STATISTICS

GFSM 2014 update

Proposed Recommendations Document:

1.22 Treatment of Emission Trading Schemes

Summary Details

Links to Related Guidance/Discussion/Issue Notes and Latest Manuals: GN WS.7 Treatment of Emission Trading Schemes WS.7 Treatment of Emission Trading Schemes: Summary of Workshop and Proposed Recording Draft *2025 SNA* and Draft *BPM7*	
Global Consultation(s):	SNA Consultations: December 2023; June 2022
Discussions at the Advisory Expert Group on National Accounts (AEG) / Balance of Payments Committee (BOPCOM) Meeting(s):	AEG: February 2024; July 2023; October 2022; April 2022 Joint AEG/BPOCOM: July 2023; October 2022
Discussions at GFSAC Meeting(s):	To de determined

Summary of Proposed Recommendations:

The proposed recommendation is to continue to treat payments for emission permits issued by government as taxes, specifically as *taxes on the use of goods and on permission to use goods or perform activities (GFS code 11452),* at the time the emissions occur – for which the time of surrender of the permits is used as a proxy. The timing difference between when the payments are received and when the emission occurs (i.e., permits are surrendered) is to be recorded as *other accounts payable (GFS code 3308)* in the government accounts. The above recommendation is in line with current guidance in the *GFSM 2014* and so the reporting in the government accounts remains unchanged.

The one change proposed to the current *GFSM 2014* guidance, relates to the treatment in the accounts of the emission permit holders (outside of government). It is proposed that there will no longer be a nonproduced nonfinancial asset in *contracts, leases, and licenses* to capture the difference between the prepaid tax value and market value of the permit. Instead, any transactions between non-government permit holders are proposed to be recorded as financial transactions in *other accounts receivable* with revaluations applied to maintain the overall stock of *other accounts receivable* equal to the government held stock of *other accounts payable*.

The recommendations also acknowledge that the topic has been included in the proposed Post-2025 Research Agenda and proposes to initiate discussions on the unresolved issues identified in the Post-*2025 SNA* Research Agenda, in collaboration with SNA and BPM experts.

Background and Issues

1. An emission trading scheme is a flexible market mechanism by which governments control total emissions by issuing permits which can be traded, but with a requirement that companies engaged in polluting activities must surrender sufficient permits to government to cover their emissions during a period. Governments may choose to issue permits freely or through auction, which can be purchased by any market participant, and not just those companies engaged in polluting activities. Permits can be traded among market participants, allowing companies that exceed their emission quota to purchase unused permits from others. Some emission trading schemes are multi-national (an example being the EU Emissions Trading Scheme) with permits being traded across borders and potentially surrendered in a different government jurisdiction to the one that originally issued the permit.

2. The macroeconomic statistical treatment of permits issued under emission trading schemes was discussed extensively between 2009 and 2012, resulting in an agreed treatment which was reflected in the *GFSM 2014* (paras. 5.81 and A4.48-A4.49)[1]. However, it was recognized that conceptual issues remained that were not fully resolved in the agreed treatment, such as (i) the recording of permits issued freely by government, (ii) recognizing fully, the tradeable nature of the permits, and (iii) dealing with multinational schemes where total permit issuances in a country may not match the total number of permits surrendered. As a result, the issue remained on the *System of National Accounts (SNA)* research agenda and was discussed as part of the development of the draft *2025 SNA*.

3. During the update to the *2008 SNA* and *BPM6*, different possible approaches to improving the current treatment of emission permit schemes were extensively discussed and tested with four broad options considered: (1) permits as intangible nonproduced nonfinancial assets, (2) permits as intangible nonproduced nonfinancial assets with government revenue as taxes, (3) permits as financial assets with government revenue as rent, and (4) permits as financial assets with government revenue as taxes. It was recognized that each of the options under consideration had some shortcomings.

4. However, an agreement was reached on the treatment to be followed in the draft *2025 SNA* and *BPM7,* based on treatment of the permits as financial assets with government revenue as taxes. The Annex provides an example of the proposed new treatment.

5. As some issues still require further discussions, the topic has been placed on the Post-*2025 SNA* Research Agenda[2], which specifically notes: *"Further guidance is required on the treatment of emission permits issued freely by governments, multi-country emission permit schemes, and the typology of*

[1] These discussions can be read in the Update to SNA News and Notes issues 30/31 (February 2011) and 32/33 (March 2012) at https://unstats.un.org/unsd/nationalaccount/snanews.asp.

[2] See Post_*2025 SNA_BPM7*_RA.pdf

emission permits. The guidance needs to balance additional flexibility for economies that have much more developed emission trading schemes and limiting inconsistencies brought about by allowing different treatments which would introduce, among other issues, implications for the comparability of government debt. More importantly, the recording of emission permits also needs to be reconsidered as emissions trading schemes evolve over time, including in new ways that further impact the proposed treatment emission permits." The update to the GFSM may provide an opportunity to further discuss some of these issues.

Proposed Recommendations

6. To make no changes to the treatment for emission permits described in the *GFSM 2014* (paras. A4.48-A4.49) with respect to the government accounts, but to remove reference to the difference between the prepaid tax value of the permit and the market value of the permit being represented by a marketable contract (nonproduced nonfinancial asset) in the accounts of the holder.

7. The holder of the emission permits will retain stocks of other accounts receivable assets valued at the original issuance price, but when these are traded at different values then this will be accounted for through revaluations before and after the sale. It should also be clarified to not record any asset/liability for freely issued emission permits, and instead revalue them back to zero every time a freely issued permit is surrendered.

