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Implementation of the 2025 System of National Accounts in the Conference of European Statisticians member countries

Approach to System of National Accounts 2025 in Canada

Prepared by Canada

Summary

Statistics Canada is in the planning stage for the upcoming System of National Accounts, 2025 (2025 SNA) revision, assessing the level of readiness, priorities, impacts on the programmes and the changes that will be required for implementation. This paper discusses the strategy, challenges, plans and user consultations of Statistics Canada for the adoption of 2025 SNA. This is further illustrated with examples through work done in the area of digitalization.



I. Background

1. Gross domestic product (GDP), net worth and the balance of payments are key indicators used by policymakers, government officials, businesses, economists, and the public alike to help assess the economy's health and to make informed decisions. These data allow users to analyse the impact of monetary and fiscal policy, economic shocks, and tax, trade and spending plans.
2. In Canada, users trust macroeconomic accounts information to such an extent that they use it to establish payments and disbursements including government social programmes, revenue allocation from the harmonized sales tax (HST) and federal and provincial fiscal arrangements (Equalization). The revenue allocation is used to allocate the provincial component of the sales tax collected, distributing it back to provinces based on national accounts data. Likewise, the Equalization is the transfer programme of the Government of Canada created to address discrepancies between provinces and territories. Overall federal transfers to provinces are sizeable, reaching 96.4 billion Canadian dollars (CAD) for 2023–2024.
3. Overall, the pace which our economy is growing affects business conditions and investment decisions, as well as whether workers can find jobs.

II. Implementation theme

4. While the System of National Accounts, 2025 (2025 SNA) has not been formally endorsed, Canada has nonetheless been active in preparing for the upcoming update. Knowing the significant workload involved in an implementation, Statistics Canada has taken an approach of early involvement.
5. Canada provided feedback on 83 per cent of guidance notes related to the SNA update, including participation in testing/drafting of key items. Canada has also been involved in multiple task teams and sub-groups. This active participation was viewed as an opportunity to start preparations ahead of time and to get an early signal for potential difficulties or challenges.
6. Beyond participating in these official groups, Statistics Canada has done some internal work to help prepare for the 2025 SNA update. A first step involved the discussion of many elements of the changes from a conceptual point of view. Discussions would take place with staff from various areas of the macroeconomic accounts: supply and use table (SUT), GDP by income and expenditure, the balance of payments, financial and wealth accounts and government finance statistics (GFS). Different ideas were shared, reflecting the perspectives of respective programmes.
7. For instance, discussions took place on the matter of cryptocurrencies and whether they were financial, non-financial or produced assets. Similar conversations occurred regarding emissions permits, communications, and other topics. Often consensus was established but, in some cases, views were split.
8. This process also has the benefit of initiating thoughts on how we might possibly implement the new standards, assess the data available, consider different approaches and evaluate the state of readiness.
9. Prioritization is an ongoing exercise, but some parameters have been established to help prioritization.
10. The prioritization exercise looks at factors such as difficulty of implementation, source data availability, work already done in the area, the priorities of users, impact and coordination of implementation with other countries. For instance, the digitalization component is considered to be a high priority.
11. This categorization has been sensitized to users, where they have been able to provide their input into the prioritization process.

2025 System of National Accounts Readiness Assessment

<i>Category</i>	<i>Priority</i>	<i>Changes</i>	<i>Readiness</i>
Digitalization	High	Peripheral	High
Wellbeing	High	Peripheral and within GDP	Low
Globalization	Medium	Central	Medium
Communication	Medium-low	Peripheral	Medium
Financial Issues	High	Central	Medium
Informal Economy	Medium-low	Minor –classification changes	High
Islamic Finance	Low	N/A	N/A

12. Preparation is continuing with the expanded data acquisition and compilation improvement. For instance, Statistics Canada is in the process of acquiring detailed derivative data with an eye to be able to meet evolving requirements for a more comprehensive from-whom-to-whom matrix. Recent work has also been done to align the priorities with 2025 SNA work. This also facilitates the identification of potential barriers to implementation.

13. Another example involves work that was recently done to update our estimates of unpaid household work. The work had last been updated in the 1990s and required a review. An opportunity presented itself through partner funding which also signalled that this was a priority for the government of the day. This work involved incorporating the most recent time use survey as well as reviewing, updating and improving the methodology. For instance, assumptions were used in choosing occupations to estimate replacement cost value for the time. These were refined as some categories were no longer considered suitable. One big lesson learned from this project is the importance of having a high-quality time use survey and the challenges of attaining high response rates for a survey of this nature. Consequently, the SNA has been an active stakeholder for the time use survey and has subsequently been consulted extensively in the redesign of the survey.

14. Similarly, by considering the road ahead of us, we can also identify data gaps. For example, by participating in the working groups, we realized that we do not have data to support estimation of marketing assets and anticipated some challenges for natural capital.

