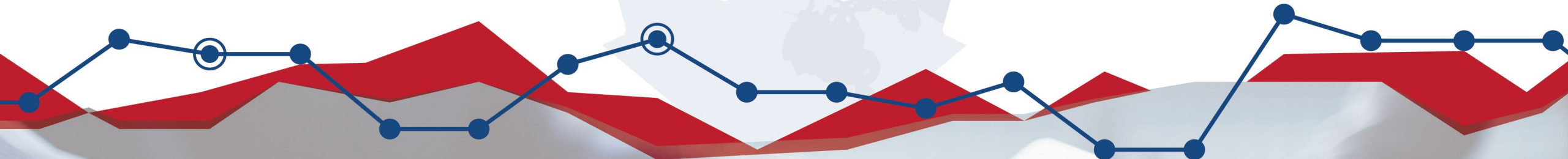


# Environmental Tax Account, 2010 – 2018

Projected release: April 2023



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# Overview

- What does Statistics Canada's Environmental Tax Account measure?
- Data sources
  - Supply and Use tables
  - Canadian Government Finance Statistics
- Tax account concepts
- Method summary
- ETA data table
- Conceptual issues
- Moving forward
- G7 and OECD Country Comparison

# What does Statistics Canada's Environmental Tax Account measure?



- Quantifies aggregate federal, provincial and territorial receipts received by governments for environmental taxes.
- Revenue is classified as outlined by OECD methodology; by environmental tax base categories annually, by household and business expenditure.
- Environmental taxes as defined by and structured under OECD methodological guidelines on environmentally-related tax revenue accounts in line with the System of Environmental Economic Accounting Central Framework (SEEA-CF 2012) and the SNA:

|                                     |
|-------------------------------------|
| <b>Environmental tax account</b>    |
| Energy taxes, total                 |
| Energy and fuel for transport taxes |
| Carbon taxes                        |
| Emission trading permits            |
| Transportation taxes                |
| Pollution taxes                     |
| Natural resource taxes              |

# What does Statistics Canada's Environmental Tax Account measure?

- Initial time series will cover reference period 2010 to 2018.
- Will disseminate by geographic region (by Canadian provinces and territories) and by economic sector (Industry, Households, Government and Non-profit and by Gross Fixed Capital Formation).
- At this time, the ETA is not:
  - disseminating by industry; 6-digit IOIC-level industry breakdown is planned for next dissemination of reference years 2010 to 2019 (late November 2023);
  - a full expression of the SEEA-CF proposition; the focus is on taxes on products and production. Income taxes, capital taxes, and other current taxes are not included (future work being considered).

# Data sources

- All estimates in the ETA are derived from Statistics Canada data.
- For extraction of environmentally-related tax revenue:
  - Supply and Use Tables Margins & Taxes tables
  - Canadian Government Finance Statistics
- For extraction of other tax revenue (non-environmentally related):
  - Supply and Use Tables Use-Purchaser tables; taxes on products and taxes on production
- Advantages of using SUT data:
  - Possibility to disaggregate data by industries and households, amenable to input-output and other industry-level analyses.
- Canada currently reports environmental taxes to the OECD and to IMF at a high level disaggregation without geographical or sector-level breakdown.



# Supply and Use tables

- Canada produces annual SUTs at the national and sub-national provincial/territorial levels.
- Canadian SUTs:
  - +490 goods and services
  - +270 final use industry breakdown
  - 19 different tax types

- The SUTs permit a thorough review of commodities in the Canadian economy in order to best identify environmental tax bases that will become in-scope for the ETA.

| Use, federal gas tax |  |   |   |                                |                                  |
|----------------------|--|---|---|--------------------------------|----------------------------------|
| British Columbia     |  | Input   |   |                                |                                  |
| Thousands of dollars |  |   |   |                                |                                  |
|                      |  | Crop production (except cannabis, greenhouse, nursery and floriculture) | Greenhouse, nursery and floriculture production (except cannabis) | Cannabis production (licensed) | Cannabis production (unlicensed) |
|                      |  | BS111A00  | BS1114A0  | BS111CL0                       | BS111CU0                         |
| Products             | Industries                               |   |   |                                |                                  |
| ENE211105            | Conventional crude oil                   | [Redacted]  |   |                                |                                  |
| ENE211106            | Synthetic crude oil                      |   |   |                                |                                  |
| ENE211102            | Natural gas                              |   |   |                                |                                  |
| ENE211103            | Natural gas liquids and related products |   |   |                                |                                  |
| ENE211104            | Crude and diluted bitumen                |   |   |                                |                                  |
| ENE212100            | Coal                                     |   |   |                                |                                  |
| MPG212210            | Iron ores and concentrates               |   |   |                                |                                  |
| MPG212220            | Gold and silver ores and concentrates    |   |   |                                |                                  |
| MPG212231            | Copper ores and concentrates             |   |   |                                |                                  |

