

Latest Developments in the
Canadian Economic Accounts

Measuring the sharing economy in the Canadian Macroeconomic Accounts

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Executive Summary

The “sharing economy” (SE) and “sharing economy” digital platforms have received a lot of attention lately from policy makers, businesses, the media and the public. The concept of the sharing economy is not new—people have been bartering and sharing goods and services throughout human history. Enabled by technology and social trends, the sharing economy is transforming the ways in which economic agents can produce and consume goods and services.

The focus of this paper is to explore whether and how certain ‘sharing economy’ activities such as ride services and accommodation services that use digital platforms are captured (or not) in Canada’s system of macroeconomic accounts and key indicators like Gross Domestic Product, household consumption and imports and exports of services. Since the term “sharing economy” is so widely recognised and understood to represent activities, it is used in this paper.

What is the SE? The terms platform economy, peer economy, collaborative economy, collaborative consumption, on-demand services or co-creation have been used interchangeably to describe it. Although there is no one definition of the SE, research and analysis done in Canada and around the world has helped clarify many questions.

Three types of sharing economy digital platforms are considered as illustrative examples to examine if and how the SE is measured in the Canadian System Macroeconomic Accounts (CMEA). Tables summarize information on how the activity of units (digital platforms, hosts and guests) is classified and the extent to which it is likely captured in the CMEA.

Overall these three case studies highlight the complexity of measuring the SE in the CMEA. The primary challenges can be summarized as follows:

1. **Most sharing businesses have complex and non-traditional legal structures and business models.** This makes classifying the economic activity and agents very challenging. Sharing businesses perform an important facilitation process which must be appropriately accounted for within the CMEA. The facilitation activity is distinct from the actual goods or services exchanged between producers and consumers. As a result, even where the CMEA may capture the economic activity, it may not be classified appropriately.
2. **The majority of the economic agents providing the final services consumed are within the household sector.** At the present time, the CMEA does not explicitly record a household production account. Household production is mixed with corporate production and characterized as business activity. Since most of the producers are households engaging in non-traditional production activities, our traditional data sources are likely not picking up this activity.
3. **Large proportions of the economic activity are with economic agents in different countries.** Most sharing businesses are not incorporated or registered in Canada, thus they are classified as non-residents in the CMEA. As a result, their economic activity is out of scope for Statistics Canada’s business surveys.

This paper is a starting point for understanding the extent to which the SE is captured in the CMEA. However, further analysis is required to determine potential gaps or needed improvements. Some important next steps could include:

- Continue to profile and classify SE units and their economic activity.
- Identify specific industries where the SE may represent a significant or growing proportion of output (e.g. accommodation, transportation) and thus may require explicit measurement.
- Review data sources to determine if the economic activity of the SE is or can be captured with currently available surveys or administrative data.
- Examine developing a household production account to facilitate complete coverage of SE activity in the CMEA.
- Develop a satellite account to estimate the elements of the SE, determine the extent of coverage and provide users with an estimate of the size of the SE in Canada.

Introduction

The sharing economy (SE) and “sharing economy” digital platforms have received a lot of attention lately from policy makers, businesses, the media and the public. While the concept of the sharing economy is not new—people have been bartering and sharing goods and services throughout human history¹—the degree to which people are engaged in the sharing of goods and services has increased significantly over the last decade. Enabled by technology and social trends, the sharing economy is transforming the ways in which economic agents can produce and consume goods and services. However, with transformation also comes questions. For example, how and to what degree does the SE impact existing businesses, industries and the labour force in Canada? What effect do these new sharing businesses have on public safety? What is required from these producers and/or consumers from a regulation and tax compliance standpoint?

In order to understand and react to new and emerging phenomena, policy makers, businesses and individuals require information on which to make decisions. Statistics Canada is therefore endeavoring to understand the extent to which the SE is appropriately measured by our statistical products, particularly within the Canadian System of Macroeconomic Accounts (CMEA).

The focus of this paper is on certain market activities of the digital economy specifically related to peer to peer ride and accommodation services. Since the term “sharing economy” is widely recognised and understood to represent these activities, it is used in this paper.

This paper will examine how the SE and SE digital platforms are currently captured in the CMEA. It will explore how the SE fits within the current CMEA framework using examples of SE digital platforms offering accommodation, transportation and investment services. It will conclude with recommendations for possible future work that ensures sharing activities are properly accounted for in the CMEA.

