Japan’s Data Collection System for Trade in Services
- Use of ITRS and dealing with ITRS threshold -

Toshie Kori
International Department, Bank of Japan

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Data Source for Japan’s trade in services

Primary source data for Japan’s trade in services is ITRS, supplemented by various source data. Most of the source data are collected under Foreign Exchange and Foreign Trade Act (hereafter, the Act), and pursuant to relevant ministerial ordinance.

Data sources for Japan’s TIS;

ITRS <Report on payments and receipts >
Surveys for specific business based on the Act
Other data sources
Legal framework

Foreign Exchange and Foreign Trade Act (The Act)

Regulates the overall foreign exchange and cross-border transaction. The regulations have been gradually liberalized.

Requires MOF to compile BOP and IIP data, and to report them to the Cabinet.

Enables MOF to entrust the compilation work to the BOJ.

Article 55-9:
The Minister of Finance shall, as prescribed by a cabinet order, compile the statistics on international investment position and on balance of international payments, and report them to the Cabinet periodically.

Article 69:
The competent Minister may, as prescribed by a cabinet order, entrust the Bank of Japan with a part of the affairs concerning the enforcement of this Act.
Overview of data sources for Japan's trade in services

Reports based on the Act and relevant ministerial ordinance

Primary data source for external statistics: *Report on Payments and Receipts <ITRS>*

- Surveys for major financial institutions (transactions reporters in the survey are exempted to report through ITRS)
- Surveys for financial transaction (no exemption for reporting ITRS)
- Survey designed for statistical purposes (no exemption for reporting ITRS)
- Survey stipulated in the ministerial ordinance

Other data sources

- Personal and household survey on travel
- Administrative source (number of travelers, etc.)
- Data purchased from private data source
- Other data sources

Survey ordered by written notification of the MOF
# Overview of data sources for Japan's trade in services

<table>
<thead>
<tr>
<th>Trade in service item</th>
<th>Source data</th>
<th>Source data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>credit</td>
<td>debit</td>
</tr>
<tr>
<td>Transport</td>
<td></td>
<td></td>
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<tr>
<td>Sea transport</td>
<td>International transportation survey, ITRS</td>
<td>International transportation survey, ITRS, trade statistics, other source</td>
</tr>
<tr>
<td>Air transport</td>
<td>International transportation survey, ITRS</td>
<td>International transportation survey, ITRS, trade statistics, other source</td>
</tr>
<tr>
<td>Other</td>
<td>ITRS</td>
<td>ITRS</td>
</tr>
<tr>
<td>Travel</td>
<td>Boarder survey, administrative source, ITRS, other sources</td>
<td>Household survey, administrative source, ITRS, other sources</td>
</tr>
<tr>
<td>Manufacturing services on physical inputs owned by others</td>
<td>ITRS</td>
<td>ITRS</td>
</tr>
<tr>
<td>Maintenance and repair services n.i.e.</td>
<td>ITRS, International transportation survey</td>
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<td><strong>credit</strong></td>
</tr>
<tr>
<td></td>
<td>ITRS</td>
</tr>
<tr>
<td>Insurance and pension services</td>
<td>ITRS, survey on freight insurance, other source</td>
</tr>
<tr>
<td>Financial services</td>
<td>Surveys for financial institutions, ITRS, survey on issuance and offering of securities, other sources</td>
</tr>
<tr>
<td>Charges for the use of intellectual property n.i.e.</td>
<td>ITRS</td>
</tr>
<tr>
<td>Telecommunications, computer, and information services</td>
<td>ITRS</td>
</tr>
<tr>
<td>Other business services</td>
<td>ITRS</td>
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<tr>
<td>Personal, cultural, and recreational services</td>
<td>ITRS</td>
</tr>
<tr>
<td>Government goods and services n.i.e.</td>
<td>ITRS, administrative source, International transportation survey</td>
</tr>
</tbody>
</table>
Japan's ITRS - outline -

Reporter:

- All residents who made cross-boarder transactions above threshold, regardless of whether they are or not settled through the resident banking system
  - There are some exemptions from reporting requirement, that are specified in the ministerial ordinance.
- Banks can report on behalf of their customers, but transactors are responsible to report

Threshold:

- In principle, 30 million JPY or the equivalent in foreign currency per transaction

Penalties against failure to respond and false reports:

- Fine of at most 500 thousands yen or up to 6 months' of imprisonment
Four reporting forms for "Report on payments and receipts"

<table>
<thead>
<tr>
<th>Report on individual settlement</th>
<th>Transaction settled through resident banking system</th>
<th>Transactions settled not through the resident banking system</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annexed form 3</td>
<td>Submit through resident banks or MTOs who settled the transaction</td>
<td>Annexed form 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>– Submit directly to Bank of Japan</td>
</tr>
<tr>
<td>Report on monthly aggregate basis</td>
<td>Annexed form 4</td>
<td>Annexed form 2</td>
</tr>
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Transactions that do not involve cash movement, e.g. offsetting gross credit and debit transactions, netting arrangements, are required to report in the original claims and liabilities on gross basis.
Japan's ITRS – advantage –

Example of transactions settled not through the resident banking system

[Country X]

When C made the payment to B on behalf of A, A is required to report:
(a) payment for “charges for the use of intellectual property” to B
(b) incurrence of loan from C

by “Payment and receipts made outside banks and MTOs” (annexed form 1 or 2)

