



Climate Change 2017 Information Request BM&FBOVESPA

Module: Introduction

Page: Introduction

CC0.1

Introduction

Please give a general description and introduction to your organization.

Bolsa de Valores, Mercadorias e Futuros S.A. – BM&FBOVESPA is a public company with stock trades under ticker symbol BVMF3 on Novo Mercado, the premium listing segment for issuers with the highest corporate governance standards. BVMF3 is tracked by the Ibovespa, IBrX-50, IBrX and ITAG indexes, among others. Headquartered in São Paulo, Brazil, the group also comprises the BM&FBOVESPA's Market Supervision (BSM), Settlement Bank and Social Institute. It has representative offices in NY, London and Shanghai to support local market players and build up relations with regulators and governments, as well as to meet potential investors and promote the Brazilian market. In 2016, BM&FBOVESPA took more steps in building strategic partnerships with LATAM's major exchanges, acquiring 9.9% of the Colombian Stock Exchange and increasing its participation in the Santiago Stock Exchange to 10.4%. These investments were added to the 4.1% share of the Bolsa Mexicana de Valores. The main objective is to contribute to the development of the region's markets, help on the creation of new products, and ease reciprocal access by issuers and investors. BM&FBOVESPA had 1,338 employees, 63 interns and a market value of R\$ 29,948 million (on December 31st).

It manages organized exchange and over-the-counter markets, offering trading, clearing and settlement systems for all the main asset classes, from stocks and bonds to currencies and financial and commodity derivatives, and acting as central counterparty to guarantee the transactions performed in its environments.

BM&FBOVESPA stands out in the exchange industry for its vertically integrated business model, which enables operation in all stages of the process, providing all the services required by market members, from organizing purchase and sale transactions to clearing, risk control, settlement and securities custody. This structure is vital to the company's growth model, based on credibility, reputation, and on a qualified management team attentive to trends and opportunities in the global industry and to corporate governance best practices. Thus, BM&FBOVESPA fosters innovation by inspiring new practices and starting new products and services that foresee needs from market players, make processes more efficient, minimize externalities, and above all add value.

In 2009, BM&FBOVESPA began a structured diffusion of sustainability within the organization, forming a Sustainability area directly linked to the CEO. It was the 1st exchange in the world to sign up the UN Global Compact, in 2004. In this context, it is member of the UN Global Compact Brazilian Committee and participates in two groups: the Sustainable Development Goals and the Energy & Climate Working Groups. Has participated on the COP Brazilian Delegation in the United Nations Climate Change Conference since 2009. In 2010, it became the 1st exchange in any emerging-market country to formally commit to the Principles for Responsible Investment (PRI) as well as the 1st exchange to become part of the Gold Community in the Global Reporting Initiative (GRI). In 2016, BM&FBOVESPA and its Media Relations, Sustainability, Communications Managing Director, Sonia Favaretto, was announced as one of ten 2016 Local SDG Pioneers", during the UN Global Compact Leaders Summit 2016, in New York. Regarding the initiatives on the stock exchange industry, in 2012, BM&FBOVESPA was a founding signatory to the Sustainable Stock Exchange (SSE), a peer-to-peer learning platform for exploring how exchanges—in collaboration with investors, regulators, and companies—can encourage sustainable investment and enhance corporate transparency, and ultimately performance, on ESG (environmental, social and corporate governance) issues. In 2014, became a member of the Sustainable Working Group (SWG) at World Federation of Exchanges, which aims to address ESG concerns and tries, through a research-driven dialogue, to build consensus among its members on sensitive issues, and then present those findings to the WFE. From 2016 to 2018, BM&FBOVESPA was elected as vice-chair of the SWG. In March 2017 B3 was created as the result of a merger between BM&FBOVESPA and CETIP. The combination gave rise to a world-class financial market infrastructure company, consolidating BM&FBOVESPA's position in listed products trading and post-trading, and CETIP's position in registration and depository services for OTC securities. The merger extended the range of products and services offered to B3's customers, as well as creating efficiencies for both the company and the market. However, because the answers to this questionnaire covers the period between January 1 and December 12, 2016,

its contents refer solely to BM&FBOVESPA S.A. Securities, Commodities & Futures Exchange. The integration of the activities of BM&FBOVESPA and Cetip could considerably modify the historical data of the answers to next year's questionnaire.

CC0.2

Reporting Year

Please state the start and end date of the year for which you are reporting data.

The current reporting year is the latest/most recent 12-month period for which data is reported.

Enter the dates of this year first.

We request data for more than one reporting period for some emission accounting questions.

Please provide data for the three years prior to the current reporting year if you have not provided this information before, or if this is the first time you have answered a CDP information request.

(This does not apply if you have been offered and selected the option of answering the shorter questionnaire). If you are going to provide additional years of data, please give the dates of those reporting periods here. Work backwards from the most recent reporting year.

Please enter dates in following format: day(DD)/month(MM)/year(YYYY) (i.e. 31/01/2001).

Enter Periods that will be disclosed

Fri 01 Jan 2016 - Sat 31 Dec 2016

CC0.3

Country list configuration

Please select the countries for which you will be supplying data. If you are responding to the Electric Utilities module, this selection will be carried forward to assist you in completing your response.

Select country
Brazil
United States of America
United Kingdom
China

CC0.4

Currency selection

Please select the currency in which you would like to submit your response. All financial information contained in the response should be in this currency.

BRL(R\$)

CC0.6

Modules

As part of the request for information on behalf of investors, companies in the electric utility sector, companies in the automobile and auto component manufacturing sector, companies in the oil and gas sector, companies in the information and communications technology sector (ICT) and companies in the food, beverage and tobacco sector (FBT) should complete supplementary questions in addition to the core questionnaire.

If you are in these sector groupings, the corresponding sector modules will not appear among the options of question CC0.6 but will automatically appear in the ORS navigation bar when you save this page. If you want to query your classification, please email respond@cdp.net.

If you have not been presented with a sector module that you consider would be appropriate for your company to answer, please select the module below in CC0.6.

Further Information

Module: Management

Page: CC1. Governance

CC1.1

Where is the highest level of direct responsibility for climate change within your organization?

Board or individual/sub-set of the Board or other committee appointed by the Board

CC1.1a

Please identify the position of the individual or name of the committee with this responsibility

- i) The highest body responsible for dealing with climate change issues at BM&FBOVESPA is the Sustainability Committee.
- ii) The Committee's mission is focused on strategic guidance and approval of the Company's macro planning and initiatives. The Committee is chaired by the BM&FBOVESPA CEO and consists of 4 executive members, 4 directors and 2 external members. The Managing Director of Internal Controls, Compliance & Corporate Risk and the Managing Director of BM&FBOVESPA Bank are part of the Sustainability Committee as permanent members, which represents a very important composition of the Committee for an effective climate change risk management process. The Committee meetings were held quarterly in 2016 with reporting to the Board of Directors. It is important to mention that the minutes of the sustainability committee's regular meetings are circulated to all directors, in order to engage them and seek for their support on the issue.