The sharing economy

What is the SE? The terms platform economy, peer economy, collaborative economy, collaborative consumption, on-demand services or co-creation have been used interchangeably to describe it. Although there is no one definition of the SE, the research and analysis done in Canada and around the world has helped clarify many questions. Discussions around what

economic activity is taking place, who the participants are, and how it all impacts existing social and economic structures have promoted a broadly consistent understanding of the SE.

The ultimate goal of this paper is to review if and how the SE is being measured by the CMEA by looking at the economic activities and agents as well as the structures and processes of the SE. This highlights some of the most prominent and unique characteristics of the SE, namely that:

1. The market transactions are facilitated by technology. The increasing presence of digital platforms enable providers of goods and services to easily market their offerings and connect to consumers.
2. There is an increasing ability or choice to rent or borrow products rather than buying and owning them. Individuals are leveraging their existing assets to provide services in the market.
3. The market exchanges are often taking the form of person to person transactions. Individuals are increasingly offering services that have been traditionally provided by firms.

It is important to note that these three characteristics are not new. However, when bundled together and offered in a large volume, they represent an emerging area of economic activity that may not be fully captured in our current macroeconomic framework.

The term sharing economy is often criticised and may not reflect the types of transactions that we are interested in measuring. The criticism stems from the fact that the activities like those facilitated by private accommodation providers or transportation service providers are not truly “sharing”, but rather are carried out with an economic incentive. However, because the term SE is so widely understood to represent activities of digital platforms, it is used in this paper.

Sharing economy and the Canadian Macroeconomic Accounts

The Canadian Macroeconomic Accounts (CMEA) is designed to record all economic activity between economic agents residing in the economic territory of Canada.² Economic activity is measured by classifying and aggregating transactions to provide meaningful information about dimensions of the economy. Transactions with similar characteristics (e.g. production, consumption), activities of like economic agents (e.g. households, corporations, governments) as well as comparable products and industries are grouped together. Survey and administrative data provide detailed information on economic transactions and are the primary inputs into the CMEA. Various data sources provide different information depending on their intended scope of measurement (e.g. demand or supply). CMEA estimates undergo a rigorous process of analysis, adjustments and balancing in order to capture a comprehensive and integrated view of the Canadian economy.

In order to understand how the SE is captured in the CMEA we will look at a couple of well-known examples of sharing business activities: private accommodation services, transportation services and investment services. We will apply a basic understanding of these sharing companies, based on information publically available from the company websites and news articles, to the concepts, classifications and data sources of the CMEA.

Case 1: Accommodation services digital platforms

Private accommodation services are the short-term rental of houses, apartments or rooms within a residential property. New technology, through digital platforms, and new business models have facilitated the availability and rental of these private accommodation services by connecting providers of accommodation services (hosts) to consumers (guests). Various entities have emerged to facilitate these transactions by providing the digital platform within which to do this. There are three type of entities—the facilitator (digital platform), the host (provider of private accommodation) and the guest (consumer of private accommodation). The activities of each will be discussed below.

The accommodation services digital platforms provide and maintain the website and application for listing, searching and booking the accommodation rental. They verify personal information of hosts and collect and transfer payments from guests to hosts. They do not provide home insurance to hosts although they do offer a guarantee to hosts to compensate for damage or loss if a complaint cannot be resolved directly with the guest. In exchange for their professional services, these platforms charge a fee to hosts and an additional fee to guests. It is included on the invoice separately from the accommodation fee.

These SE digital platforms may be registered in one economic territory and operate in another economic territory. For example, the corporate structure may have the head office in country A, accounting activities in country B and website operations in country C. How these are captured and accounted for in the CMEA depends on the structure of the company.

Facilitators – Accommodation services digital platforms

If the facilitator (accommodation services digital platform) is a non-resident (a company registered outside Canada) and has transactions with Canadians, it will be considered a non-resident in the CMEA. Their activities with guests and hosts in Canada would be classified as imports of services in the CMEA. While these transactions are in scope, they are likely not fully captured or are misclassified in the CMEA. The transactions between digital platforms and hosts are likely not fully captured since hosts may not be captured or included in administrative or survey data used to compile the CMEA. As we will see in the subsequent section, the majority of hosts are individuals (treated as unincorporated businesses in the household sector). Additionally, the transaction between the facilitator and guests are likely misclassified, as guests may not accurately distinguish their expenditures between accommodation and the services provided by digital platforms.

