

Alternative data in SPPI on air passenger transport (51.10)



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The Consumer Price Index (CPI) for air passenger transportation



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BUT THE CPI :

- Takes into account : **Foreign (non-resident) airlines**
- Does not take into account : **BtoB and BtoE**



- **200,000 prices collected each month by a bot**

Using the digital booking platform Travelport for members of GDS

Only low-cost airlines through webscraping

Generalysed webscraping was tested but proved less robust:bot blocks, authorization may be canceled, website architectures may change

→ **Non-realized transactions**



- 200,000 prices collected each month by a bot on the booking platform
- Prices all taxes included for roundtrips with departure from France available at the time of the search

Includes only one luggage and credit card fees

→ Consistent with ISIC as other services (additional luggages, special seat or meals, travel agency fees) are classified into the activities of travel agencies (63.30) and other supporting air transport activities (63.23) classes

By product : origin/final destination, connection, airline, class

Sampling based on traffic, eventually 377 flights from 60 companies covering 46 % of traffic from France

By profile : advance booking (2, 11 and 20 days, 1 1/2, 3 and 6 months)

duration of stay (< 24 hours, 3 days, 1 and 3 weeks)

flexibility (exchange and reimbursement without fees, lowest price)



- **200,000 prices collected each month by a bot on the booking platform**
- **Prices all taxes included for roundtrips with departure from France available by product and profile**
- **Weighting of the products is based on annual traffic data and MIDT (booking) data**
 - Allows to « correct » for connections
- Weighting of the profiles is based on annual passenger survey (ENPA)**
 - Distribution computed for 8 different « markets »



- 200,000 prices collected each month by a bot on the booking platform
- Prices all taxes included for roundtrips with departure from France available by product and profile
- Weighting of the products is based on annual traffic data and MIDT (booking) data
Weighting of the profiles is based on annual passenger survey (ENPA)
- To compute a Passenger Air Transport Price Index (PATPI)

Departure	Airline	Resident passengers		Non-resident passengers	
		Entreprises	Households	Entreprises	Households
France	French	BtoB	BtoC	BtoE	BtoE
	Foreign	Out of scope	Out of scope	Out of scope	Out of scope
<i>Abroad</i>	<i>French</i>	<i>BtoB</i>	<i>BtoC</i>	<i>Export</i>	<i>Export</i>
	<i>Foreign</i>	<i>Out of scope</i>	<i>Out of scope</i>	<i>Out of scope</i>	<i>Out of scope</i>

	CPI
BtoB	PATPI
<i>Abroad</i>	Not covered



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Going beyond the flag of the company

→ Locating the unit of production : existence of a hub, residence of the aircrafts

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No data on travel purposes (private/professional)

Proxy : class, but certainly not very reliable

Data on purposes available in passenger surveys → could be used to adjust/calibrate

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3. DISTINGUISH AMONG CLIENTS BETWEEN RESIDENT AND NON-RESIDENT

Proxy : destination (assuming non-residents will only fly on international flights)

Additional assumption : prices of round trips with departure from France are equal to the price of the same round trip but with departure abroad

→ Not wrong but different seasonality



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→ Not wrong but different seasonality

4. DEDUCTING TAXES TO COMPUTE BASE PRICE INDICES



Thank you for your attention !

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