Created, among other goals, to provide support to the Sustainability Committee, the Sustainability Working Group is in charge of proposing and conducting the Company's sustainability agenda, as well as reporting the actions undertaken for the Committee. The Sustainability Working Group is made up of high level administration members, reports to the Sustainability Director and meetings are held on a monthly basis.

The Sustainability Committee and the Sustainability Working Group were created in 2009 (one year after the integration between BM&F and BOVESPA), when, in addition to its social and environmental responsibility activities, BM&FBOVESPA began the structured dissemination of the sustainability concept within the new organization through the creation of a Sustainability Area linked to the CEO.

The Sustainability Area is responsible for incorporating this approach into the Exchange business. Furthermore, the Area serves as an internal consultancy, whose duties are to mobilize, encourage and guide the construction of strategies and actions grounded in the sustainability concept.

CC1.2

Do you provide incentives for the management of climate change issues, including the attainment of targets?

No

Further Information

Page: CC2. Strategy

CC2.1

Please select the option that best describes your risk management procedures with regard to climate change risks and opportunities

Integrated into multi-disciplinary company wide risk management processes

CC2.1a

Please provide further details on your risk management procedures with regard to climate change risks and opportunities

Frequency of monitoring	To whom are results reported?	Geographical areas considered	How far into the future are risks considered?	Comment
Six-monthly or more frequently	Other committee	It is considered all the units where BM&FBOVESPA has activities.	> 6 years	As part of the corporate governance structure, the Sustainability Committee is the main forum for climate change risks and opportunities discussion, with the duty to support the CEO on setting strategies to handle these issues within the Exchange's operations. The body sends its reports and remarks to the Executive Board. Another 2 Committees join this process: 1- Business Continuity Committee monitors issues related to critical resources that may affect the operation in short/medium term. When identified the shortage of resources due to climate change or other drivers, this Committee sets up work groups to create action plans to mitigate the risks. 2-The Corporate Risk Advisory Committee meets monthly to monitor the main risks related the Exchange's activities from strategic, operational, financial and regulatory views. Formal reports with all risks are sent to the Board's Audit and Risk & Financial Committees every half-year, ensuring knowledge of the highest levels of management.

CC2.1b

Please describe how your risk and opportunity identification processes are applied at both company and asset level

BM&FBOVESPA is a central institution in the Brazilian capital market with the role of a self-regulator of its own market. The Exchange's risk and opportunities identification process considers the complex context it is inserted with a holistic analysis, not limited only to operational questions. This process addresses endogenous and exogenous strategic, operational, financial and regulatory issues. BM&FBOVESPA is the only national stock exchange that trades shares and derivatives in a relationship with companies of many sectors interested in operation financing, while major financial institutions are also participants in its market. This makes its risk identification a lot challenging and embracing. To meet its goals,

BM&FBOVESPA relies on a structure composed by 3 committees:

- i) Company Level: 1) The Sustainability Committee, whose mission is to identify threats linked to sustainability and climate change. It provides international benchmarking and alignment with companies from various sectors in this field; 2) The Business Continuity Committee is responsible to evaluate the effectiveness of the business continuity process including the identification of potential threats to operation. All threats are discussed and preventive action plans are defined and designed to face impacts related to climate change; and 3) The Corporative Risk Advisory Committee monitors risks of any order, including those identified by the other two Committees, and reports them each semester to the Executive Board, Board of Directors, Audit Committee, and regulatory bodies.
- ii) Asset Level: The Process and Risk Department documents the corporative process, identifying its risk factors. It identifies opportunities for improvement as well as strategic, operational, financial and regulatory issues

Risks are identified by the bodies above and results are reported to the executive and strategic levels of the Company aiming to define action plans and monitor them.

CC2.1c

How do you prioritize the risks and opportunities identified?

There is a Corporate Risk Advisory Committee, composed by a representative group of directors that aims to discuss the company's risk profile in a monthly basis, address mitigation actions and disseminate a risk culture. Regarding sustainability issues this committee relies on the support of the Sustainability Director.

The main risks identified are classified according to its impact and probability, and a risk level is stated according to an internal methodology. After classification, risks are prioritized and action plans for mitigation are defined. Reports about these risks are issued every semester and submitted to the Board's Audit and Risk & Financial Committee, as well as to the Board of Directors itself.

Secondly, it is used a bottom-up approach (asset level), in which the company's risk profile is assigned from detailed operational information. This level of detail provides a better definition of responses and metrics for risk rating, allowing a continuous risk monitoring through indicators listing.

CC2.2

Is climate change integrated into your business strategy?

Yes

CC2.2a

Please describe the process of how climate change is integrated into your business strategy and any outcomes of this process

The creation of a Sustainability Committee, with the mission to provide strategic guidance and approve the Company's sustainability macro planning has enabled the discussion of Climate Change integration into the business strategy. The Risk Director, who has a key role in strategy formulation, is a permanent member at this Committee while the Sustainability Head participates in the Exchange's overall strategic planning. In 2011, the Exchange's CEO took part in the Honorary Council of the CDP South America, while the Sustainability Head joined the Latin America CDP's Consultive Committee, as part of the organization commitment with the issue. The assimilation of sustainability and climate change in the Exchange's business strategy occurred through sustainable products and services release, once it took the duty to spur market members to develop best practices.

The most important initiative regarding Climate Change was the creation of a Carbon Efficient Index (ICO2), announced at COP15, with its first portfolio launched at the COP16. Before this initiative, only 30% of IBrX-50 companies reported their emissions, today more than 60% do it. Each year the minimum disclosure's requirements are assessed, in order to gradually expand the criteria and consequently induce participating companies to upgrade their inventories quality and completeness. With a combination of ICO2 plus the Climate Change Dimension of the Corporate Sustainability Index (ISE) questionnaire, BM&FBOVESPA hopes to prepare companies for the competitiveness of a low carbon economy, encouraging GHG inventories development and disclosure, offering transparent data of companies'

emissions and creating investment opportunities.

As part of its intention to contribute to the development of LATAM markets, BM&FBOVESPA created a new Directory to whom was assigned the responsibility to promote interaction with the IberoAmerican Federation of Exchanges (FIAB) in sustainability issues in partnership with the Directory of Media Relations, Sustainability and Communications. With this objective, a strategic work plan was approved by the FIAB Presidency and a working group was created with some stock exchanges with the purpose of carrying out a detailed mapping of the knowledge and development levels of the stock exchanges in the region and share and create information to establish sustainability policies and guidelines.