If the accommodation services platform is a registered business in Canada, it would be in scope for Statistics Canada's business surveys. As a result, its activities as well as any foreign direct investment with its parent company should be captured in the CMEA.

Hosts

Hosts are providers of private accommodation services. They are responsible for setting prices and policies, such as rental duration and availability of their listed properties. They can also charge additional fees, such as a cleaning surcharge. Usually the terms of use of the platform stipulate that only properties solely used for lodging can be listed. Therefore businesses, for example, cannot rent out office space on such platforms. Additionally, although hosts can set the duration of the rental, research suggests that most accommodation rentals are short term (i.e. for vacations or business trips).

Based on available information hosts are primarily individuals who own property. However, some hosts may choose to register or even incorporate for legal or tax purposes. Nevertheless,

it is highly probable that large proportions of hosts do not register or incorporate their business activity and thus would be classified as unincorporated businesses in the household sector of the CMEA.

Hosts produce a market output of accommodation services. In addition to other intermediate inputs (electricity, heat, insurance etc.), they may import the services of digital platforms from facilitators located abroad.

While the output and intermediate consumption, including imports, by hosts should be included in the CMEA, it is likely that much of it is not fully captured. The challenge in capturing the activity of hosts rises from the fact that unincorporated businesses are not surveyed directly but rather their economic output is captured through tax data. It is reasonable to assume that large proportions of hosts may not report (fully or partially) this activity on their income taxes. Given the treatment of housing services in CMEA, it will be necessary to adjust the production of non-market services of households (owned accommodation estimates) for this secondary production of accommodation services to avoid double counting.

Guests

Guests consume both accommodation services (from hosts) as well as professional services (from the digital platform—facilitator). In addition to the accommodation rental price, guests are charged a guest service fee by the digital platform. The guest service fee is meant to cover the cost of listing and booking the accommodation rentals via the website or application, as well as facilitating the exchange of payment. Guests do not pay hosts directly for any of the accommodation service. All payments are made via the platform.

There can be different types of guests. Differentiating the type of guest is important when determining if and how the activity is captured in the CMEA. First, guests can be individuals or businesses (incorporated or unincorporated). This will determine how their consumption and production is classified in the CMEA. Another important distinction is between guests that are residents of Canada versus non-residents, as this can impact whether the activity is in scope for the CMEA. We will first look at the activities of resident guests, then explore if and how the CMEA captures the activity of non-resident guests.

All resident guests (individuals or businesses) can consume accommodation services in Canada or outside of Canada. Consumption in Canada would be classified as final household or intermediate consumption, (depending on whether the guest is an individual or a business) in the CMEA. This activity is likely fully captured in the CMEA through household expenditure and business surveys. Resident guests can also consume accommodation services outside of Canada. This is classified as an import of travel services. This activity is captured in the CMEA but may be overestimated. Current estimation methods are based on hotel prices and evidence suggests private accommodation rentals through platforms are less expensive than traditional hotels. Finally, resident guests consume services from platform establishments (i.e. the guest charge), which may be classified as imports. While the value of this consumption is captured it is likely embedded in household consumption or business intermediate expenditure on accommodation services. It is unlikely guests would separately report guest service fees charged by the platform establishments from accommodation services provided by the host.

Non-resident guests can also consume accommodation services in Canada or outside of Canada. However, any consumption by non-residents outside Canada is out of scope for the CMEA. The consumption of accommodation services in Canada by non-residents is classified as an export of travel services. While this activity should be captured in the CMEA, like the export of travel services for resident guests, this consumption may be overestimated. The overestimation arises from the fact that we derive these estimates using traditional hotel prices

which may be higher than private accommodation services rates. Finally, non-resident guests also consume services from digital platform establishments. However, since these transactions are between non-resident actors (as indicated previously platform establishments are non-residents), this activity is out of scope for the CMEA.