15. We are currently in the process of evaluating our resource needs for this project. We do know that senior leaders have to date spent an estimate of 250 days reviewing guidance notes, having discussions, and participating in task teams.

16. Not only does this update require extensive work, but expertise is key. These changes have impacts that are complex and at times highly conceptual. While this is a great learning experience and opportunity to build expertise, a certain base expertise is required, and this can sometimes be in short supply. Strategies such as carving out the time for experts to work on development by reallocating production work, training and investment can help address these challenges.

III. Stakeholders

17. Stakeholders were consulted early in the process. Statistics Canada has an advisory committee which consists of major users from academia, the Bank of Canada and Finance Canada. They were provided an update on the 2025 SNA, including an overview of the updates, new elements being introduced, potential impacts and timelines. Further presentations are planned as development progresses.

18. Discussions have occurred with the central bank regarding our plans for the SNA update. Information will also be shared with our post-mortem group – a group of important users from other key government departments, commercial bank economists, consultants and private sector forecasters in order to share the priority issues and also to obtain their feedback.

19. Similarly, we will also consult on more transformative elements of GDP to ensure that these key users do not have concerns with the expanded definition of GDP. In addition to this, we plan to educate users on the concept of net domestic product, its definition and uses.

20. A lesson learned from previous updates is that we must always be mindful of the impact of the changes on our users. Many users require a long consistent time series and breaks in series can be very disruptive for them. In practical terms, having to adjust programmes to adapt to new or altered data series can prove to be costly and disruptive to users.

21. Presentations were also made internally to senior management across the agency to sensitize them to the upcoming changes, potential impacts, challenges and resources that will be required to see the work through.

22. Close collaboration is required in the realm of natural capital. Statistics Canada has a separate programme responsible for producing data related to the environment, including the Census of the Environment, physical flow and clean technology accounts. Statistics Canada has a long history of collaboration between this group and the macroeconomic accounts from when we implemented the valuation of natural capital into the financial and wealth accounts. The two teams collaborate on thematic accounts such as the Natural Resource Satellite Account and Clean Technology Satellite Account. This has nourished an environment of close collaboration and has brought about extensive participation of the environment group in the SNA update, maximizing the use of expertise.

23. Discussions also occurred with our counterparts responsible for social statistics. 2025 SNA aligns with topics that are traditionally the domain of our counterparts in social statistics, namely in labour, health and wellbeing. In the area of labour, for instance we have worked closely with the labour force survey team to ensure there is no duplication of work but a complementarity to our methods, concepts and approaches. Furthermore, we will have documentation that clearly outlines what is best used when.

24. As mentioned above, user requirements will figure prominently in the planning process. For instance, in the past the Bank of Canada has questioned the extent to which digitalization is fully reflected in GDP. In response to this, Statistics Canada put added attention on digital trade in services, expanded incorporation of tax information to estimate services, thereby allowing fuller coverage. Given the strength of a supply-use framework, we also prioritized the development of a digital SUT for Canada. Consequently, we are well positioned in the area of digitalization. A further description of this work is included in section IV.

25. Another important stakeholder is the international national accounts community. Statistics Canada regularly engages with other countries to share ideas, approaches and timelines with other countries. This will be an ongoing conversation which will hopefully bring synergies in terms of timing and data comparability but will also potentially bring about efficiencies as some methods can be shared across countries, reducing the research and development effort. This has been the case with the updated methodology to estimate the value of data, shared below.

IV. Prioritizing user requests: Digitalization

26. For a while, data on digitalization has been a priority for our users. Digital transactions are becoming an increasingly important part of the Canadian economy and the role and contribution of digitalization needs to be well understood. For that reason, it is considered to be a high priority. Two important components of the digitalization area include digital SUTs and estimation of data as a produced asset. Since the digital SUTs are just highlighting a component of economic activity and not expanding the boundary of GDP, they are considered peripheral in nature. In contrast, the value of data expands the boundary of the SNA.

27. Statistics Canada is already publishing digital SUTs and has published experimental estimates for the value of data. In both cases we have established data sources, experimented with methodologies and have sought feedback from users.

A. Digital Supply and Use Tables

28. Estimates for digital SUTs were published for 2017 to 2020. These estimates were derived within the Canadian supply and use framework following the same methods used by Statistics Canada for deriving other satellite accounts. The SUTs capture and present the production of products by domestic industries, imports of products as well as their use, either as inputs, final consumption, investment or exports. Creating the digital SUT involved disaggregating and recompiling the information from the SUTs into new categories in order to better understand an activity or a sector with respect to digital transactions.

29. A main goal of creating a separate digital SUT was not just to make the related novel digital economy transactions more visible (for policy and analytical reasons) but also to enhance the accuracy of its measurement. Current classifications do not make some of the related transactions visible and thus by making transactions with non-residents and through intermediary platforms more visible we ensure their proper measurement in the core SNA products as well.