BM&FBOVESPA was chosen to lead this group. The work plan was divided into 3 phases: mapping knowledge and initiatives's level of the stock exchanges through a questionnaire, report's preparation of existing sustainability initiatives in the region, with the results obtained and elaboration of guidelines so the exchanges have a standard for the creation of their policies using social, environmental, market and governance indicators.

Regarding its own impacts, BM&FBOVESPA started to measure GHG emissions in 2009 and has implemented GHG Inventory independent audit since 2010, disclosing the data in the Brazil GHG Protocol Program every year, with a Gold stamp. Since 2013, BM&FBOVESPA compensates annually its GHG emissions that it has been unable to reduce, becoming carbon neutral. In 2016 BM&FBOVESPA was recognized by CDP as one of 16 Brazilian companies with the "best responsible management practices" in climate change.

The Sustainability Policy, approved by the Board in 2013, provides a solid foundation for the development of climate change oriented initiatives with endorsement of the Exchange's highest governance body.

Environment is one of the 4 sustainability's pillars, in which the company commits itself (in long and short term) to adopt eco-efficiency programs, optimize energy and manage GHG emissions, in order to reduce its direct impact and climate change risks. After 3 years of a succeeded policy implementation across 17 directories, the strategy of the Sustainability Area has changed, since the demands started to be identified by the directories themselves. The Area assumed an advisor role acting in 2 lines: by demand, supporting specific projects owned by the directories; or by opportunity, when the sustainability team identifies a potential project, it contacts each directory.

BM&FBOVESPA also seeks to develop projects that enable gains of energy and other resources efficiency on its operation. Settled in 2014, the new data center, certified by the LEED sustainable building standard, was a strategic investment to assure business growth with cutting-edge technology, reduce energy & other costs and increase of security in operations. As part of the post-trade integration project, a new Clearinghouse will replace the four existing segmented clearings. The new Clearinghouse will unify settlement, back office and risk management processes for the different markets and ensure the reliability, improving efficiency and capital allocation. A Project Prioritization Committee analyses and approves large scale projects, including the assessment of social and environmental impacts of the project, through the application of a specific questionnaire.

BM&FBOVESPA's stakeholder engagement with brokerage houses, analysts, opinion makers, shareholders, investors, governments and civil society is reflected in the review process of the Special Corporate Governance Segment criteria, in which BM&FBOVESPA is promoting a public hearing for about the changes suggested to its Regulation. One of the topics included in the survey is the requirement of companies on the Special Corporate Governance Listing segments to disclose ESG information, including GHG emissions data. To gain competitive advantage over its peers, BM&FBOVESPA is going forward on sustainability and climate changes initiatives, providing to investors a range of relevant information about listed companies, through ISE, ICO2 and "Report or Explain" initiative. In 2016, BM&FBOVESPA has launched the second edition of the "Novo Valor – Corporate Sustainability: How to begin, who to involve and what to prioritize" Sustainability Guide. The Novo Valor Guide has a timeline showing the evolution of the sustainable development concept in the business environment, with a recommendation of 13 steps towards sustainability.

In ISE's scope, there are available in the website instruments developed in its 10 anniversary so the society can follow the evolution of the agenda. These instruments are "ISE's Platform of Indicators", a database where researchers and analysts can access statistical performance data of the companies that have integrated the index since 2005 and the "ISE's World", a tool that represents the ISE's themes through images, giving an easy comprehension of the index itself, spreading the relevant practices related to the questionnaire.

BM&FBOVESPA was considered one of the Top 100 Voluntary Offset Buyers As Reported to CDP in 2015 by the Ecosystem Marketplace on the report Buying In: Taking Stock Of The Role Of Offsets In Corporate Carbon Strategies 2016.

CC2.2c

Does your company use an internal price on carbon?

No, and we currently don't anticipate doing so in the next 2 years

CC2.3

Do you engage in activities that could either directly or indirectly influence public policy on climate change through any of the following? (tick all that apply)

Direct engagement with policy makers
Other

CC2.3a

On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution
Other: Mandatory sustainability reporting, including GHG emissions indicators.	Support	BM&FBOVESPA participates in the following group of the Brazilian Ministry of Environment. • The Network of Brazilian Women Leaders for Sustainability mobilizes woman that occupy leadership positions to leverage sustainability issues in their market niche.	The Network of Brazilian Women Leaders is an induction movement, which presents an annual agenda of debates and meetings. The document entitled Platform 20 presents a summary of the main proposals for action to be implemented, linked to three agendas considered by the Network as priorities: (1) Women's Empowerment, (2) Green Entrepreneurship or Sustainable Business, (3) Need to change patterns of consumption and production.

CC2.3e

Please provide details of the other engagement activities that you undertake

BM&FBOVESPA is strongly committed to strength internal and external discussions on sustainability and climate change, and spread to its stakeholders the best practices in transparency and corporate management in several ways. Important sustainability initiatives started from the inside out, as part of its portfolio, incorporating the concept into products and services while engaging with the market members. Examples:

-Sustainability stock indexes: Corporate Sustainability Index (ISE) and Carbon Efficient Index (ICO): In 2015, ISE completed 10 years promoting socio, environmental and governance (ESG) transparency and performance among listed companies. To celebrate it, new tools were released in 2015, including the "ISE Platform Indicators" which provide statistical performance data of the companies that have integrated the index since 2005.

-Report or Explain for Sustainability or Integrated Reporting: in 2012, the BM&FBOVESPA started to ask listed entities to declare on whether they disclose a Sustainability Report or to explain why they didn't. From 2016 on, BM&FBOVESPA will no longer request such disclosure since companies will have to answer directly to the Regulator ("CVM - Securities and Exchange Commission of Brazil"). This is a great achievement to BM&FBOVESPA, as a sustainability sponsor. In 2016, the Exchange compiled the responses from companies and made it available on its website.

-E-book "Sustainability in Business: How to start, who to involve and to prioritize": developed in 2015 and implemented in 2016, to support privately held companies on the adoption of sustainability practices in their business, demystifying the idea that sustainability is limited to large enterprises.