Conclusion

As a result of this initial review, we feel that the economic activities of peer to peer accommodation services facilitated by digital platform, hosts and guests may not be fully captured in the CMEA. One of the challenges is that the platform establishments providing services to guests and hosts may be non-residents and therefore are not covered on Statistics Canada’s business surveys. As a result, we rely on hosts and guests to report their transactions with digital platform establishments on available statistical information sources. However, since evidence suggests that the majority of hosts are individuals (unincorporated businesses in the household sector), we feel that much of the activity may not be captured. While the consumption of services by guests is probably captured in the CMEA, it is likely misclassified (as households may not distinguish between the expenditures for the accommodation and those for platform services), and possibly overestimated (since it’s based on traditional hotel prices). Table 1 below summarizes the information presented on the activity of the various accommodation services units (platform, hosts and guests), how they are classified and the extent to which they are likely captured in the CMEA.

Table 1
Summary of accommodation services digital platform

Unit	Classification in Canadian Macroeconomic Accounts (CMEA)	Activity	Classification in Canadian Macroeconomic Accounts (CMEA)	Captured in Canadian Macroeconomic Accounts (CMEA)
Facilitator (Accommodation services digital platform)	Non-resident	Market output – commercial services	Imports	Not fully because: - Non-residents not surveyed - Unincorporated business may not be captured in available administrative/survey data - Embedded in value of household consumption (i.e., guest fee)
	Resident non-financial corporation	Market output – commercial services	Production in business sector	Production and Foreign Direct Investment should be captured through survey and/or tax data
Hosts – Unincorporated	Unincorporated business in the household sector	1) Market output of accommodation services 2) Consumption of commercial services	1) Mixed income 2) Intermediate consumption - import, inputs	Not fully because: - Unincorporated business may not be captured in available administrative/survey data
Hosts - Incorporated	Non-financial corporations in the business sector	1) Market output of accommodation services 2) Consumption of commercial services	1) Output 2) Intermediate consumption – import, inputs	Yes
Guests – Individuals or Businesses		Consumption of accommodation services in Canada	Final consumption / intermediate consumption	Yes

Unit	Classification in Canadian Macroeconomic Accounts (CMEA)	Activity	Classification in Canadian Macroeconomic Accounts (CMEA)	Captured in Canadian Macroeconomic Accounts (CMEA)
	Households or Businesses (both unincorporated or incorporated)	Consumption of accommodation services outside Canada	Import of travel services	Yes. May be overestimated since it's based on standard hotel prices.
		Consumption of commercial services (platform guest charge)	Import	Yes. But likely not classified as import (guest fee embedded in household consumption).
	Non-residents	Consumption of accommodation services in Canada	Export of travel services	Yes. May be overestimated since it's based on standard hotel prices.
		Consumption of accommodation services outside Canada	Out of scope for CMEA	Out of scope for CMEA
		Consumption of commercial services (platform guest charge)		

Source: Statistics Canada, Measuring the Sharing Economy in the Canadian Macroeconomic Accounts, Catalogue no. [13-605-X](#).

Case 2: Transportation services digital platforms

A second case studied was peer to peer ride services. These digital platforms are a community marketplace for transportation services which connects drivers (individuals willing to provide transportation services) to riders (individuals or groups of consumers of transportation services). Such digital platforms clearly stipulate in their terms of use that they are not the provider of transportation services—they only facilitate the transaction. While the platforms set the fares for rides (based on a supply-demand model), they specify that drivers are not employees of the platform or its affiliates but rather are independent third party contractors agreeing to provide transportation services for the set fares. Based on this information, the platform is simply a provider of professional services whereby they maintain the platform for listing, searching and booking transportation services. They also validate the requirements of drivers and facilitate the transfer of funds from the riders to the drivers. In exchange for their professional services, the digital platform keeps a proportion of the transaction fee. Our research suggests this fee is taken from the charge paid to the driver, and no separate fee is specifically charged to the rider.

Facilitators – Transportation services digital platforms

If a transportation services digital platform is a non-resident (a company registered outside Canada) having transactions with Canadians, it will be classified as a non-resident and their facilitation activity would be classified as imports of services in the CMEA. However, since non-resident establishments are not in scope for Statistics Canada business surveys, we are dependent on the drivers to report this activity.

If the transportation services digital platform is a registered business in Canada it would be in scope for Statistics Canada's business surveys. As a result, its activities (output) as well as any foreign direct investment from its parent company should be captured in the CMEA.

Drivers

Drivers must be over the age of 18, have a valid driver's licence as well as a registered and insured vehicle in the jurisdiction where they offer transportation services. While drivers can incorporate as a business (for various legal or tax purposes), research suggests that the majority of drivers are individuals and would be classified as unincorporated businesses in the household sector according to national accounts conventions.

