Working Party on National Accounts

Summary Record: Meeting of the Working Party on National Accounts

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OECD Conference Centre

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8 November 2019, 09:30 am – 4:00 pm

Item 1. Opening statement
1. Peter van de Ven, Head of the National Accounts Division (OECD), gave a short opening address. He welcomed the participants to the meeting of the Working Party on National Accounts (WPNA), and thanked delegates for their willingness to share their experience and for their contributions to the various sessions. Subsequently, Peter handed over the meeting to the chair of the WPNA Bureau, Ann Lisbet Brathaug (Statistics Norway) to open the meeting. Ann Lisbet chaired Session 2 and 5, and Francisco Guillén Martín (INEGI, Mexico) Sessions 3 and 4.

Item 1.a. Adoption of the agenda
2. Delegates adopted the draft agenda of the meeting of the WPNA [SDD/CSSP/WPNA/A(2019)3].

Item 1.b. Adoption of the minutes of the 2018 WPNA meeting
3. The minutes of the 2018 meeting of the Working Party on National Accounts [SDD/CSSP/WPNA/M(2018)1] were approved without any further comments.

Item 2. Compiling data on non-financial assets
4. Ann Lisbet introduced the session on accounting for non-financial assets by explaining that one of the most important gaps in the compilation of national accounts is the accounting for and valuation of non-financial assets. Not only the monitoring of non-financial assets differs across countries, but often a significant share of non-financial wealth, especially on non-produced assets and valuables is simply missing.

5. David Wasshausen (Bureau of Economic Analysis, US) presented a paper on the measurement of infrastructure in BEA’s national economic accounts [SDD/CSSP/WPNA(2019)3]. He explained that infrastructure has changed as networks, connectivity, alternative-energy infrastructure, and intangible infrastructure have become increasingly important. For that reason, the BEA has examined a number of options to (re)define infrastructure from a national accounts standpoint. The starting point is the basic infrastructure (e.g. transportation and utilities) which they expanded to include additional economic activity, focusing on social and digital types of infrastructure. Examples of social infrastructure are public safety, education and health care. Within digital infrastructure they look at structures and equipment. Net stock measures are primarily derived on the basis of the perpetual inventory method using geometric depreciation rates, and relying on information from spending statistics for structures and the commodity flow approach for equipment. He showed some experimental results and explained that as next steps, they want to further assess the remaining data gaps and the need for improved prices and depreciation profiles. They also want to further explore industry dimensions and include more regional data.

6. Richard Heys (Office for National Statistics, UK) explained that the ONS is also doing a lot of work in this area, and that they would be very interested to collaborate with the BEA. Sanjiv Mahajan (Office for National Statistics, UK) added that it may be interesting to assess whether the definition of highways should be revised into the underlying components of ‘trunk road’ and the ‘surface’, wondering whether this would provide a different depreciation profile, thereby also distinguishing between repair and maintenance versus gross fixed capital formation. Sixto Muriel de la Riva (INE, Spain) asked whether David had any thoughts on how to determine the average service lives of dwellings and other buildings. David explained that they recognise a dozen types of buildings with different depreciation profiles. However, these are relatively old and probably need updating.

7. Matthew MacDonald (Statistics Canada) explained that they have also been working on this topic and that they are also facing challenges regarding the taxonomy. In the end they decided to come up with
a list of asset categories on the basis of which users could decide which ones were of most interest to them. Regarding service lives, they made some metrics by analysing the average service life of an asset category divided by its expected service life, which may provide an indication of its remaining useful service life. David acknowledged that this would be an interesting indicator for users and would be interested to know more. Matthew’s final comment was that, whereas there has been a lot of focus on the economic impact of infrastructure, there is an increasing interest in the assessment of the environmental and social impacts. Statistics Canada is looking into the possibility of making calculations in this area, although they still foresee a lot of challenges.

8. Henri Vargas Campos (Central Bank of Costa Rica) asked whether the US applies any specific adjustments in case of major natural disasters which may affect infrastructure. David answered that this is indeed the case and that these are captured in the accounts as other changes in the volume of assets. René Krippes (STATEC, Luxembourg) asked about the relation between maintenance, repairs and the average service life of an asset. David explained that this is indeed an important issue. Regular maintenance would not impact the service life and should therefore be recorded as intermediate consumption, whereas an improvement should be recorded as gross fixed capital formation as it changes the useful life of that asset. But it would indeed be interesting to explore how (the lack of) maintenance and repair affects the average service life.

