



09:00-10:00	Registration, refreshments	Documents / Presentations
	INAUGURAL SESSION	
10:00-10:05	Welcome Remarks by Director General (ES), Ministry of Statistics & PI, Government of India	
10.05-10.15	Inaugural Speech by Secretary, Ministry of Statistics & PI, Government of India	

Inaugural Session

The Co-Chairs opened the 32nd Meeting of the Voorburg Group in New Delhi, India at 10:00 am, Monday October 23, 2017. The Host, the Ministry of Statistics and Program Implementation welcomed the delegates. The Ministry of Statistics and PI were represented by Dr. TCA Annant (Chief Statistician) and Rhaeev Lochan (Director General)

The Ministry created on October 15, 1999 with a merger of statistics and program implementation. The statistics side is the National Statistical Office.

Rhaeev Lochan, Director General for the Ministry, welcomed all of the delegates and noted that India was honored to host the Voorburg Group. He provided some history for the venue. In India, major hotels derived their names from ancient times. In the 1950s, the first Prime Minister called for building a hotel to house conferences. The Ashok Hotel is that venue. India iterated commitment to the policies and work of the Voorburg Group. The hosts expressed encouragement at seeing so many delegates from all over the world. The work of the group is particularly important to India because services represent more than 50% of Indian GDP. There are both domestic and global influences. The recent adoption of a GST will provide good input to statistics. India was also very interested in discussions surrounding the definition and measurement of e-commerce. E-commerce is a measurement problem but we need indicators to assist policy makers.

India also stressed the importance of partnerships between countries. The Voorburg Group is very important and the Group represents that needed cooperation.

Rhaeev Lochan noted that he was happy to see so many emerging issues on the agenda for this meeting. He reiterated his welcome to all and asked that we not only focus on the technical aspects of our work but to also enjoy the culture, diversity, and hospitality of India.

Mr. Lochan was followed by Dr. TCA Annant, Chief Statistician for the Ministry. He also welcomed all of the delegates and reiterated that it is a pleasure to host the Voorburg Group. India has a deep interest in the work of the group because of the importance of services in Indian GDP.

Services provide a unique problem for measurement. Services are heterogeneous and each area requires individual approaches to measure accurately. As services evolve and change, measurement is an ongoing challenge. India values all that we have learned in these meetings. All of us face the same problems: leaders want detailed information immediately; statistics are considered free; and therefore we all face budget problems. Despite the challenges, India has instituted a new survey of services enterprises and is working on expanding services prices. A significant portion of India's services economy takes place in small businesses or outside of the formal economy. That creates a significant measurement problem. The informal sector (Delhi Group) is also a very important topic of discussion.

India and the Ministry look forward to learning from the VG and offering details on their current work to help explain their economy.

The meeting continued with a presentation of the future work plan slides by the Bureau. The presenter noted the importance of a well-defined work plan going forward. After the presentation, introductions were made around the room. While not supported by an official count, the topics of e-commerce and quality indicators seem to be the areas of the agenda of most interest to the participants.

The Co-Chairs ran through the agenda and asked everyone to be familiar with the CDF and be ready to discuss the future agenda. Lastly, the Co-Chairs issued a thank you to our hosts in India, to all who worked between and in advance of this meeting, note takers, session leaders, etc. One of the most important inputs to the meeting is delegate discussion. Active participation is necessary for a successful meeting.

11:30-12:15	<p>Country Progress Reports – John Murphy - US Census</p> <p>Session: Sector Papers (Part 1)</p> <p>Session Leader: Mary Beth Garneau, Voorburg Group co-chair</p> <p>Activities auxiliary to financial service activities, except insurance and pension</p> <p>Funding - 66.1 –Andrew Baer</p>	<p>Country Progress Report PPT</p> <p>US Funding 66.1 Paper</p> <p>US Funding 66.1 PPT</p>
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Country progress reports

The first session of the 32nd meeting of the Voorburg Group opened with a brief overview of the progress reports from the delegates. The presentation noted that participation was good but not all countries present had provided the status update. On the positive side, several countries not in attendance did provide status updates. The presentation finished with a review of alternative data uses that were reported in the detailed status reports.

Activities auxiliary to financial service activities, except insurance and pension

The session continued with a presentation of the sector paper for Activities related to financial service activities, except insurance and pensions. The definition of dealing included in the presentation will be added to the VG glossary.

The session leader suggested that questions and discussion wait until the session on investment banking because there are many related issues. As a summary, the session leader noted that there are both industry and product issues in this ISIC class, basket updates are needed frequently, and other actions are needed based on the methodology chosen for measurement.

12:15-13:00	<p>Session: Cross Cutting Topic 1 – E-commerce.</p> <p>Session Leader: Erika Barrera (Chile)</p> <p>Update on international work related to measuring the digital economy Presentation of work within OECD Jennifer Ribarsky (OECD)</p>	<p>OECD Measuring the Digital Economy PPT</p>
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14:00-15:15	<p>Session: Cross Cutting Topic 1 – E-commerce, continued</p> <p>Presentation of country-specific issues and solutions in measurement of services stemming from the digital economy Mary Beth Garneau (Canada), John Murphy (US Census), Ramon Bravo (Mexico), Fabrizio Marinucci on behalf of Cristina Cecconi (Italy)</p>	<p>the OECD horizontal 'Going Digital' Project</p> <p>Canada E-commerce paper</p> <p>Canada E-commerce PPT</p> <p>Italy E commerce Paper</p> <p>Italy Ecommerce PPT</p> <p>Mexico E-commerce Paper</p> <p>Mexico E-Commerce PPT</p> <p>US E-Commerce Paper</p> <p>US E-commerce PPT</p>
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The session leader introduced the e-commerce session followed immediately by a Skype presentation by the OECD on the topic. This was followed by E-commerce presentations from Canada, the United States, Italy and Mexico.

The OECD provided an overview of the work being done by the OECD and the IMF on measuring the digital economy. The OECD indicated that this work was triggered by discussions in the economic measurement community about whether mismeasurement of e-commerce services was a factor in productivity slowdown. The presentation summarized that this “mismeasurement hypothesis” fails to recognize that GDP is a measure of production output and not consumer welfare.

