



BANK OF JAPAN

Services Producer Price Index for Door-to-door parcel delivery



Bank of Japan
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*The views expressed in the slides are those of the author and do not necessarily represent the position of the Bank of Japan. All the examples are hypothetical.

Price surveys procedure

II-1 Surveyed “Item” selection

II-2 Preparatory work for initialization

II-3 Survey respondents initialization

I-4 Tentative price collection and follow-ups

I-5 Ongoing price surveys

We will focus on II-2 and II-3 in the following slides.



Topics

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Service definition

2

Weight calculations

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Price determining characteristics

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Pricing methods

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2015 rebasing project of this price index

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Index developments



1. Service definition

- The door-to-door parcel delivery is collecting and shipping service for parcels weighing less than 30 kg.
- The definition of this service follows the definition by the Ministry of Land, Infrastructure and Transport of Japan.
- Since this service is classified in JSIC 44 The Road freight transportation, our focus is only on the door-to-door parcel delivery services provided by trucks.
- International express delivery services are outside of our focus.



1. Service definition

- The road freight transportation is defined in JSIC 441 Common motor trucking, 442 Motor trucking (Particularly - Contracted), 443 Mini-sized vehicle freight transport, 449 Miscellaneous road freight transport.
- Those JSIC codes are corresponding to the ISIC 4923 Freight transport by road.



2. Weight calculations

■ Main data source

- The Input-Output Tables code “5722-011 Road freight transportation(except self transport)”
- The Ministry of Land, Infrastructure and Transport of Japan “Statistical Survey on Motor Vehicle Transport”
- Business income information from service providers’ press release documents

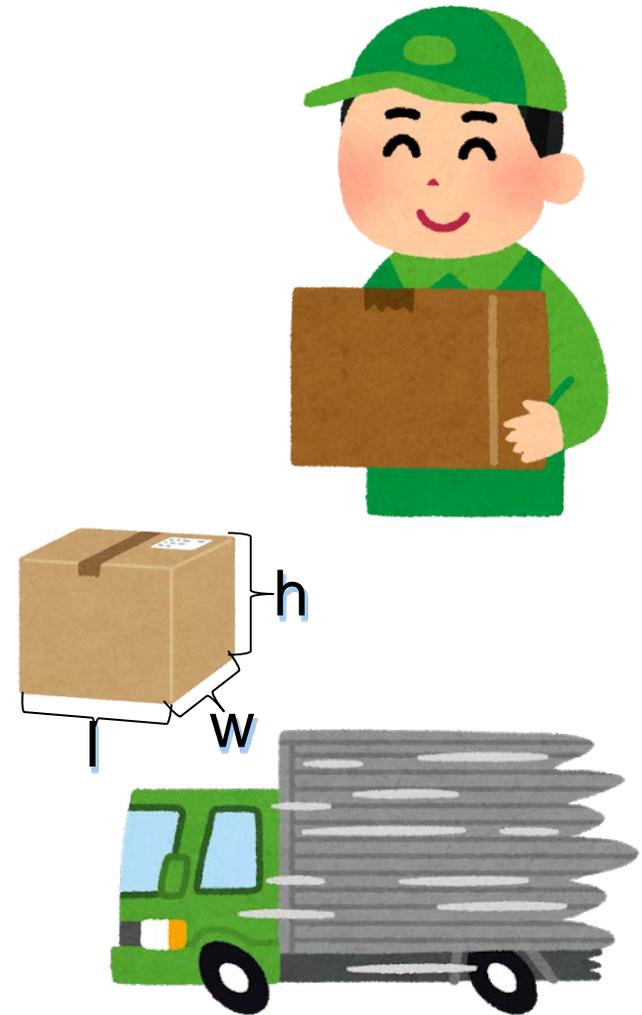
■ Market size and weight at the year 2015

Item	Market size	Weight
Door-to-door parcel delivery	1.4trillion yen	10.6/1000



3. Price determining characteristics

- Area
 - From Tokyo to Osaka
- Parcel Type
 - General parcels
 - Refrigerated and frozen items
- Parcel size: length+width+height
 - 60cm size, 80cm size, 100cm size
- Contract type
 - Long-term contract, one time contract
- High volume customer or not
- High volume provider or not



4. Sample design: three steps

(1) Specify main price determining characteristics

- Route
- Services providers

We usually estimate market share in “Route” and “Service providers” by using other statistics and/or approximate information from industrial organizations.