9. Jim Tebrake (IMF) complemented the BEA with this work and asked whether they had to rely on new data sources for this project. If it is based on existing data, it would be a great encouragement for other countries to try to conduct similar calculations. David confirmed that they indeed mainly relied on existing data. They only introduced new estimates for maintenance and repairs, and for the regional breakdowns. Peter van de Ven (OECD) explained that there is a high policy interest in this type of data, also in the G20 context. For that reason, the OECD is planning to re-do a survey on infrastructure as an update of an exercise that was done a couple of years ago. He encouraged countries to participate in this exercise, even if the information can only be provided as experimental and/or for internal purposes only. David acknowledged that this would be an important step forward and that it would help in further increasing international comparability.

10. Stanimira Kosekova (European Central Bank) made a presentation on estimates of quarterly capital stocks for the euro area. She explained that there is a huge policy demand for this data, e.g. to measure wealth, as input for economic and monetary policy analyses, for productivity analyses, projections and forecasts, and for modelling house prices. She explained the methods and estimates compiled to derive net capital stocks and housing wealth, based on data available under the ESA 2010 Transmission Programme. She then showed some results, starting from the first quarter of 1999, focusing on net capital stocks per sector, by asset, and by type. She finished her presentation by showing an example of how this information is used, showing some graphs from the ECB’s household sector report.

11. David Wasshausen (Bureau of Economic Analysis, US) complemented the ECB with the work done and asked whether they have also looked at the industry allocation. He also asked whether the quarterly depreciation rates and retirement profiles are aligned with or derived from the annual rates and profiles. In that regard, he was also interested to know whether they managed to arrive at full consistency between annual and quarterly capital stocks. Stanimira explained that they do not estimate depreciation rates but use the available reported data. They apply a reverse PIM to obtain the components. In this process, they ensure that the quarterly data is fully consistent with the annual data by balancing the matrices and by balancing the estimates (thus preserving the data reported by countries).

12. Sanjiv Mahajan (Office for National Statistics, UK) asked whether the ECB had any insight in the comparability across countries regarding the use of service lives and depreciation rates. For example, dwellings used to have very long service lives, whereas this is less the case for more recently built dwellings. Sixto Muriel de la Riva (INE, Spain) added that the value of dwellings in the SNA excludes the value of the land underlying dwellings, but that the ESA provides the possibility of including the value of the land underlying dwellings in the value of these dwellings. He wondered whether this could also affect the comparability across countries. Stanimira acknowledged that comparability is an important issue. This
may relate to classifications and assumptions in the estimations, but also to differences in data sources. Metadata is very important in this regard. Peter van de Ven (OECD) added that harmonisation of assumptions should not be a goal in itself, as different types of assets may require different types of depreciation rates and service lives across sectors and across countries.

13. Benson Sim (UN) asked how they estimated the capital stock for the euro area, i.e. by estimating the capital stock of each individual member state or by summing up the GFCF series from different countries and then apply the PIM at the aggregated level. Stanimira explained that they derived the euro area stock estimates by adding up country level stock estimates. Emmanuel Manolikakis (Statistics Canada) observed that revaluations of non-financial assets seem much larger in the euro area than those of financial assets. In Canada, it is the opposite. He wondered whether that is a specific concern for policymakers. He also asked whether they use the residential real estate price index for deriving their revaluations. Stanimira explained that they use the real estate price index to compile the wealth estimates, but not for estimating revaluations. Ann Lisbet Brathaug (Statistics Norway) asked why users are particularly interested in capital stocks on a quarterly basis and not just on an annual basis. Stanimira explained that most of their forecasting models rely on quarterly data. Furthermore, estimating quarterly capital stocks is useful for researchers that are interested in potential output gap analysis.

14. Finally, Peter van de Ven (OECD) noted that the ECB is still discussing whether these results should be made publicly available, and he would strongly encourage them to do so. Stanimira acknowledged that this would indeed be very useful, but that this also depends on the consent of member states as their data is used as input for these results.