The presentation included an overview of national differences in price deflators for IT investment goods. While these measures should be largely similar across the developed world due to international market competition and low global inflation, the measures indicated Australian and French prices declined significantly while British prices were rising. Price index methodology differences are a factor in this variation. Their research indicates, however, that if these differences were removed, GDP growth would change only minimally across all countries.

The increase of non-business durable goods as investment (e.g. personal cars used to offer ride sharing services) may lead to some small mismeasurement of productivity, it is not a factor in GDP measurement.

The OECD indicated that countries currently have varied practices for measuring digital intermediation services, such as platforms for ride-sharing, peer-to-peer lending, and reselling goods. Classification is inconsistent. Some countries measure output for these services on a gross basis, while others measure net margins. There is also difficulty for measuring the services of these digital intermediaries when they are resident abroad.

Questions and discussion from the delegates focused on the size of the target activities, the heterogeneous nature of the activities and problems with the actual classification of many activities in ISIC. The OECD noted the importance of where things are even if the current categories are confusing. Regardless of these problems, we need to be able to identify the activities and separate them out for analysis. Perhaps all intermediary platforms would be classified together. That would make separation easier but would disconnect the intermediary services from the underlying services that they support.

The delegates also noted that there are problems with statistics because most countries are using employer based sampling frames but many participants are self-employed, independent contractors. Part of the activity is missing. The delegates also focused on what the scope of e-commerce should be. One possible approach would be to limit the scope of e-commerce to wholesale trade and retail trade activities. The OECD noted that there are no final recommendations or guidance on the scope of e-commerce at this time. Roughly, the scope of e-commerce at this time is any good or service that is digitally ordered.

The issues related to non-employers generated additional discussion. One country noted that they are trying to include or add in data for accommodation services provided by owners of single family houses. It was noted that it probably is not easy to match that to accommodation services. Administrative data may provide some help but it is also important to develop and maintain relationships with the platforms that have the core data needed.

Delegates noted that understanding the impact of non-employers not included in business registers is a complex and growing problem. Attempts to understand the impact might require looking both at business tax data and household tax data to tease out relationships. Another possibility is to look to the expenditure side and the production approaches for different things. The OECD noted the reconciliation that goes on for expenditure, income, and production sides. A key question is how to get household production data. Labor force surveys might be a useful source of data. A framework to move forward would start with a clear definition of the broad typology and satellite account approach followed by an analysis of data gaps and potential sources of missing data. People on the front lines are very important – business statisticians are critical to the process.

The e-commerce session continued with reports from Mexico, Canada, Italy, and the United States on progress and practices in use when measuring e-commerce.

Mexico noted that private surveys indicate that e-commerce is growing at an annual rate of ~50% in Mexico. E-commerce data is currently only collected on the Annual Trade Survey (covering retail and wholesale only). In 2019, INEGI will start asking businesses across all sectors about their e-commerce activity. As part of this effort, a committee was formed to coordinate e-commerce measurement across prices, output, and national accounts. Mexico uses the OECD definition of e-commerce for their statistics.

For Italy, e-commerce is not currently included in short-term statistics but interest in this data is growing rapidly. Private surveys indicate annual growth rates of 30-40% until 2011, then slowing to about 10%. Leisure and tourism represent 75% of Italian e-commerce, with online gaming comprising a very large share. Online sales of goods and apparel is comparatively small in Italy.

An important factor to consider in creating price statistics for e-commerce is the widespread use of dynamic pricing, where prices change continuously based on supply and demand. Price discrimination between buyers is also greater with e-commerce.

The United States that the US currently uses a definition of e-commerce that was created in the 1990s and varies from the OECD definition. The US definition is broader, but paradoxically leads to lower levels of e-commerce reporting. This indicates potential confusion on the part of respondents.

In the trade area, the United States raised the question of whether e-commerce should include only orders made online and shipped door-to-door, or also orders made online and picked up in store. The presentation also noted a rising incidence of orders made in-store using electronic methods such as tablets and smartphones.

The United States summarized a recent meeting with representatives of large US retailers with an e-commerce presence. The group did not agree on a consensus definition of e-commerce. The US speculated that some of the reporting problems might be related to market metrics based on same store sales and leases based on a fixed charge plus a percentage of sales. This creates very different incentives when defining e-commerce within trade. The US also noted the impression that the industry participants were most interested in timely product data, regardless of sales channel.

The United States stressed the need for clarity about the concept of e-commerce, with a definition ideally tailored to how respondents understand this concept. The US posed two broad questions for discussion: 1) should the definition of e-commerce be the same across industries, when respondents may perceive it differently in different industries; and 2) Why are we measuring e-commerce – what questions are we trying to answer with the resulting statistics? Different questions might lead to difference measurement techniques and practices.

Canada's definition of e-commerce is consistent with the OECD, with a focus on how the product or service is ordered, not how it is delivered.

The presentation noted that in 2017 Canada will transition away from classifying Information sector firms as either Internet or traditional broadcasters/publishers. In the future, these firms will be classified based on their products and not based on the format in which they deliver it.

Canada recently added e-commerce questions to their periodic retail trade and services output surveys. Challenges for measuring e-commerce output include identifying where sales should be recorded. For example, some sales generated from websites with a .ca web address may be booked internationally. Canada proposed asking about the locations of customers to better understand international trade flows for electronic transactions.

Canada echoed Italy in noting that dynamic pricing and price discrimination were challenges for measuring e-commerce prices. She also noted challenges with frequent product change. However, electronic sales also provide greater opportunities for gathering non-survey data, either through web scraping, from digital intermediaries, or other means.

Discussion

One country asked if figures exist for comparing the increase of e-commerce with the decline in brick-and-mortar retail sales. The United States indicated that he was not aware of any such data produced

by national statistical agencies and that definitional inconsistency would make that hard. There is a bit of a conundrum because retail sales are going up and % of ecommerce sales as a % of total sales is increasing. That raises the question about jobs – how are they changing and where are they going? Output and prices alone might not be sufficient to answer some questions. Jobs, occupational statistics, and even a review of land use and real estate changes might be needed to shed light on some of the questions.