		Services providers			
		A inc. 40 %	B inc. 20%	C inc. 15%	Others 25%
Route	From Tokyo to Sapporo 40%				
	From Tokyo to Osaka 35%				
	Others 25%				

(Note) This chart is hypothetical.

Names of respondents and number of sample prices are strictly kept confidential.



4. Sample design: three steps

(2) Number of sample prices

- Number of sample prices is dependent on how big this service market is and how different price movements are in each service.
- Number of sample prices is set 10 for this example.

		Services providers			
		A inc. 40 %	B inc. 20%	C inc. 15%	Others 25%
Route	From Tokyo to Sapporo 40%	●●	●	●	
	From Tokyo to Osaka 35%	●	●●		
	Others 25%	●●		●	

(Note) This chart is hypothetical.

Names of respondents and number of sample prices are strictly kept confidential.



4. Sample design : three steps

(3) Specify survey respondents candidates

- A.inc, B.inc, and, C.inc are the respondents candidates.

		Services providers			
		A inc. 40 %	B inc. 20%	C inc. 15%	Others 25%
Route	From Tokyo to Sapporo 40%	●●	●	●	
	From Tokyo to Osaka 35%	●	●●		
	Others 25%	●●		●	

(Note) This chart is hypothetical.

Names of respondents and number of sample prices are strictly kept confidential.



II-3 Survey respondents initialization

II-3-1 Contact right people

II-3-2 Specify representative transactions

II-3-3 Select pricing methods (see section 3)

II-4-1 Collect tentative price data

II-4-2 Follow up tentative price collection

We will focus on II-3-2 and II-3-3 in the following slides.



5. Pricing methods

- At an initialization meeting, we ask respondents the following questions.
 - Representative transactions
 - Pricing mechanism
 - Price determining characteristics
- When we specify one representative transaction
 - “Direct use of repeated transactions”
- When we can not specify only one representative transaction
 - “Unit value method”



5-1 Direct use of repeated transactions

- When we specify one representative transaction, prices of “Direct use of repeated transactions” are surveyed.

Parcel type	: General
Content	: Textbooks
Parcel size	: 60cm size
Departure	: Tokyo
Destination	: Osaka
Customer	: XXXX inc.
Provider	: A inc.
Unit	: Per parcel

→ Prices per parcel are surveyed.



5-2 Unit value method

- When we can not specify only one representative services, we apply unit value method.
- Multiple transactions for similar services with different quality are grouped to calculate prices, within the limit where the condition of constant quality is guaranteed.

Parcel type	: Frozen
Content	: Frozen food
Size of parcels	: 80cm size
Departure	: Sapporo
Destination	: Tokyo
Customer	: X2.inc and X3.inc
Provider	: B inc.
Unit	: Per parcel



→ Average prices per parcel are surveyed.



6. Quality adjustment

- Ideally, quality adjustments for the following quality changes of the services due to technical improvements should be implemented.
 - Shorter delivery time
 - Better temperature control

- However, the BOJ does not quality-adjust, since sufficient information for quality-adjust is not available now.

- How about in your country?