15. Belen Zinni (OECD) made a presentation on data gaps and inconsistencies in the national data on investments and capital stocks. She explained the importance of this data, for example for analysing growth and productivity analyses by industry, for analysing changes in the use of specific types of assets, for better monitoring public infrastructure, and for analysing the use and income derived from intellectual property products (IPPs). She also explained that there is a need for long series of gross fixed capital formation and capital stocks, in current prices and volumes, cross-classified by asset type and by industry. She then highlighted some data gaps and inconsistencies in the national data on investment matrices and capital stocks. Whereas data availability has improved over recent years, information (in particular on ICT and IPPs) is still missing for some countries. Furthermore, evidence continues to point to cross-country differences in “propensity to capitalise” (and prices), especially for software. She kindly asked countries to provide feedback on these issues and to assess whether they can help in solving some of these gaps and inconsistencies in the data.

16. Ann Lisbet Brathaug (Statistics Norway) responded that in Norway all this information is compiled only once, simultaneously in current and constant prices, so that if there are any inconsistencies, this is probably caused by an error in the transmission of the data. She will look into it. She also provided some explanations for negative gross fixed capital formation in Norway for some types of assets, for example related to the sale of an oil platform. René Krippes (STATEC, Luxembourg) confirmed that they also encountered negative values for some categories in some years. Belen confirmed that this can indeed be the case, but seems to be less likely for assets with short service lives. In this case, the question is whether the negative value is indeed correct or may have been caused by the way in which the tables are balanced. Sanjiv Mahajan (Office for National Statistics, UK) was surprised by some of the issues raised in the presentation for the UK and would check with colleagues in the office to provide further explanations. He also asked whether the OECD adjusts national data to make volume estimates comparable across countries, as not all countries may apply chain-linking in deriving their volume estimates. Peter van de Ven (OECD) explained that the OECD is indeed looking into this issue.

17. Ann Lisbet Brathaug (Statistics Norway) summarised the main takeaways from the three presentation and concluded the session.
**Item 3. Price and volume measurement of specific services**

18. Francisco Guillén Martín (INEGI, Mexico) introduced the session, explaining that economic growth is the single most important aggregate from the system of national accounts. Furthermore, productivity analysis is a high priority area in policy and research. All of this directly depends on the volume and price split of current price developments in goods and services. Different practices across countries may impact the international comparability of volume growth of GDP and underlying activities, and for that reason, this session focuses on the current practices in deflating goods and services for items that are impacted by the fast developments in digitalisation and for groups for which volume measurement was particularly challenging (e.g. non-market output).

19. Andreas Dollt (Eurostat) and Jorrit Zwijnenburg (OECD) presented an analysis of deflators of ‘digital’ goods and service. They explained work at both organisations on identifying possible difficulties with price and volume measurement for specific goods and services subject to digitalisation. For this purpose, they compared implicit deflators across countries, focusing on gross value added for the information and communication industry, and on gross fixed capital formation (GFCF) in computer hardware, software and communication equipment. The comparison showed some pronounced differences across countries, raising the question what might explain these differences. Possible explanations could be the use of different deflation methods (e.g. double versus single deflation), different composition of GFCF flows, differences in source data, impacts of exchange rate changes, and differences in quality adjustments. Countries are encouraged to look into the presented results and assess what might explain the differences observed for their country.

20. Richard Heys (Office for National Statistics, UK) mentioned that the ONS also conducted research in the area of deflators, comparing methodologies across countries and looking at biases that may result from (differences in) the methodologies applied. They would be happy to share these results. Sanjiv Mahajan (Office for National Statistics, UK) stressed the importance of metadata that may explain legitimate differences between countries. He added that the heterogeneity in output per industry is very important in analysing these differences. For that reason, it may be interesting to also look at differences at product level. He also mentioned other potential challenges in the compilation of price and volume measures that may explain differences between countries, e.g. deriving prices for (imported) licences, and the impact of balancing on the final results for the deflators, as compared to the original estimates. Francisco Guillén Martín (INEGI, Mexico) also stressed the importance of export and import prices in the estimation of deflators for ICT goods. David Wasshausen (Bureau of Economic Analysis, US) wondered whether differences in aggregation may also provide an explanation for the differences in results for the deflators, e.g. countries applying fixed weighted indexes versus countries applying chain-linked indexes.