8. Initiate discussions on the unresolved issues identified in the Post-*2025 SNA* Research Agenda, in collaboration with SNA and BPM experts.

Rationale for Proposed Recommendations

9. The proposed recommendations aim to harmonize the updated *GFSM* with the *2025 SNA* and *BPM7*, a key objective of the *GFSM 2014* update process.

10. The proposed recommendation recognizes that the emission permits are traded by market participants like financial assets while also recognizing that from a government perspective the income from the emission trading scheme is compulsory and unrequited and so a type of tax on the polluting activities of companies. Furthermore, discussing issues identified in the Post-*2025 SNA* Research Agenda allows for the inclusion of any relevant resolutions into the updated GFSM.

Proposed Text for GFSM Update

11. The below change in the text of *GFSM 2014* (para. 5.81 and A4.49) is proposed. An example is shown in the Annex.

5.81 third bullet: *Taxes on pollution levied on the emission or discharge into the environment of noxious gases, liquids, or other harmful substances are included. On an accrual basis, the revenue receivable for emission permits, issued by governments under cap-and-trade schemes, should be recorded in this category at the time the emissions occur (the time of permit surrender being commonly used as a proxy). No revenue nor assets or liabilities should be recorded for permits that government issues free of charge. Instead in the accounts of the holders these permits need to be revalued back to zero every time there is a transaction with an emission permit that was freely issued. The timing difference between the cash received by government for the permits and the time the emission occurs constitutes a prepaid tax and* *gives rise to a financial liability (other accounts payable) for government. The difference between the prepaid tax value of the permit and the market value of the permit ~~represents a marketable contract (nonproduced nonfinancial asset) for the holder~~ is only reflected in the accounts of the holder at the time of sale, when the difference should be reflected as equal and opposite revaluations in the other accounts receivable of the seller and buyer (see paragraphs A4.48–A4.49). Amounts payable to government for the collection and disposal of waste or noxious substances are excluded from this tax category as they constitute a sale of services, recorded as sales of goods and services (142).*

A4.49 The payments for emission permits issued by government are treated as taxes on the use of goods and on permission to use goods or perform activities (11452), at the time the emissions occur. The timing difference between the payments received by government for the permits and the time the emission occurs gives rise to a transaction in financial liabilities classified as other accounts payable (3308) for government and a financial asset classified as other accounts receivable (3208) for the holder. The difference between the prepaid tax value of the permit and the market value of the permit ~~represents a marketable contract (nonproduced nonfinancial asset) for the holder. The creation and disappearance of the nonproduced non financial asset are recorded as an other change in volume of assets.~~ is only reflected in the accounts of the holder at the time of sale, when the difference should be reflected as equal and opposite revaluations in the other accounts receivable/payable of the seller and buyer.

Annex: Illustrative Example of the Proposed Treatment for Emission Permits

This annex replicates a numerical example for the recording of emission permits provided in the document titled, “Summary of Workshop and Proposed Recording”.

The starting point for the numerical example is that corporation A and corporation B have liquid assets (currency) in the value of $1000 and $1500, respectively. The numerical example then starts with the government issuing 100 emission permits which in auction are sold at a price of $10 each. The recording of the purchase of these permits by corporation A is rather straightforward. Government receives cash of $1000 with the equivalent increase of liabilities (other accounts receivable/payable) representing the prepaid taxes on production, while corporation A pays $1000 in cash with a concomitant increase in claims towards the government.

The next step in this example is that corporation A manages to sell the permits to corporation B at a price of $15 for each permit. The claims first need to be revalued from $1000 (= 100 * $10) to $1500 (= 100 * $15), after which the claims are sold at the agreed market price, in exchange for cash, to corporation B. Here, a problem arises, because the value of the financial claims in the books of the government differs from the value of the corresponding claims in the books of corporation B. Given that it has been agreed not to change the value in the government accounts, and in view of the surrender of the permits at issuance prices at a later moment in time, the claims in the books of corporation B need to be revalued downwards, as a consequence of which net worth of corporation B is misrepresented.

The last step relates to the surrender of half of the permits. This is relatively straightforward, as the value of the emission permits was already revalued to the issuance price. Taxes on production are recorded with a counterpart decrease in the value of the financial claims. All of this is starting from the assumption that one can apply the relevant valuations, which may be quite different from actual practice.

	Government		Corporation A		Corporation B	
Opening balance						
	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
Balance sheet: cash			1000		1500	
Establishing emission permits						
	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
Financial account						
Cash	+1000		-1000			
Other accounts receivable/payable		+1000	+1000			
Balance sheet						
Cash	+1000		0		+1500	
Other accounts receivable/payable		+1000	+1000			
Market price of emission permits increases from $10 to $15 and is sold to another corporation						
	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
Financial account						
Cash			+1500		-1500	
Other accounts receivable/payable			-1500		+1500	
Revaluation account						
Other accounts receivable/payable			+500		-500	
Balance sheet						
Cash	+1000		+1500		0	
Other accounts receivable/payable		+1000			+1000	
Surrender of half of the emission permits at the issuance price						
	Revenue	Expenditure	Revenue	Expenditure	Revenue	Expenditure
Current account						
Taxes on production	500					500
Net lending/borrowing	**500**				**-500**	
	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
Financial account						
Cash						
Other accounts receivable/payable		-500			-500	
Revaluation account						
Other accounts receivable/payable						
Balance sheet						
Cash	+1000		+1500		0	
Other accounts receivable/payable		+500			+500	