Carbon credit accounting: evidence of assets features in Brazilian markets that do not perfectly qualify as intangibles

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Acknowledgments
Motivation

- There is a consensus that carbon credits are assets, but the accounting classification of these assets is not consensual.
  - The favorite accounting treatment is as intangible assets.
  - However, practitioners have adopted different accounting treatments, such as inventories or financial instruments.
  - It leads us to think carbon credits do not fit perfectly into intangible assets.
Objective

The purpose of the paper was to describe and analyze, through a positive approach, cases of accounting practices for carbon and decarbonization credits of buying and selling companies, in voluntary and regulated markets, through their specific features in Brazil.
Brazil is a relevant case

- There are two markets in which carbon credits are traded, both of which without defined accounting standards:
  - the voluntary market for carbon projects in general and
  - the regulated market specific for the decarbonization credits generated from the biofuels (called CBIOs).
Brazil is a relevant case

- The literature on carbon credit accounting has focused on the European 'cap and trade system’, but it is still scarce on voluntary markets (Birchall, Murphy and Milne, 2015; He et al., 2022).

- The Securities and Exchange Commission of Brazil has recently prepared an accounting guideline based on current IASB documents. The draft was open for comment until the 20th October.
Our study

**Seller**
CO₂eq offset organizations

- Measurement of CO₂eq saved in its process
- Contracting investment for project
- Emission of carbon credits
- Sale or delivery of carbon credits

Involvement of third parties in the process: organizations authorized by regulators to check, issue, control ownership and eliminate certifiers or entities that mediate the negotiation of certificates.

**Buyer**
CO₂eq emitting organizations

- Obligation or decision to neutralize emitted CO₂eq
- Measurement of CO₂eq emitted in its process
- Purchase or contracting carbon credits
- Retirement of carbon credits
Our study

Entities buying carbon credits

Case 1

 Entities issuing and selling carbon credits

Case 2

Case 3

Case 4
Case 1: Buyer company in Voluntary Market

- Sustainable reputation
- Commitment to Carbon Neutral Program since 2007
- 2021 Financial Reporting audited by PwC
- 2021: revenue of €6.35 billion and around 35 thousand employees
Case 1

Obligation or decision to neutralize emitted CO₂ eq

Carbon Neutral Program: constructive obligation

Measurement of emitted CO₂ eq in its process

Non-current liabilities - Other
Income – Expense (not specified)

A best estimate of cash disbursement required to settle the obligation

A developing project:
Other current Assets

Current Asset - Cash Equivalent

B revised using the expectation of certificates resulting from the project.

Purchase or contracting carbon credits

Receiving carbon credits property and retiring

Retirement of carbon credits

Non-current liabilities - Other
‘Other current Assets’
Case 2: Seller organization in Voluntary Market

- Main activity is carrying out biodiversity conservation projects.
- 2021 Financial Report, audited by a Brazilian independent auditing company.
Case 2

Organization exchanges with landowner rights to issue and trade carbon credits. Transaction declared in notes, but no evidence of accounting recognition.

**Receiving cash:**
- Current Asset - Cash Equivalent
- Non-current liabilities (NCL) - "Projects to execute".

**Developing project:**
- Current Asset - Cash Equivalent
- Income – Costs from projects
- NCL - "Projects to execute".
- Income – Revenue\(^A\) \(^A\)“simultaneously and by the same value”

No evidence of the accounting record of issuing carbon credit certificates, or mention of transferring emission rights to investors.
Case 3: Buyer company in Regulated Market

- The leading fuel distributor in Brazil
- Company must buy Decarbonization credits (CBIOs) and retire it
- It employs about 3,300 people with revenue of €20.6 billion in 2021
- 2020 and 2021 Financial Reports, both audited by KPMG
Case 3

RenovaBio: legislation determines the commitment and government sets targets annually.