# Supply and Use tables

- The SNA states that an environmental tax is a tax whose tax base is a physical unit (or a proxy of it) of something that has a proven, specific, negative impact on the environment.
- Advantage SUTs - provides a robust data source for identifying environmentally-related tax bases for the ETA.
- However, some taxes are embedded into a single tax in the SUTs such as the taxes on **products** and **production**.
- For in-scope taxes falling under these categories, data is extracted from the Canadian Government Finance Statistics.

**Table 2. Use table at purchasers' prices**  
**British Columbia**  
 Thousands of dollars

|                 |                                   | Input   |  |   |   |
|-----------------|-----------------------------------|---|--|---|---|
|                 |                                   | Crop production (except cannabis, greenhouse, nursery and floriculture production) BS111A00 | Greenhouse, nursery and floriculture production (except cannabis) BS1114A0 | Cannabis production (licensed) BS111CL0 | Cannabis production (unlicensed) BS111CU0 |
| <i>Products</i> |                                   |   |  |   |   |
| PRM100000       | Taxes on products                 | [Redacted Data]   |  |   |   |
| PRM200000       | Subsidies on products             |   |  |   |   |
| GVA             | Gross value-added at basic prices |   |  |   |   |
| PRM300000       | Subsidies on production           |   |  |   |   |
| PRM400000       | Taxes on production               |   |  |   |   |
| PRM500000       | Wages and salaries                |   |  |   |   |
| PRM600000       | Employers' social contribution    |   |  |   |   |
| PRM700000       | Gross mixed income                |   |  |   |   |
| PRM800000       | Gross operating surplus           |   |  |   |   |
| TOTAL           | Total                             |   |  |   |   |

# Canadian Government Finance Statistics

- Statistics Canada has adopted the GFS 2001 (internationally accepted accrual accounting framework) as the Canadian Government Finance Statistics (CGFS).
- Certain estimates in the ETA are solely extracted from the CGFS. This is because they are embedded into a general line within the SUTS (taxes on production) where the CGFS itemizes them:
  - Emission trading permits;
  - Personal motor vehicle registration revenues;
  - Commercial motor vehicle registration revenues;
  - Hunting and fishing licenses at the provincial level.
- Data are available nationally and by region.



# Tax account concepts

## In-scope taxes:

- Federal air transportation tax (FATT)
- Federal custom import duties (FCID)
- Federal excise tax (FEX)
- Federal gas tax (FGS)
- Provincial environment tax (PENV)
- Provincial gas tax (PGS)
- (-Federal environment tax for 2019) (FENV)

## Not in-scope taxes:

- Retail sales taxes (ex: VAT and goods and services taxes GST, PST, HST).
- Amusement taxes and other taxes not linked to environmental protection.

## Dissemination of environmental taxes

### Environmental Tax Base Categories:

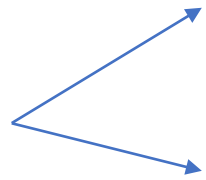
|                                     |  |
|-------------------------------------|--|
| Energy and fuel for transport taxes | Energy products for transport or stationary purposes, including fuel or transport.   |
| Carbon tax                          | Energy-related GHG emissions/carbon content.   |
| Emission trading permits            | Proceeds from permit schemes   |
| Transportation taxes                | Motor vehicle production, trade or sale, registration or use, vehicle insurance, road, congestion taxes and other means of transport excluding fuel for transport. |
| Pollution taxes                     | Non-energy related carbon content, CO2 emissions and other GHGs not related to energy, waste, noise, radiation, effluents to water, amongst others.                |
| Natural resources taxes             | Resource extraction, abstraction and harvesting excluding oil and natural gas, including exploration activity.   |

# Method summary

In practice, (the environmental tax) definition is applied by looking at all the various taxes levied in a country and making an assessment regarding whether the tax base in each circumstance is something that has a negative environmental impact. – SEEA CF 2012

## Step 1 Assess in-scope taxes amount

Using Margins & Taxes SUT, per region and per industry, household



Assess each commodity taxes for which OECD guidance says there are environmental taxes

Sum the amount of "env taxes" per commodity

| SUCC_code | SUCC_name | Tax Type applicable to the commodity. |                                  |
|-----------|-----------|---------------------------------------|----------------------------------|
| MPG326201 | Tires     | FCID                                  | Import tax                       |
| MPG326201 | Tires     | FST                                   | Federal GST                      |
| MPG326201 | Tires     | PENV                                  | Provincial environmental tax     |
| MPG326201 | Tires     | PHST                                  | Provincial sales tax             |
| MPG326201 | Tires     | PST                                   | Provincial sales tax (B.C. only) |

Ex: Tires env. taxes = \$3,000,000

## Step 2 Assign the commodity amount into the right Tax Base Category

Classifying that tax sum into the right dissemination OECD Environmental Tax Base Category.