Sustainable Development Goals (SDG): In 2016, as part of the UN Global Compact's campaign "Making Global Goals Local Business", the Local SDG Pioneers program recognized people who demonstrate how to turn Sustainable Development Goals into business, thus engendering economic, social and environmental benefits. In this context, BM&FBOVESPA and its Media Relations, Sustainability, Communications and Social Investment Managing Director, Sonia Favaretto, were announced as one of ten 2016 Local SDG Pioneers", during the UN Global Compact Leaders Summit 2016, in New York. The managing director was recognized for her efforts in regard to Sustainable Development Goal (SDG) number 8, concerning Decent Work and Economic Growth. Two key accomplishments in this field were the Socio-Environmental Investment Exchange (BVSA) and Corporate Sustainability Index (ISE), which are national and international reference points that positively impact society and companies by promoting best practices and social inclusion and by including sustainability in the corporate mainstream.

BM&FBOVESPA was part of the Brazilian working group of the "Task Force on Climate related Financial

Disclosures”, which is a global initiative promoted by the Financial Stability Board (FSB) aimed to “develop voluntary, consistent climate-related financial risk disclosures for use by companies in providing information to investors, lenders, insurers, and other stakeholders. BM&FBOVESPA participated in the 60-day public commentary period, in the first months of 2017 by giving feedback individually and by supporting the SWGs feedback, which is being incorporated into a recommendations report, BM&FBOVESPA also joins many sustainability bodies and is a signatory of national and international conventions that include climate change as a priority, as listed below:

-Signatory to the UN Global Compact, member of the Global Compact Brazilian Committee (CBPG) e and vice-president of CBPG’s board.

-Signatory to the UN Principles for Responsible Investment (PRI)

-Signatory to the UN Women’s Empowerment Principles (WEPs)

-Founding Signatory to the UN Sustainable Stock Exchanges (SSE)

-Member and co-vice-chair of World Federation of Exchanges’ (WFE) Sustainability Working Group

-Member of the Global Reporting Initiative (GRI) Brazil Advisory Committee

-Member of the FEBRABAN’s Intra-Sector Sustainability and Environment Committee and Social Responsibility and Sustainability Board

-Member of the Rural Brazilian Society Sustainability Committee (SRB)

-Member of the Empresa Pró-Ética Committee

-Member of AMCHAM’s Sustainability Committee

-Member of the Latin America CDP’s Consultive Committee

-Member of the IBGC Sustainability Study Group

-Member of the Brazilian Women Leaders Network for Sustainability by the Brazilian Ministry of Environment

In the context of the Sustainable Stock Exchanges (SSE) and in FEBRABAN participations, the Exchange supports the following actions:

-Communication to Stakeholders and Model Guidance: SSE initiative to engage capital market members in a dialogue on responsible investment and sustainable business practices.

-Guide for issuing green titles in Brazil published by FEBRABAN in 2016: BM&FBOVESPA supported the revision of the document.

CC2.3f

What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

The Sustainability Committee, which is responsible for Climate Change integration into the Company's strategy, is constantly discussing the Sustainability area responsibilities, to ensure that BM&FBOVESPA’s participation in policy development and voluntary initiatives are consistent with the company’s overall climate change strategy. Besides that, if and when necessary, important and relevant issues regarding Climate Change and sustainability are presented to the Board.

In 2013, BM&FBOVESPA’s Sustainability Policy was approved by the Board of Directors, ensuring a solid baseline for the development of projects to reduce its own environmental impacts (eco-efficiency, optimize energy and manage its greenhouse gas emissions levels) and to engage with other market agents on the promotion of sustainability best practices. The complete text of BM&FBOVESPA’s Sustainability Policy is available at <http://ri.bmfbovespa.com.br>, in “Corporate Governance, Bylaws, Codes and Policies”. This internal sustainability governance is very important to inspire issuers, shareholders, investors, analysts and brokerage houses in this direction, considering the Exchange’s potential to influence the market as a whole.

Regarding the investors, in order to capture concerns and demands, BM&FBOVESPA held its first Investor Briefing ESG Event on May 2016: a presentation of BM&FBOVESPA’s Annual Report, with a detailed focus on Company’s sustainability programs, reporting and materiality analysis.

The commitment to promote, induce and assure the sustainability best practice was materialised by the institution of the Sustainability stock indexes such as the Corporate Sustainability Index (ISE) and Carbon Efficient Index (ICO2), which are good examples of Sustainability & climate change opportunities integration to the Exchange’s Business Strategy, in short and long terms. They have generated new businesses while promoting best practices across the market. The process of ISE’s portfolio selection comprises companies’ application to a 7 sustainability dimension questionnaire, in which one of these is climate change. The Corporate Sustainability Index’s Board of Governors (CISE), the highest body of governance within the Index structure, has the mission to ensure that the processes of the Index management, including questionnaires construction and selection of the enterprises, occurs in line with the Exchange’s sustainability strategy and following the principles of transparency.

Further Information

CC3.1

Did you have an emissions reduction or renewable energy consumption or production target that was active (ongoing or reached completion) in the reporting year?

No

CC3.1f

Please explain (i) why you do not have a target; and (ii) forecast how your emissions will change over the next five years

i) BM&FBOVESPA's activities and services are not as carbon intensive as construction or power generation companies, since their main emissions are indirect and related to commuting, business travel and electricity purchased in its offices. Therefore, the low amount of annual emissions makes it harder for BM&FBOVESPA to establish both absolute and intensity targets over these emissions due to their high vulnerability to unexpected events. In terms of indirect emissions from purchased electricity, Brazilian interconnected grid has a significant contribution from hydro power plants, which makes it vulnerable to droughts and other climate events that might double, or reduce by half, the national emission factor from one year to another. BM&FBOVESPA has no control over this factor and for this reason the company monitor and manage its energy consumption, regardless of GHG emissions associated to the electricity generation. Even though there are no specific targets to reach, the company has been implementing energy efficiency measures, such as modernization of the lifts, data center and refrigeration systems, reducing its business travel by installing video conference call meeting rooms, using the "bike boy" option for short distance transportation services instead of motor boy services, installing a bicycle parking, developing a carpool project – called "Carona Solidária", restricting the use of taxis by employees – named "Política de Táxi", so they can reduce their emissions during commuting. In addition to these measures, information about sustainability is shared on BM&FBOVESPA's intranet, leading to the adoption of best practices, especially related to climate change, contributing to reduce the environmental impact of BM&FBOVESPA's activities. Besides that is important to mention that BM&FBOVESPA compensate its greenhouse gas (GHG) emissions that it has been unable to reduce, thus becoming carbon neutral.

ii) For the next five years, BM&FBOVESPA believes that its GHG emissions may increase at the following sources:

- Scope 1: Increased consumption and combustion of fossil fuels by BM&FBOVESPA's own fleet of vehicles due to an increase in business activities, however it may be reduced by the initiatives mentioned above;
- Scope 1: Increase in emissions from the release of refrigerant gases due to growth of staff and facilities. It is expected to raise the use of R-407C in 3% because of compressors "overhaul", what would represent less than a 2% increase of Scope 1 emissions.
- Scope 2: increase of electricity consumption in 50% due to the new Data Center process of occupation, to incorporation of Cetip's operations and to the growth of staff and facilities, even deactivating the data centers of two sites. This could result in a 50% increase of Scope 2 emissions if the Brazilian Government maintains the same balance on the use of renewable and non-renewable energy sources. In the long term, the tendency is for consumption to be reduced (concentration of operations and people).