On the topic of why to even collect e-commerce statistics, several potential reasons were expressed by the participants. One country noted that policy makers would be very interested in e-commerce data to understand where tax revenues are being collected now, and where they are being lost. Another remarked that missing data for electronic sales should be imputed differently than brick and mortar sales since prices behave so differently for these types of transactions. Output data would be needed to provide weights for distinct imputation cells. Yet another reason offered by a participant is that productivity statisticians are very interested in getting more and better e-commerce data.

Finally, a country mentioned that there is research interest about whether e-commerce lowers the general price level for particular products. This is difficult to measure because we often don't know the quantities transacted at the different prices available online at different points in time.

The discussion then turned to classification, and whether it made sense to maintain separate industries for firms that primarily sold online. The United States noted that this is a very typical question for emerging activities, where they are identified separately until they become so common that it no longer makes sense to separate them. As far as use of the Internet is concerned, the VG was asked if that is just a different mode of delivery or is it really a different industry concept. One country has combined several previously separate Internet activities with their traditional counterparts. The US expressed interest in evaluating the experience and might consider following suit in later years.

A participant asked about the proper classification for the digital platforms and intermediaries. The United States indicated that there is no consistent rule in ISIC, sometimes they are classified in an existing agency class in ISIC and sometimes they are not. He noted that online real estate agents and stock brokers are combined with their traditional counterparts, while retailers are mostly separate. It is tricky to combine digital intermediation with other activities since these intermediation services should be measured on a net basis. There has been discussion and guidance on classification of intermediaries in service transactions at the UN Expert Group on Classification at the most recent meeting in New York. That paper should be consulted for guidance.

<p>15:45-16.15</p>	<p>Motion picture, video and television programme production, sound recording and music publishing activities (continued from 2016 session)– Rohan Draper (Sweden), John Murphy (US Census)</p>	<p>US Streaming Services Paper US Streaming services PPT</p>
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Motion Pictures and Streaming Session

This session consisted of a presentation of the issues paper by Sweden and a separate note on the classification of streaming services from the United States.

The area is not yet ready for a sector paper because of the limited experiences available from the participating countries. Problems were noted with product differentiation by firm size and pricing outputs over time. Each film is unique and not repeated. That presents a major problem with estimating prices for repeated transactions.

The classification of music streaming in publishing for ISIC generated lively discussion. One delegate noted that broadcasters don't own the material, they own the rights. For radio and TV broadcasting, they draw their frame from the regulatory authority and the streaming aren't included. Based on the business practices, it should be under the broadcasting umbrella, but we need to think about another structure. An online broadcasting model might work.

Another country noted that music streaming is in ISIC 5920 but their classification specialist said the boundaries between publishing and broadcasting disappear because of content and distribution. When a producer itself provides video on demand, it would be in 5911. The relation between 84322 and 5920 is already transposed in CPA and NACE, the product code is now 592036.

The United States offered the opinion that firm linkages between product and industry are often problematic. The business model and the payment of fees for use that apply to streaming music are consistent with broadcasting.

The VG was asked if they supported the change of classification from publishing to broadcasting. There were no objections raised but there were several additional comments from delegates. The first questioned the consistency with film and books. The change would be relatively consistent with those areas and additionally streaming appears to be more of a final consumption activity as opposed to the intermediate consumption characteristics of most publishing and distribution. It is consistent with the business model and with the users of data.

A final question was again in this case does it make sense to separate Internet from traditional methods in broadcasting? While this question was not directly answered, there appeared to be general agreement that at the very least, the activities should be in the same area of the classification.

16:15-17.30	Reports from task forces (part 1) Session leader: Jakob Kalko, Voorburg Group co-chair	Criteria review and future agenda PPT Cross cutting criteria
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	<p>Cross-cutting topics criteria –Jakob Kalko (Norway)</p> <p>Plan to ensure VG document remains relevant and up-to-date – John Murphy (US Census), Kat Pegler (UK)</p> <p>Future agenda: approach to developing the agenda and group input of ideas for the next two years</p> <p>Daily Wrap-up</p>
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Future Agenda Session

The session consisted of presentations from the Bureau on potential cross cutting issues and a proposal for criteria to use when reviewing existing materials in order to keep them up to date. The session included an opportunity for all of the delegates to enter their thoughts on flip charts around the room. The Bureau summarized the comments for a report out later in the week.

Tuesday

	<p>TECHNICAL SESSION III</p>	
9:00-10:15	<p>Session: Sector Papers (Part 2)</p> <p>Session Leader: Jakob Kalko, Voorburg Group co-chair</p> <p>Revisited Sector Paper – Telecommunications Christian Puchter (Austria), Dorothee Blang (Germany), Bonnie Murphy (US), Ildiko Holocsy (Hungary)</p>	<p>Austria Telecom PPT</p> <p>Norway Telecom PPT</p>
10.15-11.15	Small group discussion	
11:15-11:45	Group Photo & Coffee Break	
11.45	Conclude Telecommunications – report from group discussions	

Telecommunications

The session began with a recap and summary of Monday's outcomes. This was followed by a review of the day's agenda. The recap included a confirmation that discussion of the Sector Paper for ISIC 661 would be held with the closely related (issues wise) paper on investment banking. The recap of the of the E-commerce session focused on the fact that the e-commerce definition is not clearly set in concrete and there were many questions raised with no answers. The time allocated for the e-commerce discussion was extended but there is clearly a need to develop an issues paper on the topic. The recap ended with a confirmation that the Group recommended that ISIC/CPC consider music streaming outside of publishing based on the discussion and business models in place.

The work of Tuesday's session began with the presentation of the revised sector paper (incomplete) using the new content development framework (CDF) elements.

After the session leader presented the slides, the Group discussion began. One delegate asked the session leader if using regulatory data might help overcome the problems with pricing bundles in telecommunication. The session leader noted that bundles are not necessarily visible in European regulator data because the data includes minutes, texts, gigabytes of data, etc. Another delegate asked about the impact of consolidation in telecommunications. This includes within telecommunications but also across audio, video, news, and other areas. Another delegate responded that the product classification causes problems with this again because the offerings are often included in bundles rather than as separate line items.

The discussion turned to use of hedonics for quality change in telecommunications. The US indicated that they have limited use addressing changes in upload and download speeds but not a broader application of hedonics. In many ways, some quality adjustment is better than no quality adjustment.