When A repaid to C, A is required to report:
(c) repayment of loan to C

by “Payment and receipts made through banks and MTOs” (annexed form 3 or 4)
When A received 0.6 million USD for the settlement of claim and liability, A report

a) receipt of 0.4 million USD for "charges for the use of intellectual property" from B
   by "Payment and receipts made through banks and MTOs" (annexed form 3 or 4)

b) payment of 0.6 million USD for "research and development" to B

c) receipt of 0.6 million USD for "charges for the use of intellectual property" from B
   by “Payment and receipts made outside banks and MTOs” (annexed form 1 or 2)
(Reference) Balance of Payments classification code used for Japan's ITRS

<table>
<thead>
<tr>
<th>Code</th>
<th>Purpose of payments/receipts</th>
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<tr>
<td>077</td>
<td>Expenses for trade-related service (exclude price adjustment expenses)</td>
<td>112</td>
<td>Settlement of credit card uses</td>
<td>311</td>
<td>Cargo insurance premiums</td>
<td>411</td>
<td>Telecommunications services</td>
</tr>
<tr>
<td>081</td>
<td>Fees for processing (involving re-import/re-export of processed goods)</td>
<td>113</td>
<td>Travel expenses (payables between travel agencies), expenses for international students (for more than one year)</td>
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<td>Cargo insurance claims</td>
<td>421</td>
<td>Construction services</td>
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<td>Travel expenses (payables not between travel agencies), expenses for international students (for less than one year)</td>
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<td>Non-life insurance premiums</td>
<td>431</td>
<td>Fees for financial service (exclude fees for issuance and offering of securities)</td>
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<td>Non-life insurance claims</td>
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<td></td>
<td>315</td>
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<td>441</td>
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Transport service (for enterprise who report international transport survey)

- 211 Sea freight transport
- 212 Air freight transport
- 213 Passenger fare on sea transport
- 214 Passenger fare on air transport
- 215 Sale/purchase of fuels, provisions, and other goods at ports
- 216 Rental or charter of vessels
- 217 Rental or charter of aircrafts
- 218 Expenses related to sea transport
- 219 Expenses related to air transport

Transport service (for those who do not report international transport survey)

- 221 Sea freight transport
- 222 Air freight transport
- 223 Passenger fare on sea transport
- 224 Passenger fare on air transport
- 225 Freight other than marine and air transports (e.g., pipeline)
- 226 Passenger fare on transport other than sea and air
- 227 Sale/purchase of fuels, provisions, and other goods at ports
- 228 Rental or charter of vessels (leased with a crew)
- 229 Rental or charter of vessels (leased without a crew)

Sale/purchase intellectual property

- 720 Sale/purchase of industrial property
- 721 Sale/purchase of copy rights for computer software
- 722 Sale/purchase of copy rights other than computer software
- 723 Sale/purchase of other rights

Other service

- 411 Telecommunications services
- 421 Construction services
- 431 Fees for financial service (exclude fees for issuance and offering of securities)
- 441 Computer services
- 442 Information services
- 451 Charges for the use of intellectual property (excluding fees for copyright)
- 452 Fees for copyright
- 453 Fees for use of mineral rights
- 461 Operational leasing services (excluding financial leases)
- 462 Advertising, public relations, and market research services
- 463 Legal, accounting, and auditing service
- 464 Research and development services
- 468 Other professional services
- 469 Expenses for local offices (excluding expense related to construction site offices)
- 471 Cultural and educational services
- 472 Audiovisual and related services
- 481 Expense related government agencies and international organizations

(note) The above BOP classification code will be applied after January 2014 transaction, along with implementation of BPM6.
One of the disadvantages of ITR is an under coverage of small-value transactions due to an existence of reporting threshold.

For the case of Japan's ITRS, along with a series of deregulation, a reporting threshold has been lifted several times.

Current threshold is 30 million JPY, approximately 300 thousand USD, which was raised from 5 million yen in April 2003.
Such a high threshold can damage quality of data.

Data before the threshold was raised indicate that there are considerable number of small-value transactions.
To capture small-value transactions below the threshold, Japan will employ a statistical model starting from 2014, together with implementation of BPM6.
**Distribution of data reported under ITRS**

Reported data suggest that the number of service transactions increase exponentially as transaction value becomes smaller.

Statistically, Pareto distribution fits well to the data.
Capturing small-value transactions

Outline of Japan’s approach

Reported data transactions above the threshold

Missing data transactions below the threshold

Estimated as

Average value of transactions below the threshold \times \text{Number of transactions below the threshold}

derived by pareto distribution
Capturing small-value transactions

Step 1. Estimate the number of transactions below the threshold.

Probability A and Probability B are derived from pareto distribution.

A

B

Estimated transactions

Pareto distribution

30 million JPY (threshold)
Step 2. Estimate an average value of transactions below the threshold.

The average value is derived from “pareto distribution”.

Step 3. Finally, calculate total value of transactions below the threshold.

\[
\text{Total value of transactions below the threshold} = \text{Average value of transactions below the threshold} \times \text{Number of transactions below the threshold}
\]
Capturing small-value transactions

Reported value $<A>$
- Total value of transactions above the threshold

Missing value $<B>$
- Total value of transactions below the threshold

Complement ratio* = \[
\frac{\text{Reported value } <A> + \text{Missing value } <B>}{\text{Reported value } <A>}
\]

* derived by item on annual basis

Monthly TIS by item
= Monthly reported value x Complement ratio

The estimation is made separately by BOP classification code, and by credit/debit.
Advantages of Japan’s approach

Advantages in Japan’s approach;

- Ratio can be updated periodically with recent data
  - Structural changes and price changes caused with the passage of time can be captured.

- Distribution fitting will be assessed on a frequent basis
  - Statisticians are able to choose other statistical approach when the implemented method does not fit well.
Thank you!!