Also, the integration of the activities of BM&FBOVESPA and Cetip could considerably modify the amount of emissions reported in the next years.

CC3.2

Do you classify any of your existing goods and/or services as low carbon products or do they enable a third party to avoid GHG emissions?

Yes

CC3.2a

Please provide details of your products and/or services that you classify as low carbon products or that enable a third party to avoid GHG emissions

Level of aggregation	Description of product/Group of products	Are you reporting low carbon product/s or avoided emissions?	Taxonomy, project or methodology used to classify product/s as low carbon or to calculate avoided emissions	% revenue from low carbon product/s in the reporting year	% R&D in low carbon product/s in the reporting year	Comment
Product	<p>BM&FBOVESPA enable GHG emissions to be avoided by the companies listed by promoting, inducing and assuring climate change best practice through the ISE (Corporate Sustainability Index). More information can be found at http://www.bmfbovespa.com.br/en_us/products/indices/sustainability-indices/.</p>	Avoided emissions	<p>Other: There isn't a unique methodology since ISE is composed by companies from several sectors. With this initiatives, BM&FBOVESPA is recognized to have an important role in stimulating companies to enhance their GHG emissions management and reporting, as well as to develop projects on the reduction and compensation of emissions.</p>	0%	Less than or equal to 10%	<p>The Climate Change Dimension of the Corporate Sustainability Index (ISE) is also encouraging the emissions inventories' development and disclosure, as well as emissions reductions. The questionnaire also contains questions on whether companies compensate their emissions, have targets for reduction or use an internal price of carbon in any of its projects, product line or investments decision making process. By using this</p>

Level of aggregation	Description of product/Group of products	Are you reporting low carbon products or avoided emissions?	Taxonomy, project or methodology used to classify products as low carbon or to calculate avoided emissions	% revenue from low carbon products in the reporting year	% R&D in low carbon products in the reporting year	Comment
						<p>approach BM&FBO VESPA hopes to prepare participating companies for the competitive in a low carbon economy. BM&FBO VESPA also hopes to provide the market with transparent information on emissions from Brazilian companies by creating investment opportunities for investors who are sensitive to climate issues.</p>
Product	<p>BM&FBOVESPA enable GHG emissions to be avoided by listed companies by promoting, inducing and assuring climate change best practice through the ICO2 (Carbon Efficient Index). More information can be found at http://www.bmfbovespa.com.br/en_us/products/indices/sustainability-indices/.</p>	Avoided emissions	Other: There isn't a unique methodology since ICO2 is composed by companies from	0%	Less than or equal to 10%	The main goal of the ICO2 Index is to measure the return of a theoretical portfolio consisting of shares

Level of aggregation	Description of product/Group of products	Are you reporting low carbon product/s or avoided emissions?	Taxonomy, project or methodology used to classify product/s as low carbon or to calculate avoided emissions	% revenue from low carbon product/s in the reporting year	% R&D in low carbon product/s in the reporting year	Comment
			<p>several sectors. With this initiative, BM&FBO VESPA is recognized to have an important role in stimulating companies to enhance their GHG emissions management and reporting, as well as to develop projects on the reduction and compensation of emissions.</p>			<p>from IBrX-50 companies which adhere to the ICO2 weighted by its free float factor and by those companies' emissions ratio. Before the creation of ICO2, only 30% of IBrX-50 public reported their emissions, today more than 60% reports their emissions, representing a great progress by the companies with regards to their internal carbon management. In 2016, 30 companies participated in the ICO2 process. Each year</p>

Level of aggregation	Description of product/Group of products	Are you reporting low carbon product/s or avoided emissions?	Taxonomy, project or methodology used to classify product/s as low carbon or to calculate avoided emissions	% revenue from low carbon product/s in the reporting year	% R&D in low carbon product/s in the reporting year	Comment
						<p>the Company assesses the minimum requirements related to GHG emissions inventories to be provided by participating companies. The minimum emission sources comprised by the initiative are gradually expanded, inducing participating companies to upgrade the quality and completeness of their inventories. By using this approach BM&FBO VESPA hopes to prepare participating companies for the competitive in a low</p>

Level of aggregation	Description of product/Group of products	Are you reporting low carbon product/s or avoided emissions?	Taxonomy, project or methodology used to classify product/s as low carbon or to calculate avoided emissions	% revenue from low carbon product/s in the reporting year	% R&D in low carbon product/s in the reporting year	Comment
						carbon economy. BM&FBO VESPA also hopes to provide the market with transparent information on emissions from Brazilian companies by creating investment opportunities for investors who are sensitive to climate issues.

CC3.3

Did you have emissions reduction initiatives that were active within the reporting year (this can include those in the planning and/or implementation phases)

Yes

CC3.3a

Please identify the total number of projects at each stage of development, and for those in the implementation stages, the estimated CO2e savings

Stage of development	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	5	0
To be implemented*	0	0
Implementation commenced*	0	0

Stage of development	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Implemented*	3	47.50
Not to be implemented	0	0

CC3.3b

For those initiatives implemented in the reporting year, please provide details in the table below

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
Energy efficiency: Building services	1 - Deactivation of some light fixtures and extra lamps on stairs of XV de Novembro and Praça Antônio Prado buildings, caused by the better LED's lighting.	2.06	Scope 2 (location-based)	Voluntary	7256	0	<1 year	Ongoing	
Energy efficiency: Building services	2- Replacement of the old incandescent lamps to new LED lamps in the stairs of Sites XV and Praça.	13.82	Scope 2 (location-based)	Voluntary	46713	71600	1-3 years	Ongoing	LED lamps consume less energy than conventional incandescent or fluorescent bulbs.
Energy efficiency: Building services	3 - Replacement of the old incandescent lamps to the new LED lamps on	31.62	Scope 2 (location-based)	Voluntary	111492	48532	<1 year	Ongoing	LED lamps consume less energy than conventional incandescent or

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
	the floors of Praça Antonio's, Rua XV de Novembro's and Florêncio de Abreu's building.								fluorescent bulbs.

CC3.3c

What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Other	Dedicated budget for infrastructure modernization: Funds come from the Building Administration Area through annual budget allocations.