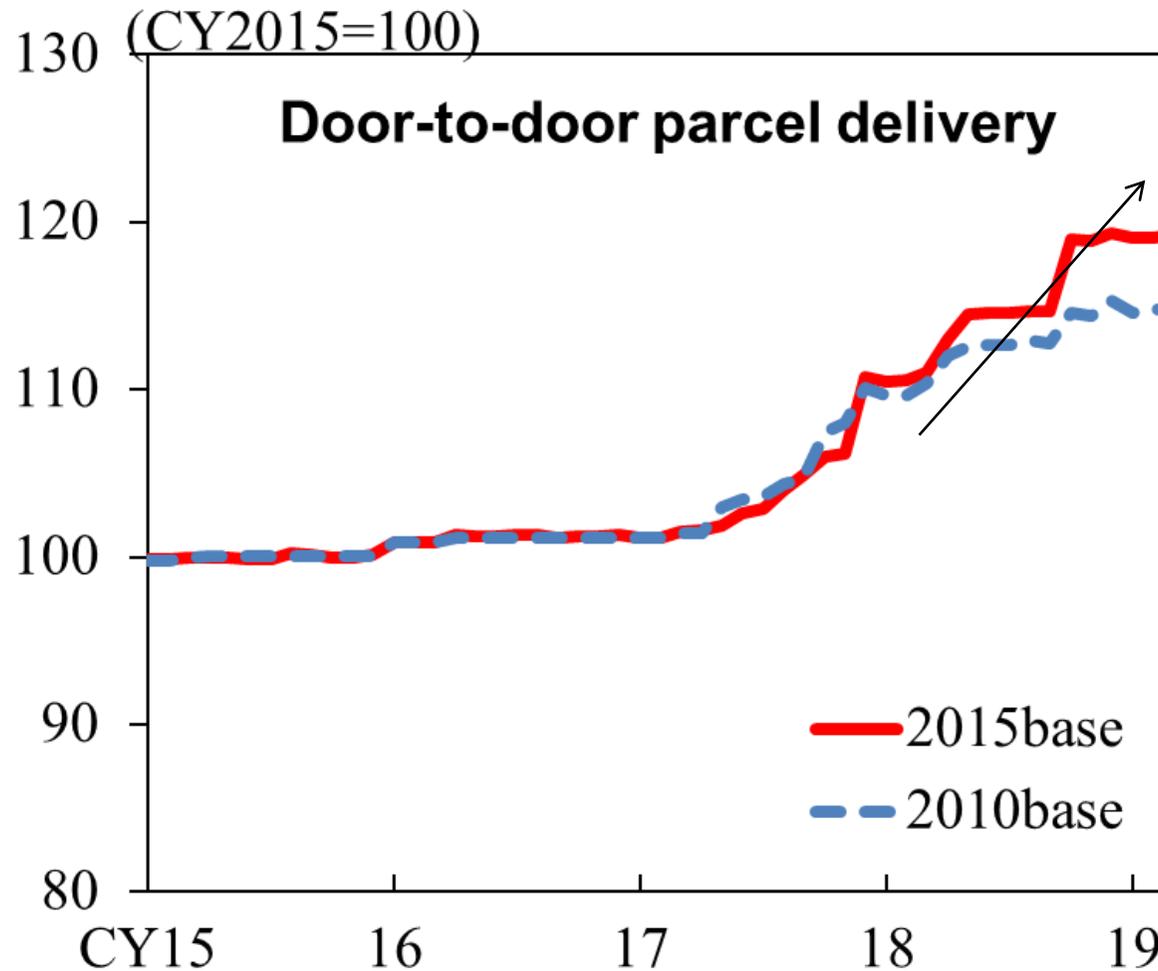
7.Rebasing

- We rebased this index from the 2010 base to the 2015 base.

- In rebasing project, we did the following things.
 - Revised existing Items
 - Updated sample design to reflect the current market situation



7. Index developments



Recently door-to-door parcel delivery prices have increased mainly due to a shortage of labor.

(Note) For comparison, the 2010 base indexes in CY 2015 are set as 100.



謝謝 ! Thank you for your attention!



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