COMPILATION OF E-COMMERCE DATA FOR BALANCE OF PAYMENTS STATISTICS

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WHAT IS ELECTRONIC COMMERCE?

• OECD* definition of an e-commerce transaction:
  – “...the sale or purchase of goods or services, conducted over computer networks by methods specifically designed for the purpose of receiving or placing of orders”.
  – Payment and delivery do not have to be conducted online.
  – Orders made by telephone calls, fax or manually typed e-mail excluded.
• E-commerce transaction is basically a digitally ordered transaction,
• OECD-WTO-IMF** definition of digital trade:
  – digital trade as trade that is digitally ordered and/or digitally delivered.

** OECD-WTO-IMF Handbook on Measuring Digital Trade, 2019
THE CONCEPTUAL FRAMEWORK OF DIGITAL TRADE
REPORTING TEMPLATE FOR DIGITAL TRADE

Goods and services account of the balance of payments: accounting principles for digital trade follow those of BPM6, except Digital Intermediary Platforms (DIP).

<table>
<thead>
<tr>
<th>Total</th>
<th>By Exporter/Importer</th>
<th>Government</th>
<th>Households/NPISH</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i)</td>
<td>Digital Trade (ii+iv+vi+ix)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ii)</td>
<td>Digitally ordered ICT goods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(iii)</td>
<td>of which via DIPs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(iv)</td>
<td>Digitally ordered goods (other)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(v)</td>
<td>of which via DIPs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(vi)</td>
<td>Digitally delivered Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(vii)</td>
<td>of which via DIPs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(viii)</td>
<td>of which digitally ordered (including via DIPs)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ix)</td>
<td>Digitally ordered services (not delivered digitally)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(x)</td>
<td>of which via DIPs</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Addendum items

(xi) Digitally ordered total (ii+iv+vi+ix)
(xii) ICT goods total (digitally and non-digitally ordered)
(xiii) Potentially ICT enabled services
(xiv) Non-monetary transactions in information/data (imputed)
MAIN TYPES OF E-COMMERCE

• Business-to-Business (B2B), e.g. manufacturers who are selling their product to distributors, and the wholesalers are selling it to retailers,
• Business-to-Consumer (B2C), involves selling products and services to the general public,
• Consumer-to-Business (C2B), when companies bid for consumer project online,
• Consumer-to-Consumer (C2C); e.g. eBay,
• Government-to-business (G2B); e.g. e-procurement,
• Business-to-Employee (B2C), when companies are using internal networks to offer their employees products and services online,
• etc.
## MAJOR E-COMMERCE MARKETS: TOP 10

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Economy</td>
<td>$ billion</td>
<td>% of GDP</td>
<td>$ billion</td>
<td>% of GDP</td>
</tr>
<tr>
<td>1</td>
<td>United States</td>
<td>7,055</td>
<td>39%</td>
<td>6,443</td>
<td>91%</td>
</tr>
<tr>
<td>2</td>
<td>Japan</td>
<td>2,495</td>
<td>60%</td>
<td>2,382</td>
<td>96%</td>
</tr>
<tr>
<td>3</td>
<td>China</td>
<td>1,991</td>
<td>18%</td>
<td>1,374</td>
<td>69%</td>
</tr>
<tr>
<td>4</td>
<td>Korea (Rep.)</td>
<td>1,161</td>
<td>84%</td>
<td>1,113</td>
<td>96%</td>
</tr>
<tr>
<td>5</td>
<td>Germany (2014)</td>
<td>1,037</td>
<td>27%</td>
<td>944</td>
<td>91%</td>
</tr>
<tr>
<td>6</td>
<td>United Kingdom</td>
<td>845</td>
<td>30%</td>
<td>645</td>
<td>76%</td>
</tr>
<tr>
<td>7</td>
<td>France (2014)</td>
<td>661</td>
<td>23%</td>
<td>588</td>
<td>89%</td>
</tr>
<tr>
<td>8</td>
<td>Canada (2014)</td>
<td>470</td>
<td>26%</td>
<td>422</td>
<td>90%</td>
</tr>
<tr>
<td>9</td>
<td>Spain</td>
<td>242</td>
<td>20%</td>
<td>217</td>
<td>90%</td>
</tr>
<tr>
<td>10</td>
<td>Australia</td>
<td>216</td>
<td>16%</td>
<td>188</td>
<td>87%</td>
</tr>
<tr>
<td>10 above</td>
<td>16,174</td>
<td>34%</td>
<td>14,317</td>
<td>89%</td>
<td>1,857</td>
</tr>
<tr>
<td>World</td>
<td>25,293</td>
<td>22,389</td>
<td>2,904</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Figures in italics are estimates. Missing data were estimated based on average ratios. Converted to $ using annual average exchange rate.
Source: UNCTAD, adapted from US Census Bureau; Japan Ministry of Economy, Trade and Industry; China Bureau of Statistics; KOSTAT (Republic of Korea); EUROSTAT (for Germany); UK Office of National Statistics; INSEE (France); Statistics Canada; Australian Bureau of Statistics and INE (Spain).
AVAILABLE DATA SOURCES FOR COMPILATION OF E-COMMERCE STATISTICS