Another delegate offered that their country has done quite a bit of work and is concerned about substitution across modes. Their telecom engineers say that data is the only real variable. They also identified problems when they thought they were getting B2B but in fact were getting B2All. CPI and SPPI were being used and there were conflicting trends. Another country also noted that they had a problem with B2B vs. B2All.

After the plenary discussion, small groups were created to discuss several themes that arose in the revisited sector paper. Each group addressed the following themes:

- How are you in practice dealing with rapid changes in this industry in your work. Explicit points to mentioned:
 - What pricing methods (SPPI) provide most flexibility for you within telecommunication, with the perspective from its nature (rapid changes)?
 - What factors determine your pricing strategy/methods for this industry?
- Is there any specific challenges within measurement of output in Telecommunication industry that you would like to share?

After the group discussion, each group reported out on their work.

One group noted that they were unable to account for rapid changes in the price indexes. Updates of the item baskets and weighting on a more frequent basis is needed. Good contact from regulator and/or major producers would also help. It is important to be aware of when regulators change specifications in data variables.

Model pricing is good for large producers and contract prices are ok for small units. Bundling is a problem – bundling service makes it hard to get the units or single services. It is also very hard to compare bundles across telecommunication service providers. Care must be taken to avoid double or even triple counting.

Most important is a common framework of data collection, uniform methodology, and regulators reporting the same thing. Regulator responsiveness to statistical needs is also helpful.

The next group expressed the challenge of defining the service unit. Using unlimited usage plans creates problem. Regulator says that volume is not relevant to the producers or regulator. Price indexes often use unit values and similar volume dependent approaches. Statisticians don't have input into what the regulators ask so it can be hard to use the data that is provided.

The other big challenge is bundles. Bundles rapidly change and are hard to quality adjust. Hedonic approaches would be useful but there is a lack of information.

All of the participants in the next group were using a unit value approach in practice. The group focused on issues related to changes in the denominator. The choice of month, customer, minutes, megabytes of data, etc. is very important. Timeliness is also a problem because regulator data is often not available on a timely basis. This leads to revisions. There is a profile method used in CPI that switches to the cheapest plan with the same content each month. No SPPI uses that method so the SPPI and CPI can move in different directions.

Secondary production is a problem. Some programs have included secondary activities in industry totals, other programs have created a second industry.

The last group also reported that they all used Unit Value, regulator and survey data. The main problem is the availability of data. Challenges include classification of establishments (own infrastructure or not), bundles, and change within the bundles. This group also noted a challenge identifying new product births quickly and the danger of not identifying product deaths quickly enough.

Summarizing these results, the session leader suggesting including a hedonic quality adjustment example in the revised sector paper as well as a discussion of the (potentially) declining relevance of volumes and the potential impact on unit value practices. Again, the basis for the unit value is key to continued results. Although countries reported that they are still getting unit value data from regulators, conditions might change forcing a change in methods for SPPIs. The revised sector paper will also include examples of questionnaires (or links to them) for reference.

One final discussion topic was raised concerning quality adjustment on the quality of service vs quality of use. In many ways, this can be seen as the same thing. Speed changes for upload and download satisfy quality of service and quality of use. SPPIs can often solicit cost information on the producers cost to change the speed but have no way to develop data on quality of use. Even the speed-based hedonic model uses some web scraped data to develop the regression but is not used until the producer informs the SPPI that a quality change occurred.

11.45-13.00	<p>Session: Investment Banking 64.9</p> <p>Session Leader: Marcus Friden (Sweden)</p> <p>Output and SPPI: Lucy Opsitnik (Canada), Andrew Baer (US Census)/Bonnie Murphy (US BLS)</p> <p>SPPI: Gopal Singh Negi and Anupam Mitra (India)</p> <p>Discussant: Kat Pegler (UK)</p>	<p>Sweden Investment Banking Session introduction PPT</p> <p>India Investment Banking PPT</p> <p>U.S. Investment Banking Paper</p> <p>US Investment Banking PPT</p> <p>Canada Investment Banking Paper</p> <p>Canada Investment Banking PPT</p> <p>Investment Banking discussant remarks UK.pptx</p>
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Investment Banking

The next session covered investment banking. Presentations were made by the United States, Canada, and India. Discussant remarks were provided by the ONS.

Several issues were raised during the presentations and discussion session. First, the current CPC is not disaggregated enough to properly measure the outputs of investment banking. In addition, there is an inconsistency in the NAICS/NAPCS content that creates problems. Several delegates noted that reporting errors regarding gross rather than net reporting and inclusion of unrealized gains and losses can skew output results.

In the area of proprietary trading gains and losses, the US PPI does not include them because they are not market transactions. The output data from the Census Bureau includes trading gains and losses but they are separately identified and can be excluded when developing price index weights. The US PPI uses a unit value for percentage fees approach to pricing transactions. The operating revenue of investment banks includes proprietary trading so it is included in output. However, there was general agreement that the results of proprietary trading should not be included in the SPPI.

Use of administrative or alternative data is an option but there are concerns about the required processing power due to the massive number of transactions. The US approach of using the nominal value of the bid/ask spread in the US was contrasted with the Canadian approach of looking at the bid/ask spread in relation to the total. Additional discussion focused on the need to maintain consistent risk/value relationships in repricing. One approach is to use a model price. Another approach being used focuses on measuring government securities as a proxy because the risk/value is fairly consistent over time. With bonds, the time to maturity is critical – long bonds have a bigger spread due to risk.

The discussion continued with the use of regulator data. India relies completely on regulator data for product pricing. They attempt to get the actual fee. The regulator has almost complete data and they advise that the using the largest transactions is most representative. A delegate asked how open and approachable the regulators are for providing data. Canada uses an existing contract and that presents

no problem at all. The US noted that they get very good cooperation from the regulator. On the output side, there are some problems with product level data because the NAPCS products do not always match closely with the internal practices. Often finding the proper contact can be a problem. Sometimes regulatory affairs gets the legal staff involved and a contact to government affairs might not.

The US reiterated that their prices are not average but rather realized fee for a model based transaction.

Based on the brokers presentation from Monday, there were a couple of additional questions for the group. First, does the Group want to recommend a change to treatment of brokers and dealers in ISIC and the CPC. There was not a consensus position. One position was that brokers and dealers should be together even if they are included outside of investment banking. The other position noted that brokers and dealers are measured differently and it might not make sense to put them together. Both sides of the discussion agreed that the industry uses the term broker/dealer.