Drivers, regardless of whether they are individuals (unincorporated business in the household sector) or incorporated businesses, produce market output of transportation services. In addition to other intermediate inputs (gas, insurance etc.) they consume, maybe as an import, the professional services of the facilitator delivered via the digital platform. While the output and intermediate consumption, including imports, by drivers is in scope for measurement in the CMEA, it is likely that much of it is not fully captured. The challenge in capturing the activity of drivers arises from the fact that most of their economic output is captured through tax data. It is reasonable to assume that large proportions of unincorporated activity may not be reported on tax files.

Riders

Riders are households or businesses who consume transportation services. They register accounts on the digital platform application including valid credit card information for payment. After they have registered, riders can view and request offerings of transportation services from drivers. Upon completion of the transportation service, payment is taken automatically from the rider (using the registered credit card on the account). All payments are made automatically through the platform's payment facilitation process.

As with the case of peer to peer accommodation services guests, there can be different types of riders. They can be individual consumers or businesses (incorporated or unincorporated), as well as Canadian residents or non-residents. It is important to distinguish between the types of riders when determining the extent to which and how the activity is captured in the CMEA.

All riders that are residents of Canada (individuals or businesses) can consume transportation services in Canada or outside of Canada. Consumption in Canada is classified as final household or intermediate consumption (depending on whether the rider is an individual consumer or a business) in the CMEA. This activity should be fully captured in the CMEA through household expenditure and business surveys. Resident riders can also consume transportation services outside Canada. This is classified as an import of travel services. This activity is likely captured in the CMEA, but may be overestimated. This is because current estimation methods are based on traditional taxi fares and there is evidence to suggest that platform rates are less expensive.

As for riders who are non-resident, they can also consume transportation services in Canada or outside Canada. However, any consumption by non-residents outside the country is out of scope for the CMEA. The consumption of transportation services in Canada by non-residents is classified as an export of travel services. While this activity is likely captured in the CMEA, it may be overestimated. The overestimation arises from the fact that estimates are derived using traditional taxi fares which may be higher than platform rates.

Conclusion

Although the economic activity of the transportation services digital platform, drivers and riders is in scope for measurement in the CMEA, there are likely data gaps. The challenges with measurement are similar to peer to peer accommodation services, where available survey and administrative sources may not adequately capture the activity. Measuring the activity of riders

may also need improvement, as imports and exports of travel services are currently based on traditional taxi fares which may differ from transportation services digital platform rates. Table 2 below summarizes how the activities of transportation services digital platforms currently fit within the CMEA.

Table 2
Summary of transportation service digital platform

Unit	Classification in Canadian Macroeconomic Accounts (CMEA)	Activity	Classification in Canadian Macroeconomic Accounts (CMEA)	Captured in Canadian Macroeconomic Accounts (CMEA)
Facilitator (Transportation services digital platform)	Non-resident	Market output - commercial services	Imports	Not fully because: - Non-residents not surveyed - Unincorporated business may not be captured in available administrative/survey data
	Resident Non-financial corporation	Market output - commercial services	Production in business sector	Production and Foreign Direct Investment should be captured through survey and/or tax data
Drivers – Unincorporated	Unincorporated business in the household sector	1) Market output of transportation services 2) Consumption of commercial services	1) Mixed income 2) Intermediate consumption – import, inputs	Not fully because: - Unincorporated business may not be captured in available administrative/survey data - Could be disconnect between stock of assets and services provided by unincorporated businesses. CFC for unincorporated businesses reliant on reporting.
Drivers - Incorporated	Non-financial corporations in the business sector	1) Market output of transportation services 2) Consumption of commercial services	1) Production 2) Intermediate consumption – import, inputs	Yes
Riders – Individuals or Businesses	Households or Businesses (both unincorporated or incorporated)	Consumption of transportation services in Canada	Final consumption / intermediate consumption	Yes
		Consumption of transportation services outside Canada	Import of travel services	Yes. May be overestimated because based on traditional taxi prices.
	Non-residents	Consumption of transportation services in Canada	Export of travel services	Yes. May be overestimated because based on traditional taxi prices.
		Consumption of transportation services outside Canada	Out of scope for CMEA	Out of scope for CMEA

Source: Statistics Canada, Measuring the Sharing Economy in the Canadian Macroeconomic Accounts, Catalogue no. [13-605-X](#).