21. Jim Tebrake (IMF) suggested that with regard to some new types of digital services, such as cloud computing, it would be interesting to look at the import part of the investment flows and whether potential structural changes regarding the centralisation of IT equipment across the globe may explain differences in deflators across countries. Ann Lisbet Brathaug (Statistics Norway) explained that in Norway ICT equipment is mostly imported, and that they use price information from PPIs, import prices, etc. She added that Denmark operates in more or less the same way, so that you would expect results to be rather similar, but this does not seem to be the case when looking at the presented results. She asked whether international organisations have access to comparable international trade data at a very granular level of detail, which would be of much use to data compilers to see if there are any issues in the source statistics that one should be aware of. Andreas responded that exploring import and export data would indeed be interesting, to see whether this already shows particular differences between countries. Regarding the differences between Denmark and Norway, he wondered whether this may also be explained by differences in the treatment of trade and transport margins and the impact of exchange rate changes. Jorrit added that there may indeed be issues regarding the comparability of the results and that more detailed information on the methodologies applied by countries would be very useful to enrich the analysis. For that reason, he would also be very interested in the information available from the UK research. It is also being considered to launch a simplified survey to obtain basic information on methods applied by countries, already taking into
account information that may be available from earlier surveys in this area. Peter van de Ven (OECD) added that it would indeed be useful to have, for example, more detailed information available on some specific aspects that cannot be easily derived from the data (e.g. the share of imports of the ICT products versus domestically produced).

22. Ana Aizcorbe (Bureau of Economic Analysis, US) made a presentation on work by the BEA to construct price deflators for taxi and ridesharing services in New York City. This research was conducted to obtain more experience with the use of alternative data sources and to assess measurement challenges related to outlet substitution (in relation to the growth of platform-enabled services) and dynamic pricing. The research showed that price indices constructed under different assumptions can lead to very different patterns. She explained that, in particular, excluding ridesharing from the sample shows appreciably faster price increases than an index that includes it. There is a potential substitution bias problem: indices that treat ridesharing and taxi services as the same service show slower price increases than those that treat them as different services.

23. Matthew MacDonald (Statistics Canada) noted the importance of how to deal with quality characteristics of the relevant services, as a lower price does not automatically imply a lower quality. Ana fully agreed with this. This is something to take into account in the next steps in the project. Richard Heys (Office for National Statistics, UK) complemented the BEA with the work done and noted that this research provides very important input for the Digital Supply and Use Tables (Digital SUTs). It also nicely shows that it may be relevant to distinguish between these new types of taxi services and traditional taxi services in compiling supply and use tables. Francisco Guillén Martín (INEGI, Mexico) mentioned that it would indeed be good to look at how to classify these service providers in the ISIC classification. Sanjiv Mahajan (Office for National Statistics, UK) noted that it also provides a nice example of the use of big data for measuring these types of activities. These data sources would probably also allow for other interesting analyses, e.g. analysing differences between fixed price fares versus metered fares for the same journey and looking at the impact of time of the day on the price of the service. In this regard, Andreas Dollt (Eurostat) asked how they determined the price in case of dynamic pricing. He also wondered whether the platform-provided services may need to be regarded as different types of products as they may have different characteristics (e.g. in terms of waiting time, processing of the transaction, etc.). Ana confirmed that the latter is indeed the case and also something they may want to take into account. However, this would also require more detailed information on the various characteristics of a taxi ride. Finally, Benson Sim (UNSD) mentioned that there are also different types of car service providers in New York. They may rely on a slightly different business model, but it would be interesting to include these in the analysis. Ana confirmed that this is something they need to further look into in the next steps of the project.

24. Amanda Seneviratne, (ABS) presented work by the ABS on the measurement of non-market output. The ABS considers three industries as predominantly non-market in nature: health care, education and training, and public administration. As these are very important industries (e.g. making up a large share of the economy, having a significant impact on government budget and possible key drivers of longer-term economic growth), the ABS recently started re-assessing the methodology for the measurement of these outputs. The aim is to improve the robustness and quality of non-market economic activity as captured in national accounts and productivity statistics. She informed that the ABS Economic Research Hub (building on experiences of other NSOs) started a research programme to build robust and sustainable indicators for measuring growth in non-market output volumes for health and education, which are not based on input costs, are appropriately weighted, and may capture changes in quality. They already conducted work in the area of output measures for hospital services, the results of which will be published in a paper in the course of 2020. In the next phase, they will start looking into other health care services and education for which she already listed some of the challenges.