Consult OECD guidelines and IAD tax experts.

| Environmental Tax Base Category     |
|-------------------------------------|
| Tax base: Tires                     |
| Total, Energy Taxes                 |
| Energy and fuel for transport taxes |
| Carbon taxes                        |
| Emission trading permits            |
| Transportation taxes                |
| <b>Pollution taxes</b>              |
| Natural resources taxes             |

IAD: The environmental component of taxes on tires is related to the waste aspect as a source of pollution after the useful life of the product.

OECD: Pollution category includes "waste management" sub-category to include individual products such as batteries, tires or lubricants.

# ETA data table

Environmental Tax Account, \$CAD

By geography.

By economic sector:

- Total, sectors
- Industry
- Households
- Gov. and non-profit institutions
- Gross fixed capital formation

|  |                |
|--|----------------|
| <b>Total, environmental taxes</b>              | Total, sectors |
| Total, Energy taxes                            | Total, sectors |
| Energy and fuel for transport                  | Total, sectors |
| Carbon tax                                     | Total, sectors |
| Emission trading permits                       | Total, sectors |
| Transportation                                 | Total, sectors |
| Pollution                                      | Total, sectors |
| Natural resources                              | Total, sectors |
| <b>Total, taxes on products and production</b> | Total, sectors |
| Share of environmental taxes                   | Total, sectors |

| Environmental tax                       | 2010    | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---------|------|------|------|------|------|------|------|------|
|   | Dollars |      |      |      |      |      |      |      |      |
| Total, environmental taxes              |         |      |      |      |      |      |      |      |      |
| Total, energy taxes                     |         |      |      |      |      |      |      |      |      |
| Energy and fuel for transport taxes     |         |      |      |      |      |      |      |      |      |
| Carbon tax                              |         |      |      |      |      |      |      |      |      |
| Emission trading permits                |         |      |      |      |      |      |      |      |      |
| Transportation taxes                    |         |      |      |      |      |      |      |      |      |
| Pollution taxes                         |         |      |      |      |      |      |      |      |      |
| Natural resources taxes                 |         |      |      |      |      |      |      |      |      |
| Total, taxes on products and production |         |      |      |      |      |      |      |      |      |
|   | Percent |      |      |      |      |      |      |      |      |
| Share of environmental taxes            |         |      |      |      |      |      |      |      |      |

# Conceptual issues

- **Issue 1) Received feedback from stakeholders with regards to the industry-level breakdown:**
  - SUT uses proxies based on expenditure patterns for this breakdown;
  - Challenge is to arrive at better ways to disaggregate, especially the carbon taxes;
  - Stakeholders want to better understand the methodology and concur on the proxy being used.
- **Issue 2) Treatment of new tax:**
  - The Canadian federal government, through the the federal carbon pollution pricing system, introduced the Greenhouse Gas Pollution Pricing Act, which came into force in 2018:
  - The GGPPA has two parts:
    - a regulatory charge on fossil fuel like gasoline and natural gas (the federal fuel charge);
    - a regulatory trading, performance-based system for industry – the federal Output-Based Pricing System (OBPS ).
  - Treatment of these new tax types is under review for reference years 2019 on;
  - As a result, the first ETA will be disseminated with reference years 2010-2018 only (without the industry-level detailed breakdown).

