crude Oil Prices: West Texas Intermediate (WTI) - Cushing, Oklahoma



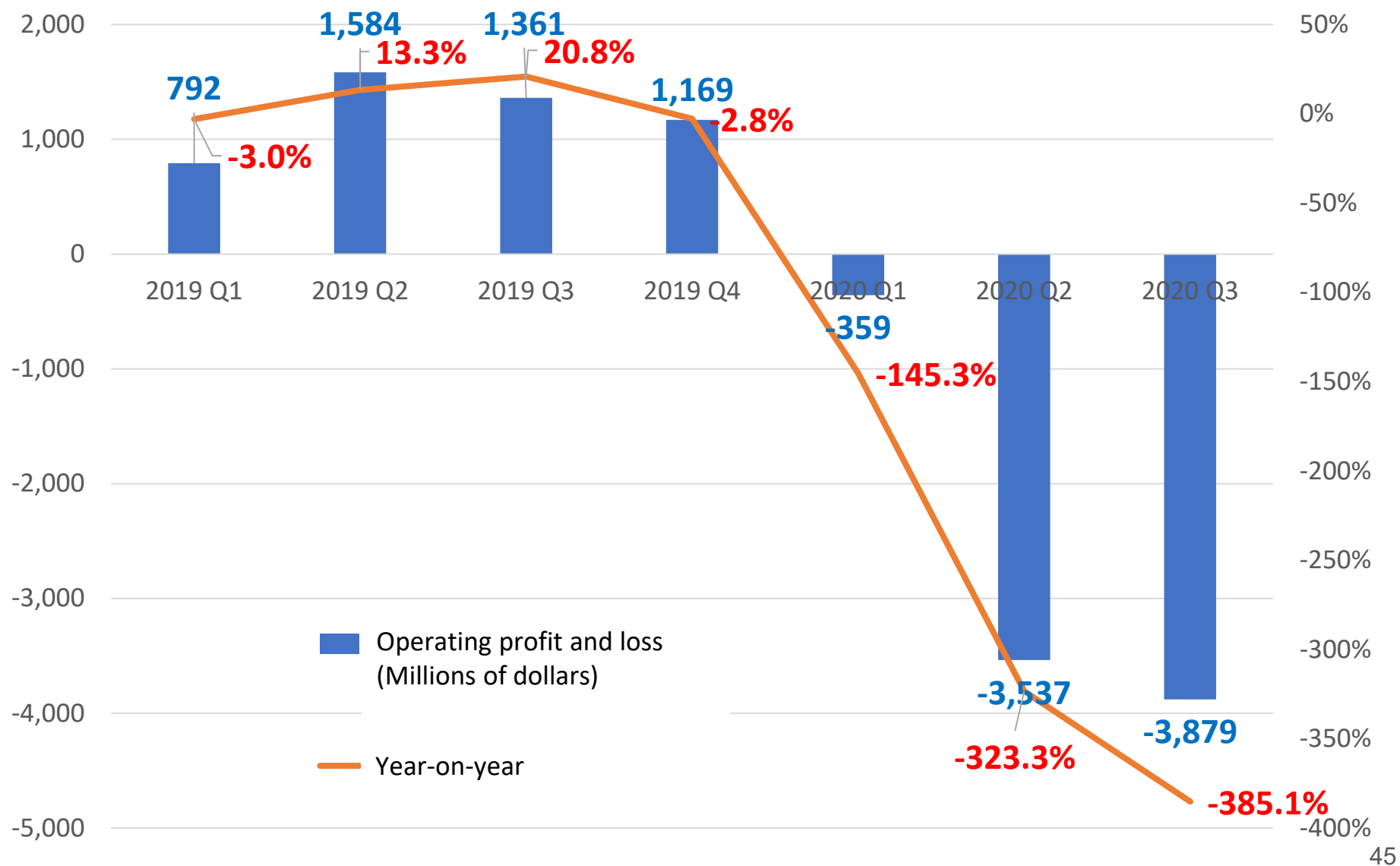
(Reference) Operating profit/loss

Network carriers (domestic)



(Reference) Operating profit/loss

LCCs



(Reference) Operating profit/loss

Network carriers (international)