30. The methodology for deriving the estimates of the digital economy in Canada consisted of the following three steps:

- Developing a product framework for the digital economy
- Identifying ‘full’ and ‘partial’ digital products, based on the above definition, within the Canadian SUTs and
- Estimating the economic value of digital economic activities, in terms of output, GDP and jobs.

31. Using this methodology, estimates of the digital economy were derived for Canada and the provinces and territories for 2017 to 2020. Canada has based its methodology on the OECD Handbook for Digital SUTs and continues to refine its methods and approaches.

32. The contribution of the digital economy to total GDP trended up from 5.2 per cent (\$104 billion CAD) in 2017 to 5.9 per cent (\$123 billion CAD) during the COVID-19 pandemic in 2020. The share of the sector in overall jobs followed a similar trend, increasing from 4.0 per cent of total jobs in 2017 to 5.0 per cent in 2020.

B. Value of data

33. Estimates of the value of data have also been produced in Canada. The first estimates were produced in 2019 and more recently data have been produced with a refined methodology, aligning with methods used in other countries. This estimation process benefitted from extensive collaboration with the US Bureau of Economic Analysis, who shared with Canada its methodology.

34. The estimation methodology employed for the capital investment flow was the sum of costs as this is the recommended method in absence of observable market transactions and for own-account production: the value is determined by how much it costs to produce that

capitalized asset. The estimate would include an estimate of labour costs, indirect costs, and capital services. The labour costs are calculated using the wage bill multiplied by the average time spent on these activities. Indirect costs cover additional costs to the entity and include resources such as finance and administration as well as electricity, building maintenance, etc. Capital services would represent the return on capital assets used in this productive activity.

35. The total real investment in data as a produced asset was estimated to be between \$10.4 billion CAD and \$17.5 billion CAD in 2021. For comparison purposes, in 2021 the total real investment in capital assets in Canada was \$459.7 billion CAD, while for intellectual property products (IPP) it was \$62.4 billion CAD. Therefore, based on this methodology, data as an asset could account for roughly 3 per cent of total capital investment or 22.4 per cent of investment in IPP in Canada.

36. Further information on the methodology used can be found in the following link: <https://iariw.org/wp-content/uploads/2023/10/Amegble-Bugge-Sinclair.pdf>.

V. Challenges

37. Some of the preparatory work we have done has highlighted implementation issues that will potentially arise with the full-scale implementation. Cost is a consideration. As mentioned above, the work to date has involved a non-negligible investment of time; a full implementation will require a commensurate investment in the macroeconomic accounts to ensure its success. As in many statistical agencies there are budget pressures, and it is essential that 2025 SNA be considered a priority and receive the necessary funding. Insufficient funding will inevitably prolong the implementation period and put the project's success at risk.

38. Even if the budget is secured, a certain level of expertise is required to carry out an update of this magnitude. Such expertise is in limited supply and there can be conflicts with the demands of ongoing production work. There is some merit to separating out the production and development activities to carve out the time for this work. Building expertise is a priority for the long-term success of the agency and is an essential component of project planning for 2025 SNA.

39. Even with this expertise, making substantial changes always brings a layer of complexity. Given the integrated nature of the macroeconomic accounts in Canada, implementing changes in one area of the macroeconomic accounts may have unintended consequences in other areas of the accounts and in the provincial and territorial economic accounts. For instance, during COVID, the vaccines were acquired by the federal government and then distributed to households by the provincial government. This simple activity impacted all the sectors, government accounts and the SUTs. Different approaches to treating this activity would have far reaching impacts on all the accounts. It could be a transfer in kind directly to households or a grant in kind to the provinces which would record intermediate consumption. This is just to demonstrate that decisions need to be coordinated by the various groups as there are impacts along the sequence of accounts. Similar complexities could arise with non-fungible tokens, emissions permits and other areas.

40. Another important consideration is time series. As mentioned above, users are a priority and they have provided the feedback that back casting and having a long time series is very important to them. Breaks in series make interpreting the data more difficult and a consistent long time series is required for modelling purposes. Consequently, the goal is to bring changes back in time to the beginning of the series; for instance, it would normally be 1981 for GDP by income and expenditure. This increases the workload and data availability can be an issue. We must also be sensitive to the impacts on specific users/uses such as the HST allocation and Equalization payments mentioned above given the magnitude of these programmes.

VI. Conclusion

41. While work has been underway for some time on 2025 SNA, many steps remain for Canada to attain implementation by 2030. We will continue to monitor for risks, integrate project planning and appropriate budgeting and adjust our approaches throughout the cycle. Communications with partners and staff working on 2025 SNA will evolve and continue to be a priority.