# Conceptual issues

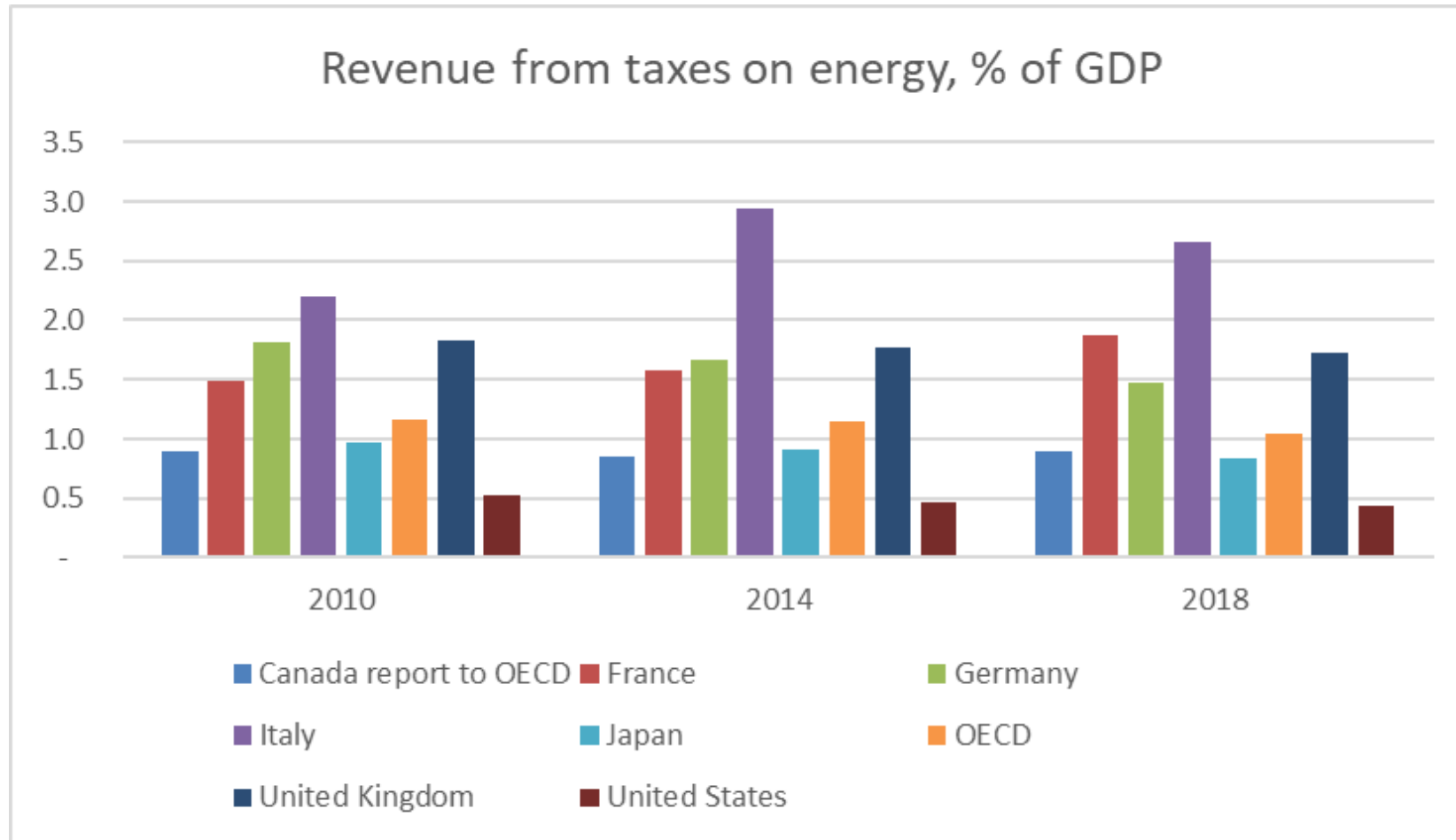
- **Issue 3) Carbon tax data methodology:**
  - Carbon taxes are derived from a ratio applied to specific in-scope commodities within the SUTs where a portion of the revenue is allocated to recycling fees and another to carbon taxes;
  - Stakeholders want to better understand this methodology.
- **Issue 4) Exemptions:**
  - Stakeholders want to better understand how tax-exempt industries are represented within the SUT tax files.



# Moving forward

- Dissemination cycle:
  - Annual release (mid-November) after the SUT release including projected RY+1;
  - Upcoming November/December 2023: expand time series to include 2019 (2019 final, 2020 preliminary and 2021 preliminary).
- Account expansion:
  - Inclusion of income taxes, capital taxes, and other current taxes.
  - Industry-level disaggregation.
- Work with internal and external stakeholders to review:
  - Treatment of estimates under the Greenhouse Gas Pollution Pricing Act for reference years 2019 on under the new FENV tax (Margins & Taxes tables);
  - Disaggregation of industry-level data.
- Continued work with OECD guidelines reflecting on conceptual foundations and items that may deserve to be further developed:
  - Greater focus on taxes levied on greenhouse gas (GHG) emissions;
  - Inclusion of certain land taxes, taxes on oil and natural gas extraction, resource rent taxes, and elevated value-added taxes levied on environmentally related tax bases.

# G7 and OECD country comparison



Questions or comments:

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