Lastly, the discussion focused on the question of how data is being used. It is possible that getting the right industry for an establishment is not necessarily as important as getting the products measured and defined for use when deflating products in the accounts. The end result is that no recommendation for change to ISIC and CPC was offered.

15.00-15:30	<p>Session: Cross Cutting Topic 2 – Globalization Session Leader: Christian Stock (Austria)</p> <p>Presentation on Globalization Jennifer Ribarsky (OECD)</p>	<p>OECD Globalisation PPT</p>
15.30-16.00	Coffee Break	
16:00-17.00	<p>Poster session on Globalization</p> <p>Susanna Tåg, Lis-Lotta Sjoblom (Finland), Ruth Vizner (Israel), Olof Landberg (Sweden)</p>	<p>Finland globalization poster</p> <p>Israel globalisation poster</p> <p>Sweden Globalisation Poster</p>

Globalization

Tuesday continued with a globalization presentation from the OECD. Discussion included topics of problems with trade in services that differ from trade in goods. It is hard to get a good handle on what is actually occurring with trade in intellectual property products. Data confrontations also show some differences between Research and Development from Frascati-based surveys and trade in services surveys. Merchanting of services also causes problems when attempting to determine if the reports are on a gross basis or a net basis.

The OECD is very interested in any practical experience from member countries on obtaining data from nonresident platforms. Most domestic statistical programs cannot survey nonresident entities and that results in gaps for output and prices.

The Group noted that the issue of trade in services is coming up more frequently in the ongoing work of the Group. The OECD was not aware of any international bodies or other City Groups that were addressing the topic in a formal way. The Voorburg Group might be a useful source of expert guidance for price statisticians addressing international transactions in services.

Tuesday closed with the Globalization Poster Session.

Wednesday

9:00-10:15	<p>Conclude Session: Cross Cutting Topic 2 – Globalization</p> <p>Group Report Out</p> <p>Reports from task forces (part 2)</p> <p>Session leader: Mary Beth Garneau, Voorburg</p> <p>Group co-chair</p> <p>Website task force – web redesign and wiki site Lucy Opsitnik (Canada), Andrew Baer (US Census), John Jeremy (UK), Salvatore Filberti (Italy)</p> <p>VG Group input on agenda priorities: All</p>	<p>Website task force PPT</p> <p>Monday_part1_TF_meetinf_additions.pptx</p>
10:15-10:45	Coffee Break	

Globalization report out

Wednesday began with a report out from each of the poster presenters from Tuesday.

Sweden noted that there are classification problems because different countries see the same activity differently. Sweden also noted the difference between national territory and economic territory that result in different needs. A big problem in national data is platforms, contractors, and other outsource of work. There are different measurement challenges for contractors that can be compounded if they are considered to have different classifications across countries. Sweden also noted that there was a discussion of the most appropriate measures when looking at globalization. Perhaps Gross National Income could be more useful than Gross Domestic Product. Global value added might also be more enlightening. Overall, the conclusion was that globalization is a difficult and the issue of national boundaries creates additional problems.

Finland received feedback that their presentation was a good example how to approach enterprises and collect prices, in the situation, where the enterprise itself is not in a position to make pricing decisions. They reported out that a major problem is how to get global companies to provide necessary data. Perhaps an international effort for large multinational enterprises would solve some problems but it would raise unknown legal and confidentiality problems. Export prices for services are very important

but they are currently missing. Should we work more determinedly to also collect and publish import and export prices on SPPI? Further B2C exports are not within the scope of the CPI. We need to clarify the relationship of CPI and export SPPI on BtoC.

Like Sweden, Finland noted classification issues. The digital era has brought a lot of new products. Both national accounts' supply and use tables and price statistics as well as other source statistics have to define the products same way. Is a game developer classified to programming or software publishing? Where are the big platforms classified for things like car services and vacation rentals? These types of unanswered questions can cause problems when output, turnover, and prices are not treating them consistently.

Overall, Finland noted that it becomes very complex when international models appear. Globalization requires common and consistent guidelines, national cooperation, and international cooperation.

Israel reported out that export prices for service transactions in computer and IT services areas are very important domestically. Yet there continue to be problems with issues such as subcontracting of services and transfer prices. In the face of challenges, are charge out rates an acceptable measure? Israel also noted that there is question about pricing industries or products. Israel is leaning toward products but developing a frame for exported services is a challenge. There are more questions than answers. Finally, how should currency exchange rate changes be handled in export transactions?

The overall summary from the poster session is that more work is needed to develop common, consistent practices when considering measurement of global phenomena. Since classification questions were integral to most of the poster discussions, the Voorburg Group was provided with the United Nations Statistics Division classification hotline as an authoritative source of guidance. The classification hotline is at chl@un.org.

Website Task Force Report

The initial plan for reviewing the form and function of the Voorburg Group website was advanced due to the identification of critical security issues with the previous search facility. A new design had to be implemented immediately to conform to enterprise standards at the host agency. Statistics Canada presented slides on the changes to the website.

The task force noted that WebEx worked very well for the Website Task Force. The functionality of WebEx allowed developers to demonstrate prototypes and members could respond interactively. The Task Force suggested that a confluence workspace might also be useful.

The Voorburg Group will consider ways to raise awareness of the site and ways to highlight the considerable content that is available.

The session ended with delegates voting on priorities for the future agenda based on various topics posted throughout the room.

<p>10:45 – 12:30</p>	<p>TECHNICAL SESSION V</p> <p>Host Presentation</p> <ul style="list-style-type: none"> • NAD (CSO) on “Measurement of services in National Accounts”. • RBI on “Index of Service Production for Banking Sector in India.” • NSSO on “Measurement of Services through Survey”. • TRAI on “Measuring Telecommunication Services”. • DIPP on “Overview of Compilation of Business Service Price Index” 	<p>India Services in National Accounts Paper</p> <p>India Services in National Accounts PPT</p> <p>Index of Services Production for Banking Sector - India</p> <p>India - Business Services Price Index</p> <p>INDIA Services sector survey PPT</p> <p>P-TRAI Measuring Telecomm Services in India.ppt</p>
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Host country presentations

Wednesday morning continued with presentations from the Host Country on a variety of topics.