Further Information

Page: CC4. Communication

CC4.1

Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s)

Publication	Status	Page/Section reference	Attach the document	Comment
In voluntary communications	Complete	The whole document related to climate change: http://www.bmfbovespa.com.br/en_us/about/sustainability/at-bmfbovespa/reports/greenhouse-gas-ghg-inventory.htm	https://www.cdp.net/sites/2017/35/22735/Climate Change 2017/Shared Documents/Attachments/CC 4.1/Question 4.1 (1).pdf	
In mainstream reports (including annual)	Underway - previous year	Pages 38 to 41: http://ir.bmfbovespa.com.br/enu/3245/RA2016_BMFBOVESPA_EN.pdf	https://www.cdp.net/sites/2017/35/22735/Climate Change 2017/Shared Documents/Attachments/CC 4.1/Question 4.1 (2).pdf	The company's Annual Report

Publicati on	Statu s	Page/Section reference	Attach the document	Com ment
integrate d report) in accordance with the CDSB Framework	attac hed			t always presents the emissions of the previous year. The deadline for the report release is always before the schedule of preparing and auditing the GHG Emissions Inventory.
In voluntary communications	Unde rway - previous year attached	Page 1: http://www.bmfbovespa.com.br/en_us/products/indices/sustainability-indices/carbon-efficient-index-ico2.htm	https://www.cdp.net/sites/2017/35/22735/Climate Change 2017/Shared Documents/Attachments/CC 4.1/Question 4.1 (3).JPG	
In voluntary communications	Unde rway - previous year attached	Page 1: https://www.registropublicoemissoes.com.br/participantes/2073	https://www.cdp.net/sites/2017/35/22735/Climate Change 2017/Shared Documents/Attachments/CC 4.1/Question 4.1 (4).pdf	
In voluntary communications	Unde rway - previous year attached	Page 1: http://www.sseinitiative.org/wp-content/uploads/2016/07/BMFBOVESPA-Communication-to-Stakeholders-July2016-1.pdf	https://www.cdp.net/sites/2017/35/22735/Climate Change 2017/Shared Documents/Attachments/CC 4.1/Question 4.1 (5).pdf	

Further Information

Module: Risks and Opportunities

Page: CC5. Climate Change Risks

CC5.1

Have you identified any inherent climate change risks that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

Risks driven by changes in regulation

Risks driven by changes in physical climate parameters

Risks driven by changes in other climate-related developments

CC5.1a

Please describe your inherent risks that are driven by changes in regulation

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
International agreements	This consideration is based on risk analysis of BM&FBOV ESPA's trades in congruence with the likely political and regulatory developments of impacts of climate change on the global market. In the end of 2015, Brazil presented at COP 21 its Intended Nationally Determined Contributions (INDC), in which the Brazilian Government stipulated an absolute	Reduced demand for goods/services	>6 years	Indirect (Client)	About as likely as not	Medium	In this preliminary analysis, regulatory risks from climate change are considered indirect. Given this, there is a complexity in anticipating the potential financial implications of the risk listed.	Through an analysis of the companies listed on the Exchange, we could identify companies in critical sectors as regards climate change i.e. agribusiness, energy, mining, steel and oil and gas. Therefore, one of the regulatory risk management methods focuses on monitoring of laws and national	The methods for managing regulatory risks described entail a cost to the company. However, since they were not developed exclusively for risk mitigation, they are still difficult to quantify.

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>target relative to 2005, to reduce GHG emissions by 37% in 2025 and 43% in 2030 if a new commitment period under the Kyoto Protocol is agreed upon between the parties whereby the Annex II countries set goals to reduce GHG emissions and are under commitment. This national target may split in sectorial regulatory targets for emissions reduction, which may result in changing the competitiveness of the domestic market against the international market, as such measures would lead to higher costs in the operations of the companies affected, and could</p>							<p>and international agreements involving regulatory measures that might eventually focus on two main issues: emissions taxation and/or creation of a cap-and-trade market which might or might not be tied to binding reduction targets. Another method used by the Exchange is the development of products, events and availability of materials related to climate change to familiarize its customers and prepare them for possible laws and/or agreements. As an example of this, we can cite the ICO2 and ISE indexes,</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	eventually have some sort of impact on the value and liquidity of their shares.							several published educational materials, workshops, and direct interaction with government agencies. Moreover, at the present moment, the Legal department is responsible for monitoring the regulations that might affect the company and form work groups amongst the involved areas to define actions that might be needed to be compliant to the rules. The compliance department is responsible to assess in all the regulatory spheres those rules that might not have been identified as	

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								applicable for BM&FBO VESPA within the regulatory framework available, and take actions on those that the company is not adherent.	
Carbon taxes	This consideration is based on risk analysis of BM&FBOV ESPA's trades in congruence with the likely political and regulatory developments of impacts of climate change on the global market. On a national scale, a trend is observed toward carbon pricing through various mechanisms, with a clearer interest in market pricing mechanisms either on a state or national level. However, in the case of São	Reduced demand for goods/services	3 to 6 years	Indirect (Client)	About as likely as not	Medium	In this preliminary analysis, regulatory risks from climate change are considered indirect. Given this, there is a complexity in anticipating the potential financial implications of the risk listed.	Through an analysis of the companies listed on the Exchange, we could identify companies in critical sectors as regards climate change i.e. agribusiness, energy, mining, steel and oil and gas. Therefore, one of the regulatory risk management methods focuses on monitoring of laws and national and international agreements involving regulatory measures	The methods for managing regulatory risks described entail a cost to the company. However, since they were not developed exclusively for risk mitigation, they are still difficult to quantify.