Case 3: Investment services or crowdfunding digital platforms

Crowdfunding digital platforms are global online communities for raising funds to support various projects and initiatives. Through their websites and applications, crowdfunding digital

platforms connect owners of capital (backers) to individuals or groups of people who need capital for a specific project (creators).

Facilitators – Crowdfunding digital platforms

Crowdfunding digital platforms provide creators access to their website to advertise their project idea and attract backers. However they are not party in any contract. Creating an account or listing a project on the crowdfunding digital platform website is free. Once a project is successfully funded, the crowdfunding platform collects fees from the creator. Funds pledged by backers are collected by third party credit card or payments processors which also charge a fee.

A facilitator may be a non-resident and as such their output is classified as imports. As non-residents, they are not in scope for Statistics Canada business surveys and thus their activity can only be captured through the reporting of project creators. Facilitators hosting crowdfunding digital platforms may be Canadian, in which case the activity would be a registered business in Canada and would be in scope for Statistics Canada's business surveys. As a result, its activities as well as any foreign direct investment with its parent company should be captured in the CMEA.

Project creators

Creators post project ideas on the crowdfunding website and invite owners of capital (backers) to invest in their project. Some projects include the stipulation that backers will receive something in return. Typically, the backers receive the finished product (perhaps a book or video game created with the raised funds). Each project idea must have a set fundraising target which determines if and when the project will commence. If an idea does not reach its fundraising target by a set date, the project may not be successful. Creators of successfully funded projects must complete the project according to the terms set out in the contract. Once a creator has done so, they've satisfied their obligation to their backers.

The economic activity of creators is dependent on the type of project. Research suggests there are three main types of projects created through crowdfunding platforms.

1. **Reward/product.** Creators offer something in exchange for funding (e.g. promotion item or the product being created).
2. **Equity.** Creators offer some equity or financial stake in the project in exchange for funding.
3. **Donation.** Creators offer nothing in exchange for funding.

In addition to undertaking these activities, creators also consume crowdfunding platform fees, and any payments processor fees which may be imports.

Some could argue that large proportions of the crowdfunding activity between creators and backers is simply consumption: backers are pre-ordering a product that they want to see produced. If this is the case, the consumption should be captured in the CMEA. The activity would be classified as either final household consumption or intermediate consumption in the CMEA, depending on whether the backers are households or businesses and output of the industry producing the good (e.g. the video gaming industry). As well, business investment in households or other businesses via crowdfunding is likely minimal given that businesses typically rely on traditional venues for investment such as banks, stock markets etc.

Project backers

Anyone who funds a project (fully or in part) is considered a backer and has entered into a legal contract with the creator. They can be individuals or businesses and can be residents or non-residents.

Table 3 below summarizes how crowdfunding fits within the CMEA framework.

Table 3
Summary of crowdfunding digital platform

Unit	Classification in Canadian Macroeconomic Accounts (CMEA)	Activity	Classification in Canadian Macroeconomic Accounts (CMEA)	Captured in Canadian Macroeconomic Accounts (CMEA)
Facilitator (Crowdfunding digital platform)	Non-resident	Market output - other financial services	Imports	Not fully because: - Non-residents not surveyed, - Unincorporated business may not be captured in available administrative/survey data
	Resident Non-financial corporation	Market output - other financial services	Production in business sector	Production and Foreign Direct Investment should be captured through survey and/or tax data
Creators – Unincorporated	Unincorporated business in the household sector	1) Produce market output of various goods and services- if giving reward /product 2) Consumption of other financial services 3) Receive investment income 4) Receive of transfers	1) Mixed income 2) Intermediate consumption – import, input 3) Asset/liability in financial account 4) Inter or intra sectoral transfer depending on provider) in the current/capital account	Not fully because: - Non-residents not surveyed - Unincorporated business may not be captured in available administrative/survey data - CMEA does not currently record transfers from household sector to business sector
Creators - Incorporated	Non-financial corporations in the business sector	1) Produce market output of various goods and services 2) Consumption of other financial services 3) Receive investment income 4) Receive of transfers	1) Production 2) Intermediate consumption – import 3) Asset/liability in financial account 4) Inter or intra sectoral transfer depending on provider) in the current/capital account	Yes. However: - CMEA does not currently record transfers from household sector to business sector
Backers – Individuals or Businesses	Households or businesses (unincorporated or incorporated)	Consumption of goods and services (result of project in Canada)	Final or intermediate consumption	Yes
		Consumption of goods and services (result of project outside Canada)	Import of good or service	Yes
		Provide financing (with expected return i.e. equity/dividends)	Asset/liability in financial account	Yes. May be underestimated because dependent on project creator reporting.
		Provide financing (with no expected return)	Inter or intra sectoral transfer in current/capital account	Yes when business to business. CMEA does not currently record transfers from household to business.