Gopal Negi provided an overview of compilation of service price indexes in India. Services account for over 50 percent of GDP. Currently, India’s wholesale price index only covers goods but services are being added. Railway transportation is a monopoly in India. All data comes from the government. There is a move from annual price changes to dynamic pricing in rail transport. India has six players in the passenger and freight air universe.

S. K. Mukhopadhyay of the National Sample Survey Office presented on the transformation of surveys on the service sector. The slides are included in the meeting materials.

Asit Kadayan presented an overview of telecommunications services in India. There are over 1.2 billion subscribers in 22 license service areas (LSAs). Spectrum is licensed by the LSAs. There are currently 12 mobile operators and they are growing at approximately 1.5% per quarter. Approximately 95% of territory in India is covered by wireless networks. There are roaming charges for service across the 22 LSAs.

There are a variety of different networks. 2G is predominant but 4G is growing. GSM is much larger than CDMA. 98% of wireless broadband is 512kbps or greater. Data revenue is about 35% of total revenue from subscribers.

Interconnect usage charge have been instituted. Network to network charges for termination, origination and carriage/transit charges are being applied. Interconnect charges are currently being reviewed to evaluate the actual costs, fully allocated cost and long run incremental costs models.

Data is collected for things like call drop, performance monitoring reports are collected (accurate billing, call center complaint resolution, refunds, etc.) Wireless data – minimum throughput, average throughput. India has no minimum requirement for throughput. However regulators track if operators are meeting advertised service levels. A crowd sourced approach is being used to gauge actual performance. These quality of service data are collected across all 22 LSAs and all modes 2G, 3G, 4G, etc. While operators are meeting the standards, a hot spot map was developed to identify local call drop problems. Coverage maps are also being developed using on the ground signal testing.

India continued with a presentation on measurement of the banking sector by Dr. Pradip Bhuyan. The ISP for banking is dominated by scheduled commercial banks. The ISP attempts to measure output that is sometimes not directly measurable. There are direct services and (indirectly measured) intermediary services. Currently there are several different reference rates being used for indirect services. There is no standard reference rate definition prescribed when using FISIM.

The final host day presentation addressed services in the national accounts. The slides are available in the meeting materials. The informal sector is very large in India and it is extremely hard to get good data on that part of the economy. The informal sector includes over 48% of gross value-added (GVA). Household data is only available every fifth year. For deflators, generally use CPIs but it would be better if there were specific SPPIs to use as deflators,

A delegate asked the NSSO about the procedures used when records are not available. For enterprises which exist in the business list, records are available. Unincorporated businesses often do not have records available. In that case, a detailed survey instrument is sent to elicit the activity. The reference period is usually the most recent calendar month rather than annual for fiscal year for enterprises with records available.

Another delegate asked if current period rates are available for telecom and whether a Fisher based index might be a good approach. India calculates a Laspeyres based index but uses the available information to do normal basket and weight updates on a scheduled basis.

A delegate asked why web scraping was not a good idea for India. India responded that with 48% of services accounted for in the informal sector, there is not a good way to know if web scraped data is representative of the total. The new GST separates out on-line transactions so that might be helpful but there really is not a good answer until additional research is done.

A delegate noted that India includes households as enterprises in the Economic Census. How are they treated from a tax standpoint – as personal tax or as company tax? India attempts to identify enterprises in each geographic region regardless of their form of organization. There is a high threshold for taxation on both personal and commercial tax. Many household enterprises do not reach the threshold. Once the thresholds are reached, official records are used. Subsistence economic activity is captured through household surveys and the economic census. Dr. TCA Annant added that households represent a very large part of gross value added. Household surveys are used every five years but India is trying to increase the frequency and do a bit more.

End session, Lunch and country day.

Thursday

10:00 – 12:15	<p>Session: Sector Engineering Services</p> <p>Session Leader: Kat Pegler (UK)</p> <p>Output challenges: Jakob Kalko (Norway), Ramon Bravo (Mexico)</p> <p>SPPI: Yann Leurs (France), Maja Dozet (Croatia), Fabrizio Marinucci on behalf of Cristina Cecconi (Italy), Moegi Inoue (Japan)</p> <p>Discussant: Susanna Tåg (Finland)</p>	<p>Norway Output engineering PPT</p> <p>Croatia Arch & Eng Activities paper</p> <p>Croatia Arch & Eng Activities PPT</p> <p>Italy Engineering Services Paper</p> <p>Italy Engineering Services PPT</p> <p>Japan-Engineering Services PPT</p> <p>France Engineering Services Paper</p> <p>Discussant remark Engineering Service.pptx</p>
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Session – Engineering and Architectural Services

After the prepared presentations, the Group entered into questions for the presenters. India began with a question regarding the challenge of accrual accounting. Norway responded that payment and provision of a service are not always temporally connected. Payment could be received in one period while the actual provision of the service takes place in a different period. India noted that while it is a big problem for engineering, all industries are required to use accrual accounting.

Another delegate asked if the split of production (intermediate/final) causes an issue with the output or with the national accounts? What part of the output is used for fixed capital formation? Norway did not find that to be a problem because fixed capital formation data comes from Structural Business Statistics (SBS) and much of the work goes into construction.

India asked if geological surveying is part of the actual output or part of this industry? It is often only done by governments. Norway responded that it is part of output but that the activity is dominated by the private sector rather than the government.

In the French presentation, it was noted that “pure” design with no development is classified in the specialized design industry. Price is an issue in an environment of low price bidding. Quality change is often not resulting in price changes. Unable to quality adjust these things – flat prices but constant quality pricing might be declining.

A delegate asked where in the aggregation structure are B2B, B2X, and B2All? France separates the turnover during the field visit. Then representative services are collected for each. Price indices are calculated and then summed up weighted. Indexes are published quarterly, 55 days after the reference period.

A delegate asked France about the quality of the split in B2B, B2X, and B2C. France noted that the Syntex series is more known and more used. Their field surveyors sometimes do question the initial splits when the data look wrong. The splits by type of customer are often a bit rough.