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>Paulo State, which boasts the largest concentration of companies in Brazil, public fees and taxes are mentioned as viable options for carbon pricing. Law No. 13.798 enacted in São Paulo State, which sets forth the State Policy on Climate Change, stipulates: Article 22 – For the purpose of this Act, the Executive Power shall: II - Set public fees, tariffs, taxes and other types of charges for business activities releasing greenhouse gases. An eventual imposition of regulatory government fees and taxes on GHG emissions may result in changing the</p>							<p>that might eventually focus on two main issues: emissions taxation and/or creation of a cap-and-trade market which might or might not be tied to binding reduction targets. Another method used by the Exchange is the development of products, events and availability of materials related to climate change to familiarize its customers and prepare them for possible laws and/or agreements. As an example of this, we can cite the ICO2 and ISE indexes, several published educational materials, workshops, and</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>competitiveness of the domestic market against the international market, as such measures would lead to higher costs in the operations of the companies affected, and could eventually have some sort of impact on the value and liquidity of their shares.</p>							<p>direct interaction with government agencies. Moreover, at the present moment, the Legal department is responsible for monitoring the regulations that might affect the company and form work groups amongst the involved areas to define actions that might be needed to be compliant to the rules. The compliance department is responsible to assess in all the regulatory spheres those rules that might not have been identified as applicable for BM&FBO VESPA within the regulatory framework</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								available, and take actions on those that the company is not adherent.	
Cap and trade schemes	This consideration is based on risk and trades in congruence with the likely political and regulatory developments of impacts of climate change on the global market. On a national scale, a trend is observed toward carbon pricing through various mechanisms, with a clear interest in evaluating the feasibility of market pricing mechanisms either on a state or national level. These markets are necessarily tied to a binding target, as stipulated in São Paulo State	Reduced demand for goods/services	3 to 6 years	Indirect (Client)	About as likely as not	Medium	In this preliminary analysis, regulatory risks from climate change are considered indirect. Given this, there is a complexity in anticipating the potential financial implications of the risk listed.	Through an analysis of the companies listed on the Exchange, we could identify companies in critical sectors as regards climate change i.e. agribusiness, energy, mining, steel and oil and gas. Therefore, one of the regulatory risk management methods focuses on monitoring of laws and national and international agreements involving regulatory measures that might eventually focus on two main issues: emissions taxation	The methods for managing regulatory risks described entail a cost to the company. However, since they were not developed exclusively for risk mitigation, they are still difficult to quantify.

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>laws and in the national Law No. 12.187/2009 - National Policy on Climate Change (PNMC), although the obligation of a national target is still under debate. An eventual imposition of regulatory targets for emissions reduction may result in changing the competitiveness of the domestic market against the international market, if not well implemented. In that case, measures could lead to higher costs in the operations of the companies affected, and could eventually have some sort of impact on the value and liquidity of their shares.</p>							<p>and/or creation of a cap-and-trade market which might or might not be tied to binding reduction targets. Another method used by the Exchange is the development of products, events and availability of materials related to climate change to familiarize its customers and prepare them for possible laws and/or agreements. As an example of this, we can cite the ICO2 and ISE indexes, several published educational materials, workshops, and direct interaction with government agencies. Moreover,</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								<p>at the present moment, the Legal department is responsible for monitoring the regulations that might affect the company and form work groups amongst the involved areas to define actions that might be needed to be compliant to the rules. The compliance department is responsible to assess in all the regulatory spheres those rules that might not have been identified as applicable for BM&FBO VESPA within the regulatory framework available, and take actions on those that the company</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								is not adherent.	

CC5.1b

Please describe your inherent risks that are driven by changes in physical climate parameters

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Induced changes in natural resources	Shortage of natural resources affecting BM&FBOV ESPA's critical operations: The reduction of available natural resources such as energy and water is a climate change effect due to extreme droughts and precipitation significant variations. Mandatory rationing or lack of supply of energy and water could affect the continuity of business, especially if there isn't appropriate contingency	Inability to do business	>6 years	Direct	Unlikely	High	According to BM&FBOV ESPA Risk Analysis Matrix this is a high impact risk. The company methodology determines the impact based on qualitative and quantitative criteria.	Water scarcity is a factor related to the business continuity of BM&FBO VESPA and is managed by the competent technical area, the Office of Engineering and Building Management (linked to the financial direction). The water consumption monitoring is carried out following an internal procedure for daily management of the levels of water storage tanks. Due to the water	Due to decreased likelihood of this risk and, consequently, the actions focused directly on this issue, it is difficult to quantify its cost management.

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	strategies in place.							crisis in 2014, the water storage tanks of the buildings Antonio Prado Square and November XV were expanded in 25 and 50 m3, respectively. In case there is no water supply in the future, the Exchange has a procedure in place to trigger suppliers and buy drinking water. Today the situation is normalized.	
Change in mean (average) temperature	This consideration is based on risk analysis of BM&FBOV ESPA's trades regarding the physical impacts of a change in the average temperature in Brazil on the country's agriculture and consequently on the	Reduced demand for goods/services	Unknown	Indirect (Client)	About as likely as not	Medium-high	Since this is an indirect risk and the uncertainties involved are large, it becomes very difficult to estimate quantitatively the potential financial implications for the company. This consideration is based on risk	Among the tools the agribusiness sector, that participate in the Exchange, could use to mitigate or adapt to the risks related to price fluctuations are the hedging transactions (i.e. price	The risk management methods for climate events described above entail a cost to the company, but it is very difficult to estimate.

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>commodities trading market. The main agricultural commodities traded on BM&FBOV ESPA are Coffee, Corn, Soybean, Live Cattle and Ethanol. It should be noted that these commodities are from the agricultural sector, which is very likely to be affected by physical events of climate change. Therefore, the impacts may influence the price of such commodities and eventually increase the demand for the risk management instruments traded on the Exchange.</p>						<p>analysis of BM&FBOV ESPA's trades regarding the possible physical impacts of a climate change on the commodities trading market.</p>	<p>setting) through derivatives contracts. In this respect, BM&FBOV ESPA offers agribusiness market participants the possibility to trade futures and options contracts.</p>	
Change in mean (average) precipitation	<p>This consideration is based on risk analysis of BM&FBOV ESPA's trades</p>	<p>Reduced demand for goods/services</p>	<p>Unknown</p>	<p>Indirect (Client)</p>	<p>About as likely as not</p>	<p>Medium-high</p>	<p>Since this is an indirect risk and the uncertainties involved are large, it becomes</p>	<p>Among the tools the agribusiness sector, that participate in the</p>	<p>The risk management methods for climate events described</p>

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>regarding the physical impacts of a change in the average rainfall in Brazil on the country's agriculture and consequently on the commodities trading market. The main agricultural commodities traded on BM&FBOV ESPA are Coffee, Corn, Soybean, Live Cattle and Ethanol. It should be noted that these commodities are from the agricultural sector, which is very likely to be affected by physical events of climate change. Therefore, the impacts may influence the price of such commodities and eventually increase the demand for the risk management</p>						<p>very difficult to estimate quantitatively the potential financial implications for the company. This consideration is based on risk analysis of BM&FBOV ESPA's trades regarding the possible physical impacts of a climate change on the commodities trading market.</p>	<p>Exchange, could use to mitigate or adapt to the risks related to price fluctuations are the hedging transactions (i.e. price setting) through derivatives contracts. In this respect, BM&FBOV ESPA offers agribusiness market participants the possibility to trade futures and options contracts.</p>	<p>above entail a cost to the company, but it is very difficult to estimate.</p>