- Official statistics on e-commerce
  - Enterprise survey data
  - Consumer survey data
- Private sector data on e-commerce
  - Data from e-commerce companies
  - Other private sector data related to measuring e-commerce
- E-commerce estimates
  - Sellers’ survey on the amount of overseas sales
SOURCES OF DATA USED FOR THE CURRENT RESEARCH

• Official statistics:
  - Customs Service external trade database;
  - Reporting form 31 - “Types of payment cards, payment card servicing equipment, as well as transactions with payment cards” provided to the Central Bank of Armenia;

• Payments data:
  - Armenian Card (ArCa) database;

• Data from e-commerce companies:
  - “Haypost” CJSC (postal service) aggregated data;
  - “Globbing” LLC aggregated data;
  - “Online Express” (ONEX) aggregated data
MERCHANDISE TRADE DATA

• Data format
  - Collection of data on goods (customs due over 2 kilos and/or 200,000 AMD (approximately 352 EUR) only exceeding part)
  - 5.7 million USD in 2017

• Shortcomings
  - E-commerce data classification based on Customs specialists’ expert opinion
  - Data by countries show the countries from where goods have been imported to Armenia (difficulty to identify countries where goods were bought)
  - No data on small envelopes
E-commerce by countries in 2017
(Merchandise trade data)

Share in 2017 total e-commerce

- USA
- UK
- China
- Italy
- Germany
- Other countries

Value, thousand USD

- 4-2017
- 5-2017
- 6-2017
- 7-2017
- 8-2017
- 9-2017
- 10-2017
- 11-2017
- 12-2017
- 1-2018
- 2-2018
- 3-2018
- 4-2018
REPORTING FORM 31

• Data format
  - Acquiring goods and services abroad via virtual E-POS
  - Information received from ArCa
  - Possibility to see online acquirement of goods and services abroad

• Shortcomings
  - Classification by country starting from 2017
  - No possibility to distinguish goods and services

• Overseas e-commerce
  total transactions in 2017 – 8.1 million USD
ArCa DATABASE

• **Data format**
  - Detailed identification of transactions (by country, type of POS terminal, etc.)
  - Include almost all online transactions in Armenia and from Armenia (except transactions that were done through processing centers of 3 banks)
  - 99% accuracy in distinguishing e-commerce transactions abroad

• **Shortcomings**
  - Identification of e-commerce is based on expert opinion
  - No possibility to see transactions out of ArCa system
  - No possibility to distinguish non-residents’ transactions in Armenia
  - No possibility to assess all e-commerce market in Armenia
E-commerce by countries in 2015-2017 (ArCa database)

- Overseas e-commerce (goods and services) volume in Armenia in 2017 was 39.1 million USD, increased by 39% compared to 2016.
- For 3 years in average 29% of transactions concerned buying goods and 71% - buying services.
- E-commerce (goods) volume was 12.9 million USD in 2017, increased by 63% compared to 2016.
- Average price of one transaction increased by 16% compared to 2016.
- 30.3% of transactions were through Paypal (2017).
- 22% of transactions were from Amazon (2017).
E-COMMERCE COMPANIES

• **Data format**
  - Presents to Customs Service only goods that exceed 2 kilos and/or 200 000 AMD (approximately 352 EUR)
  - Information on all parcels except small envelopes
  - Market in 5 countries – US, Russia, Germany, China, UK

• **Shortcomings**
  - Does not cover all overseas e-commerce market of Armenia
  - No information in database about parcels from Russia due to different procedure in Customs Service (reason: membership in EEU – Customs Union)
  - Shipping to the cargo abroad is included in the price of a good
  - Data available from end of March 2017
Figures by e-commerce companies (2017Q2-2018Q1)

- Overseas e-commerce total volume in Armenia for 4 quarters was approximately 8.1 million USD
USE OF E-COMMERCE DATA FOR COMPILATION OF BALANCE OF PAYMENTS STATISTICS

• Possibility to adjust import of goods in current account based on ArCa database
• Use services data to adjust services account, e.g. tourist services, advertising services, etc.

Shortcomings

• Problems with classification by residency
• Difficulties with calculation of transportation expenses to compile current account
• No data on e-commerce transactions of non-residents in Armenia
Conclusions and suggestions

Conclusions

• Only one regular reporting form (form 31) to estimate purchase of goods and services overseas
• Several sources available for compilation of e-commerce data but no regular reporting to public bodies

Suggestions

• Conduct enterprise surveys involved in e-commerce to measure supply side or add few questions on proportion of domestic and overseas e-commerce into existing survey questionnaire
• Additional administrative sources, i.e. reporting forms received on regular basis from Customs Service, ArCa and e-commerce market players in Armenia
Thank you
Q&A

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