Overall questions and observations followed. One delegate noted that many engineering enterprises lease their engineers to the customers – kind of like a labor supply service. Are other countries faced with this problem? Also, different countries are using different price determining characteristics. Norway only sees the first problem in temporary employment. For the second part, Norway has a hard time getting employee characteristics for civil engineering projects so they are using a more product based approach. Croatia chooses the price determining characteristics by the actual type of project. US model pricing uses a truncated approach to employees on projects. There might be 15 or more engineers on a project but they only track the top five or so in the model pricing specification. That is a common practice across industries using this type of model specification approach. Croatia also uses a cutoff.

A delegate asked Japan how they get the actual margin and Croatia how they get the percentage fee when considering issues such as capital allocation. Japan gets the profit margin from the companies themselves. Once or twice a year they are updated. Croatia asks respondents for the project value and the percentage of that accounted for by architectural and engineering services. When the project extends longer than a year, the price remains unchanged. That may not be an optimal solution.

Another delegate asked the group broadly if they see internal work as a big problem. Many companies have their own engineering services department or similar.

A delegate posed a question about technological change. Should new technologies be reflected as quality or price changes? Norway noted that new technologies have different impacts depending on the pricing methodology being used. Norway tries not to use charge out rates in industries impacted by rapid replacement of workers.

The US asked if we are missing important aspects of the industry or technology change when small units are not included in samples? Probably. BIM is very expensive and small units really cannot afford the cost. For some countries and methods, annual price changes are the norm. Other countries and methods show that prices for civil engineering services change regularly.

13:15-14:30	<p>TECHNICAL SESSION VII</p> <p>Session: Cross-cutting Topic – Quality Indicators poster session</p> <p>Session leader: Maja Dozet (Croatia)</p> <p>Fabrizio Marinucci on behalf of Cristina Cecconi (Italy), Marcus Friden, Rohan Draper (Sweden), Mary Beth Garneau (Canada), Jutta Oertel (Germany), Bonnie Murphy (US BLS)</p>	<p>Canada - Performance Measure Grading Scheme for Prices - poster</p> <p>Canada - Performance Measure Grading Scheme - paper</p> <p>Germany - Quality control in a multiple-source mixed mode statistics - poster</p>
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15:00-16:30	<p>Group Report Out - Poster Session on Quality Indicators (postponed to Friday morning)</p> <p>Reports from Task Forces and VG bureau (Part 3)</p> <p>Session leader: Jakob Kalko Voorburg Group co-chair</p> <p>Content Development Framework – feedback on new CDF</p> <p>VG bureau report and follow up of the VG Strategic Plan</p> <p>2017 meeting feedback</p>	<p>Germany - Quality control in a multiple-source mixed mode statistics - paper</p> <p>Italy - Quality Indicators: a proposal to assess quality for SPPIs - poster</p> <p>Index Auditing Model in Sweden - presentation</p> <p>Quality Indicators Sweden - poster</p> <p>US-BLS - Variance estimates for price changes in the Producer Price Index - paper</p> <p>US-BLS Variance and Standard Error Estimates For U.S. PPI - poster</p> <p>Preliminary proposal for a new Content Development Framework</p> <p>VG Bureau Update and Progress on the Strategic Plan</p>
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Task Force report on CDF

The US used the new CDF framework for investment banking. The US noted that it was a good effort and it encouraged cooperation across output, prices, and the national accounts. The US suggested that the section for comparability of price and output data (2.4) move and not be repeated under both prices and output. The US also suggested changing the terminology from reselling services to intermediation in services transactions.

A delegate suggested that we be careful not to be too prescriptive. We need to emphasize flexibility – skip it if it doesn't apply and focus on the aspects that are important in the presentation.

Another delegate suggested that a section on trade in services be added if it is relevant to the industry. It could be a single section or separated out between prices and output sections. All agreed that there was some duplication in the current version that could be eliminated.

A delegate suggested that there be an explicit inclusion of current deflators in the national accounts. The section could note if SPPIs are being used or provide rationale if they are not.

The suggested changes will be incorporated into the CDF.

A presentation of progress toward the goals of the strategic plan finished the Thursday sessions.

9:00	Group Report Out - Poster Session on Quality Indicators (rescheduled from Thursday)	
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Quality Indicators Poster Session Summaries

The Friday session began with reports from the quality indicators poster session on Thursday.

Germany presented quality indicators of administrative data and survey. Delegate questions centered around the basic principles of the mixed data models, potential quality issues with administrative data, and burden reduction. Germany has a confidentiality agreement with the tax authority that governs their use of the data. Confidentiality is mandated by law. On the quality side, all enterprises are required to provide data but there are changes in periodicity of data. While the variables are reasonably consistent, there are problems matching data. Germany does not use enterprise data that cannot be matched. The administrative data is also subject to misclassifications, variation in the timing of transmission, and reference period. Adjustments are made for these issues in the SBS and the SPPI.

Overall, the STS program had reduced the sample size from 7% to 1% based on the use of administrative data. Administrative data is not the best quality for individual records, but when aggregated it is quite good.

Sweden presented an SPPI auditing method. The NSO tracks the quality adjustment method from a drop down menu in the processing system. Ratings and rankings of various methods are adjusted based on the industry being reviewed. The resulting initial ratings are used to identify risks and implement corrective action when necessary. Sweden provided an example to illustrate how this works. List prices are acceptable for personal services but might be ranked lower for more complex area such as consultancy.

Audits are conducted annually at the 2 digit level with drill down capability. The categories are not aggregated because low scores should be available for each item to evaluate if change is needed. Overall, the audits are used to take corrective actions that can range from corrections for specifications to additional analyst training.

The United States presented variance calculations for SPPIs. Only a handful of countries reported performing variance calculations. The US is using a bootstrap method that is adjusted for different

strata. That method was used because the SPPIs use a two state sampling process. The variances that were recently published for the first time are still under analysis. The variances are indicators of potential issues not absolute quality measures. The same processing system is used for production and variance calculation so the variances have lagged availability. Concentration can affect variance calculations so it is best not to compare across dissimilar industries.