Unit	Classification in Canadian Macroeconomic Accounts (CMEA)	Activity	Classification in Canadian Macroeconomic Accounts (CMEA)	Captured in Canadian Macroeconomic Accounts (CMEA)
	Non-residents	Consumption of goods and services (result of project in Canada)	Export of good or service	Yes. May be underestimated because dependent on project creator reporting.
		Consumption of goods and services (result of project outside Canada)	Out of scope for CMEA	Out of scope for CMEA
		Provide financing (with expected return i.e. equity/dividends)	Asset/liability in financial account	Yes. May be underestimated because dependent on project creator reporting.
		Provide financing (with no expected return)	Inter or intra sectoral transfer in current/capital account	Yes. May be underestimated because dependent on project creator reporting.

Source: Statistics Canada, Measuring the Sharing Economy in the Canadian Macroeconomic Accounts, Catalogue no. 13-605-X.

Summary

Overall, these three case studies highlight the complexity involved with measuring the SE in the CMEA. The primary challenges of measuring the SE are:

1. Most sharing businesses have complex and non-traditional legal structures and business models.
 - a. No two sharing businesses have the same legal structure or business model. This makes classifying the economic activity and agents very challenging.
 - b. The sharing businesses examined perform a facilitation process which is in scope for measurement in the CMEA. The facilitation activity is distinct from the actual goods or services exchanged between producers and consumers. As a result, even where the CMEA may capture the economic activity, it may be misclassified (e.g. full value of final consumption expenditures reported by households classified as accommodation services and no proportion allocated as professional services of the sharing establishment).
2. The majority of the economic agents providing the final services consumed are in the household sector.
 - a. Since most producers are households engaging in non-traditional market production activities, available data sources are likely not picking up this activity.
 - b. One exception may be when owner-occupiers rent their residences for accommodation purposes. Since owner-occupied dwellings are considered assets in the CMEA, the flow of housing services to the owner-occupier are accounted for. The value of this service flow could be adjusted to capture the accommodation services provided when the residence is rented.
 - c. It is likely that for households who produce sharing services, the income generated from their production may not be captured by administrative or survey data. The non-observed nature of some of the production adds further challenges to measuring the economic activities of the SE.
3. Large proportions of the economic activity are between economic agents of different countries.
 - a. Sharing businesses are likely not incorporated or registered in Canada, thus they are classified as non-residents in the CMEA. As a result, their economic activity

is out of scope for Statistics Canada's business surveys and we must therefore rely on household and other types of surveys to capture the consumption of their services by the other economic agents. For example, in theory our international travel survey should capture imports of travel services but there is likely a misallocation. The activity should be allocated to both imports of travel services and imports of commercial services (reflecting the facilitation services).

- b. It is difficult to track and classify transactions as most occur via digital and online platforms and the economic territory is difficult to determine.

Next steps

This paper is a starting point to understand the extent to which the SE and SE digital platforms are captured in the CMEA. Further research is required to determine the extent of gaps. Some important next steps could include:

- continuing to profile and classify companies and economic activity of the SE;
- identifying select industries where the SE may represent significant proportions of output (e.g. accommodation, transportation) and warrant explicit measurement;
- review data sources to determine if economic activity of the SE is captured with current surveys or administrative data.

In addition to researching and investigating how the SE can be best measured in the CMEA, it is recommended that a satellite account be developed to estimate the various dimensions of the SE. A satellite account is an ideal mechanism to determine the extent of coverage and estimate the size of the SE in Canada. It could also distinguish between market and non-market activity, outside of the standard measurement framework.

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Notes

1. Richardson, 2013.
2. The economic territory of Canada refers to the legal territory. It includes enclaves abroad (such as embassies and military bases) and excludes foreign enclaves within Canada.