25. Dennis Fixler (Bureau of Economic Analysis, US) asked whether the ABS has also done any work to develop price indices for health services adjusted for quality change. This is work that BEA engaged in as part of their health expenditure accounts by disease, and which will hugely affect the measures. Erich Strassner (Bureau of Economic Analysis, US) added that an alternative approach (described in Chapters
19 and 20 of the 2008 SNA) is focusing on quality adjusted labour inputs and capital services (which may be available from the KLEMS dataset) in applying the sum of costs approach. Richard Heys (Office for National Statistics, UK) explained that the ONS also did some work in this area, and he informed about an upcoming article in EURONA on their experiences in developing quality adjustments across public services in the areas of the health, education, social care and public order and safety. As there is still a lot of room for further improvements in this area, he would encourage countries to continue their work on this topic. Andreas Dollt (Eurostat) informed that a recent Eurostat Task Force was thinking along the same lines. It was also concluded that increasing levels of granularity for health care services will also help in capturing quality changes. Amanda Seneviratne (ABS) referred to the published paper for the technical questions. Furthermore, she would notify a research staff member who was involved in the research work to further look into these questions. Peter van de Ven (OECD) appreciated the fact that the ABS is sharing all of these experiences in research papers. He raised the question regarding the implementation of the results into the national accounts, i.e. will this take place once a method has been validated or only at the time of a benchmark revision. Amanda confirmed that the aim is to implement this methodology with the benchmark revision.

26. Francisco Guillén Martín (INEGI, Mexico) summarised the key points of the presentations, thanked the presenters, and closed this session.

Item 4. Satellite accounts: National practices and way forward

27. Francisco Guillén Martín (INEGI, Mexico) introduced the session, underlining the importance of accounting for illegal activities and explaining that this session includes recent research in compiling such estimates.

28. Catherine van Rompaey (Statistics Canada) presented work undertaken by Statistics Canada in preparation of the legalisation of cannabis in Canada. She explained that they started to build experimental estimates in a satellite account framework prior to the legalisation with results going back to 1961, separately tracking legal and illegal activity, and then asked users for feedback prior to the implementation. They implemented the time series throughout the integrated macroeconomic accounts programme at the time of legalisation in the fourth quarter of 2018. The main data sources are administrative data from Health Canada for the volume estimates for the legal market, StatsCannabis Crowdsourcing for information on legal and illegal pricing, and the National Cannabis Survey for additional information on the split between legal and illegal consumption. She explained that they encountered many communication challenges in compiling and publishing the results. For that reason, they created a Cannabis Statistics Hub to provide more information on the estimates. She finished the presentation by showing some of the results.

29. Sanjiv Mahajan (Office for National Statistics, UK) asked whether the prices on Cannabis also feed into the CPI. Catherine responded that the price for legal cannabis is tracked in the CPI, but not that for illegal cannabis. Sanjiv also mentioned that it would be interesting to look into distributional analyses. Catherine acknowledged that this would indeed be interesting, but that, whereas they have a lot of information on the respondents from the household and health surveys, including age groups and household types, they have no specific information on income distribution. Dylan Rassier (Bureau of Economic Analysis, US) mentioned that the BEA is undertaking similar work, so they are very interested to look at the work done by Statistics Canada. However, the situation in the US is a bit more complicated as the legality of cannabis use varies by state, which may lead to complexities in obtaining data and on deriving comparable regional results. In this regard, Catherine explained that they have maintained the split between legal and illegal cannabis use, as the data sources are separate. Francisco Guillén Martín (INEGI, Mexico) asked about the size of the activities as percentage of GDP. Catherine explained that it is relatively small, around 0.3% of GDP. Francisco also asked whether they have information on the financial flows that may be related to the illegal activities, e.g. money laundering. Catherine responded that there were no explicit adjustments to the financial accounts, as it was assumed that any financial flows related to the activities would already be captured.
30. Federico Sallusti (ISTAT, Italy) presented work that ISTAT has done on measuring the illicit drug market and the resulting illicit financial flows. He explained how ISTAT has mapped the supply chain of the illicit drugs market, starting from the manufacturing in the producing countries, via exports through transit countries, assisted by facilitators, to wholesale and finally retail trade in the consuming country. As Italy is regarded as a consumption country (mainly relying on imports for the supply), the aggregates were calculated using a demand-based approach. The main data sources concern the general population survey, European web survey on drugs by the European Monitoring Centre for Drugs and Drugs Addiction (EMCDDA) and the Trimbos Institute, data from seizures, international studies, and databases on international prices. The illicit drug market in turn generates illicit financial flows, which they also tried to identify. This is done on the basis of the framework developed by the UN Office on Drugs and Crime (UNODC), looking at the underlying income generating illegal activities.