Statistics Canada presented a Performance Measure Grading Scheme to evaluate producer price indexes index on key performance indicators to promote sound methodological practices and convey overall quality and reliability of published index numbers. Its components were drawn from the OECD Generic Statistical Business Process Model and Statistics Canada's six dimensions of quality. Assessing the quality of an index is multi-faceted because of the complexities of index numbers and calculations and the different components of index compilation. An index number is comprised of price relatives, weights and a variety of forms of treatments to these data. The quality of an index must be assessed on the individual parts as well as the whole. The grading scheme intends to capture this and provide a measure of quality for the entire index, as well as its individual components, starting from a qualitative conceptual assessment, to a quantitative processing perspective. The diversity of Canada's producer price index methods brings with it a complexity when developing a standard approach to assess data quality.

VG participants were asked for input and feedback on:

- any quality indicators that could be added;
- challenges in measuring variance;
- better measures of bias;
- how to weight and score the various indicators; and
- approaches to identify fitness for use of sub-indexes in the lower levels of the index aggregation structure

There are trade-offs to be made in programs that would affect the scores of the individual quality indicators. For example, a high score for timeliness could come at the expense of larger revisions. It was noted that weights would differ by use as one user might want data as early as possible while another may favour accuracy and fewer revisions. Instead of a grading scheme, the suite of indicators might work better as a dashboard to identify the strengths and weaknesses of an index, leaving management to make decisions based on key use of an index (deflation, monetary policy, forecasting, contract escalation, etc.).

Some NSOs who currently calculate variance are not publishing the measures. Statistics Canada's Price Measurement Advisory Committee noted that bias is more important than CVs since you could pick a biased sample that gives you very low variance.

One delegate cautioned about publishing a quality grade for fitness of use of the sub-indexes. Her NSO publishes a letter grade based on one dimension of quality. This can sometimes cause confusion among users since quality has many aspects that are hard to show in a single number.

Italy presented quality in the perception of the users. Many different quality indicators are available and the goal is to track them over time. An indicator is chosen, normalized, and then a simple arithmetic mean, a geometric mean, and a weighted arithmetic mean is produced. All three are used

because different characteristics and handled differently by each. The ideal choice is method where the distance between the value and the target is smallest.

9:20-10:15	<p>Session: 2018 meeting plan</p> <p>Session leader: Jakob Kalko, Voorburg Group co-chair</p> <p>VG Governance and Bureau Representation</p> <p>Future Agenda</p> <p>Assignment of Sector Papers</p> <p>Designation of Industries and Assignments for VG 2018</p> <p>Designation of Papers on Cross-cutting topics for VG 2018</p>	<p>Next meeting</p>
10:15-10:45	<p>Coffee Break</p>	
10:45 - 12:00	<p>Conclude VG 2017 meeting plan</p> <p>Designation of Assignments for VG 2018</p> <p>Meeting Arrangements for Next Year</p> <p>Closing Remarks</p>	<p>Meeting feedback.ppt</p> <p>IstatPresentaion_VGRome2018.ppt</p>

Meeting feedback

The Co-Chairs presented a brief summary of the rankings and results of the user feedback questionnaires that were circulated. This was followed by the future agenda and solicitation for volunteers for the next meeting and assignment of work.

Preliminary work assignments for meeting in 2018:

Investment banking sector paper-

Leader: Marcus Friden (Sweden)

Participants:

Andrew Baer (US Census) and Bonnie Murphy (US BLS)

Lucy Opsitnik (Canada)

Anupam Mitra and Gopal Singh Negi (India)

Revisited sector paper for telecommunications

Leader: Christian Puchter (Austria)

Participants:

Dorothee Blang (Germany)

Bonnie Murphy (US)

Idilko Holocsy (Hungary)

Jakob Kalko (Norway)

Revisited sector paper for architects and engineers

Leader: Kat Pegler (ONS)

Participants:

Yann Leurs (France)

Maja Dozet (Croatia)

Cristina Cecconi (Italy)

Moegi Inoue (Japan)

Ramon Bravo (Mexico)

Agnieszka Matulska-Bachura (Poland)

Jakob Kalko (Norway)

Issues paper for motion pictures

Leader: Barbro von Hofsten? / Rohan Draper? (Sweden)

2016 contributors:

Robbert de Ruijter (Netherlands)

Ruth Vizner (Israel)

Rohan Draper (Sweden)

Yann Leurs (France)

John Murphy (US Census)

Issues paper for e-commerce

Leader: Erika Barrera (Chile)

Participants:

Mary Beth Garneau (Canada)

John Murphy (US Census)

Ramon Bravo (Mexico)

Cristina Cecconi (Italy)

Mini-presentations for cloud computing (6311)

Session leader: Austria TBD

Output: Ramon Bravo, INEGI, Mexico; Sweden TBD; Andrew Baer, USA;

SPPI: Susana Tag, Finland; Renata Reehmio, Poland; Israel, TBD

Discussant: Dorothee Blang, Germany

Classification principles for intermediaries on services transactions – John Murphy, USA

Industry specific examples – China, TBD, Andrew Baer, USA

Other participants to be determined

Quality adjustment methods in a digital economy

Session leader – Kat Pegler, UK

Participants: Hedonics in telecom, Bonnie Murphy, USA,

Other participants to be determined

Export of Services

Session leader – Jakob Kalko, Norway

Output – Croatia (pending approval); Evli Sokman, Estonia; Canada, TBD

SPPi – Yann Leurs, INSEE France; Israel, TBD, UK, TBD

Discussant – Bureau will look for a globalization expert from the OECD, IMF, Expert Group or similar body

Paper and poster session on profiling and data collection from large and complex enterprises

Eveli Sokoman, Estonia; Sweden, TBD; Gopal Singh Negi, India; Italy, TBD

New and Innovative Methods

Bonnie Murphy, USA, Visualization tool;

Kat Pegler, UK with Lis-Lotta, Finland, Establishing a deflator group

Task Forces

VG website

Leader: Lucy Opsitnik (Canada)

Participants:

Andrew Baer (US Census)

John Jeremy (UK)

Salvatore Filberti (Italy)

CDF

Leader: Jakob Kalko (Norway)

Participants:

Dorothee Blang (Germany)

Erika Barrera (Chile)

Marcus Friden (Sweden)

John Murphy (US)

Wholesale Trade

Leader: TBD

Participants:

Bank of Japan TBD

Sweden TBD, pending

India TBD

The meeting closed with a presentation of gifts to the hosts and a presentation from Italy announcing that the next meeting of the Voorburg Group will take place in Rome, Italy on September 24-28, 2018.