- Obligation or decision to neutralize emitted CO₂eq
- Measurement of emitted CO₂eq in its process
- Purchase or contracting carbon credits
- Retirement of carbon credits

Current liabilities – Provision for CBIO

Income – Other Revenue (expenses), net

Non-current Assets - Intangible

Current liability - Provision for CBIO

Current Asset - Cash Equivalent

Non-current Assets - Intangible

\[\text{A measured by the costs of the amounts already bought and the average market value for the remaining amounts.}\]

\[\text{B indefinite useful life, measured by historical cost.}\]
Case 4: Seller company in Regulated Market

- It employs 12.5 thousand people with revenue of €1.1 billion in 2021 harvest (end date March 31\textsuperscript{th}, 2022).
- It was the first ethanol producer to achieve certification for selling CBIOs.
- 2020 and 2021 Financial Reports, both audited by PwC.
Company requests CBIO issue proportionately to the volume of biofuel produced using a standardized methodology. There is no evidence of accounting recognition. RenovaBio: legislation ensures demand for CBIO. Case 4

- Current asset - Inventories A
- Not specified
  A measured by net receivable value.
- Current asset - Cash Equivalent
- Income – Other operating revenue
- Not specified B
- Current Asset - Inventories
  B probably the same account registered before.
Discussion parts

1. Understanding of the asset flow, based on studied cases;

2. Assets features in Brazilian markets that do not perfectly qualify as intangibles; and

3. Why maybe a specific standard is necessary.
Discussion

1. Understanding of the asset flow

**Origin**
- Generated during ordinary course of business
- Government Grant
- Investment in third party projects taking its risks and benefits of maturation
- Acquisition – separated or in a business combination

**Application**
- Sale
- Retirement

Carbon credits seem like intangible assets because they are identifiable and have no physical substance.
2. Features that do not perfectly qualify as intangibles

- Generated during ordinary course of business
- Government Grant
- Investment in third party projects taking its risks and benefits of maturation
- Acquisition – separated or in a business combination

IAS 38.3: [...] this Standard does not apply to: “(a) intangible assets held by an entity for sale in the ordinary course of business (see IAS 2 Inventories).” [...]
2. Features that do not perfectly qualify as intangibles

- Generated during ordinary course of business
- Government Grant
- Investment in third party projects taking its risks and benefits of maturation
- Acquisition – separated or in a business combination

Companies authorized to issue CBIOs have no other benefits besides the sale of the instrument.

IAS 38.3: [...] this Standard does not apply to: “(a) intangible assets held by an entity for sale in the ordinary course of business (see IAS 2 Inventories).” [...]
2. Features that do not perfectly qualify as intangibles

- Generated during ordinary course of business
- Government Grant
- Investment in third party projects taking risks and benefits of maturation
- Acquisition of carbon credit

Carbon Credits

Should carbon credit during maturation phase be recognized as an intangible asset in development since it seems to fit IAS 38.57?

Should the investing party recognize the prepayment as a financial asset because payment for services has been made in advance of the entity receiving those services like IAS 38.70 even if the entity is exposed to carbon credits risks?
2. Features that do not perfectly qualify as intangibles

- Generated during ordinary course of business
- Government Grant
- Investment in third party projects taking risks and benefits of maturation
- Acquisition of carbon credit

Retirement of carbon credits means settlement of the liabilities from carbon emissions, which is different from obtaining “benefits resulting from the use of the asset by the entity” (IAS 38.17).
3. Maybe a specific standard is necessary

- Lack of uniformity in practices seems to show that it is difficult for preparers to find an accounting treatment that does not produce misleading information.

- Discretionarity on classification of the asset may not reveal which entity controls the carbon credits and is exposed to their risks.

- Although liabilities are not the focus of this presentation, a specific standard should approach liabilities derived from carbon emissions.
3. Maybe a specific standard is necessary

- A specific standard should establish principles for:
  - recognizing assets and liabilities when (or as) a company achieves control over the carbon credits,
  - and the possibility of measuring them at fair value or at cost.

- A specific standard for carbon credits could avoid problems of:
  - accounting mismatching of assets and liabilities,
  - mismatched accounting treatment for both sides of an agreement involving carbon credits,
  - and for inappropriate accounting choices for recognition and measurement, including possible earnings management.
Contributions

- Building a more complete view of the economic nature of assets and liabilities related to carbon credits
  - can enable the development of accounting standards aiming for faithful representation of its specificities
  - generate insights that can complement knowledge and be useful for setting accounting standards, and for buyers and sellers of carbon credits in other markets.
- Strengthening the scientific conversation on financial accounting of carbon credit assets and liabilities, by bringing the observation of different economic interests in voluntary and regulated markets and the accounting choices linked to these interests.
Thank you!

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