31. Peter van de Ven (OECD) complimented Federico with the work done. From his experience at Statistics Netherlands, he remembered that it is often difficult to assess the international trade component and he asked how ISTAT dealt with this issue, e.g. assigning residency to the traders. Federico responded that they assume that all operators are resident in Italy. Jim Tebrake (IMF) asked how this information is used. As a follow-up question, Francisco Guillén Martín (INEGI, Mexico) asked how the data is disseminated. Federico responded that each year they publish a report on the non-observed economy (also available in English), which includes illegal activities, broken down into value added, import, export and final consumption by illegal substance.

32. Jim Tebrake (IMF) presented the IMF’s ongoing work on measuring illicit financial flows (IFFs) and the issues and challenges surrounding their measurement. He explained that the SNA is the ideal framework to measure IFFs, as it is a sequence of accounts that allows to present the origin of IFFs and how the value moves from one sector to another. Thus, an appropriate starting point would be to develop a supply and use table that clearly articulates and estimates illegal production and records it separately from legal production. This will provide estimates of legally earned income and illegally earned income. These estimates can then be processed through the whole sequence of accounts, relying on various assumptions. He acknowledged that it may only lead to upper and lower bound estimates given the need to model, but these can still be informative and ‘fit for use’.

33. Dylan Rassier (Bureau of Economic Analysis, US) noted that according to the research they have done on illegal activities, one of the main areas of importance is employee theft. He wondered whether that was also covered in the IMF work. Jim emphasised that this is one of the issues that may need to be added. Andreas Dollt (Eurostat) underlined the difficulties associated with accounting for money laundering, and whether this may lead to some form of double counting, as some of the amounts (or subsequent transactions) may already be covered in the accounts. Jim explained that money laundering often starts out as an illegal activity but gets reported as a legal activity. This needs to be borne in mind in assessing the related flows and whether or not specific estimations may be needed. Peter van de Ven (OECD) noted that IFFs are not only due to illegal production, but also to tax evasion, corruption and theft. It may be important to also include these in the framework. Jim acknowledged that these are indeed included. Peter also stressed the importance of countries including illegal activities in their accounts, as otherwise this may introduce inconsistencies, as the income and the use of this income from illegal activities will indeed be included. Jim fully agreed with that, explaining that a lot of the information related to illegal activities is indeed already included in the accounts, and that we need to bridge this information to assure consistency between the accounts.

34. Gary Dunnet (Statistics New Zealand) shared the challenge they are facing regarding the measurement of hidden activities related to the construction business, where many transactions may not be reported to tax authorities. Initially they thought that this would mainly relate to smaller contract jobs, but they were informed by their tax authorities that this may also involve big construction projects as these are usually broken down into many layers of smaller subcontracts. They now have to reassess the best approach to deal with this underreporting. Sanjiv Mahajan (Office for National Statistics, UK) noted that
in the EU they have done a lot of work to include various illegal activities, like smuggling, prostitution and illegal production of drugs. Sanjiv also noted VAT fraud, which can amount to billions of euros.

35. Francisco Guillén Martin (INEGI, Mexico) summarised the main takeaways from the presentations, thanked the presenters, and concluded the session.

**Item 5. Closing of the WPNA**

36. Ann-Lisbet Brathaug (Statistics Norway) and Peter van de Ven (OECD) thanked all people involved in the organisation of the WPNA meeting and all delegates who made presentations and participated in the discussions. They also announced that next year’s WPFS, joint meeting, and WPNA will be held on 2-6 November 2020.