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	nt instruments traded on the Exchange.								
Change in precipitation pattern	This consideration is based on risk analysis of BM&FBOV ESPA's trades regarding the physical impacts of a change in the average rainfall in Brazil on the country's agriculture and consequently on the commodities trading market. The main agricultural commodities traded on BM&FBOV ESPA are Coffee, Corn, Soybean, Live Cattle and Ethanol. It should be noted that these commodities are from the agricultural sector, which is very likely to be affected by physical events of climate change.	Reduced demand for goods/services	Unknown	Indirect (Client)	About as likely as not	Medium-high	Since this is an indirect risk and the uncertainties involved are large, it becomes very difficult to estimate quantitatively the potential financial implications for the company. This consideration is based on risk analysis of BM&FBOV ESPA's trades regarding the possible physical impacts of a climate change on the commodities trading market.	Among the tools the agribusiness sector, that participate in the Exchange, could use to mitigate or adapt to the risks related to price fluctuations are the hedging transactions (i.e. price setting) through derivatives contracts. In this respect, BM&FBOV ESPA offers agribusiness market participants the possibility to trade futures and options contracts.	The risk management methods for climate events described above entail a cost to the company, but it is very difficult to estimate.

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	Therefore, the impacts may influence the price of such commodities and eventually increase the demand for the risk management instruments traded on the Exchange.								

CC5.1c

Please describe your inherent risks that are driven by changes in other climate-related developments

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Changing consumer behavior	This risk arises from the influence of climate change impacts on the cultural transformation of citizens and society. This perspective is reaffirmed through surveys and by popular demand from those participating in the	Reduced demand for goods/services	3 to 6 years	Direct	About as likely as not	Medium-high	The financial impact of this risk is difficult to measure, since it is related to social behavior, namely, an intangible value. To make a quantitative estimate the adoption of several	In order to manage this risk, BM&FBOV ESPA has an active and engaging position through the creation of sustainable focused products and services, such as the Corporate Sustainability Index (ISE) and the Carbon Efficient Index (ICO2).	This risk arises from the influence of climate change impacts on the cultural transformation of citizens and society. Risk management methods from changing customer habits as described above entail a cost to

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>last COP Meetings. In 22 April 2016 175 parties (174 countries and the European Union) had signed the Paris Agreement, compromising themselves to reduce and report regularly on their emissions and on their implementation efforts. This important step on international agreement demonstrate the global climate change concern. Therefore, there are risks associated with certain aspects of the market through socially and environmentally responsible choices and attitudes</p>						<p>assumptions would be required and it would not accurately reflect the reality. In fact, changes in consumption pattern and behavior should bring about – and this has already been taking place – an updating of listed companies as old businesses may disappear and new businesses may emerge and join the Exchange.</p>	<p>Moreover, the “Report or Explain” initiative also stimulated the dissemination of sustainability best practices between the companies listed. Besides that, the BM&FBOV ESPA Institute of Education (IE), created in 1987, offers courses and trainings for the stakeholders – specially the investors and professionals that wants to work at the financial and capital market, which includes sustainability modules in some of them. The IE majored more than 50 thousand of students directly and attended more than 4 million</p>	<p>the company, but it is very difficult to estimate.</p>

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	of institutions.							on its programs of financial education for the capital market, which makes the Institute a reference in the financial segment. Also, the IE offers professional certificates solutions and in company programs, elaborated in a personalized way in accordance with the need of the client.	

Further Information

Page: CC6. Climate Change Opportunities

CC6.1

Have you identified any inherent climate change opportunities that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

- Opportunities driven by changes in regulation
- Opportunities driven by changes in other climate-related developments

CC6.1a

Please describe your inherent opportunities that are driven by changes in regulation

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
International agreements	BM&FBOV ESPA identifies that its main opportunity arising from climate change regulations is available through the institutionalization of the Carbon Market and other environmental asset-related markets/instruments, which in the long term can bring financial gains to the institution if Brazil and Brazilian companies set some kind of target for GHG emissions reduction.	New products/business services	3 to 6 years	Direct	About as likely as not	Medium	These are opportunities whose potential financial implications are difficult to measure, since they are related to an intangible value, namely Cap and trade schemes. To make a quantitative estimate, the adoption of several assumptions would be required and it would not necessarily reflect the reality.	Within the Carbon Market institutionalization process, in 2010, BM&FBOV ESPA, in partnership with the World Bank and FINEP - Brazilian Studies and Projects Financing Agency, organized a program involving studies on the carbon market as well as training seminars for market agents and dissemination of the carbon market. In 2011, BM&FBOV ESPA partnered with Interamerican Bank (IDB) in order to coordinate a study related to pre-compliance market in Brazil. Another initiative undertake	The methods identified to make use of the opportunities arising from climate change regulations do lead to an increase in the internal costs to the company, but it is very difficult to quantify.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								n by BM&FBO VESPA is the creation of a carbon auction platform, which also includes the so-called voluntary or non-regulated market, in which the regulated market framework can be used to create and structure the market for buying and selling emission reduction certificates outside the Kyoto Protocol protocols.	
Cap and trade schemes	BM&FBO VESPA identifies that its main opportunity arising from climate change regulations is available through the institutionalization of the Carbon Market and other environmental asset-	New products/business services	3 to 6 years	Direct	About as likely as not	Medium	These are opportunities whose potential financial implications are difficult to measure, since they are related	Within the Carbon Market institutionalization process, in 2010, BM&FBO VESPA, in partnership with the World Bank and FINEP - Brazilian Studies and Projects	The methods identified to make use of the opportunities arising from climate change regulations do lead to an increase

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>related markets/instruments, which in the long term can bring financial gains to the institution if Brazil and Brazilian companies set some kind of target for GHG emissions reduction. On a national scale, a trend is observed toward carbon pricing through various mechanisms, with a clearer interest in market pricing mechanisms either on a state or national level. These markets are necessarily tied to a binding target, as stipulated in São Paulo State laws and in the National Policy on Climate Change (PNMC), although a mandatory national</p>						<p>to an intangible value, namely Cap and trade schemes. To make a quantitative estimate, the adoption of several assumptions would be required and it would not necessarily reflect the reality.</p>	<p>Financing Agency, organized a program involving studies on the carbon market as well as training seminars for market agents and dissemination of the carbon market. In 2011, BM&FBO VESPA partnered with the Interamerican Bank (IDB) in order to coordinate a study related to pre-compliance market in Brazil. Another initiative undertaken by BM&FBO VESPA is the creation of a carbon auction platform, which also includes the so-called voluntary or non-regulated market, in which the</p>	<p>in the internal costs to the company, but it is very difficult to quantify.</p>

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	target is still under debate.							regulated market framework can be used to create and structure the market for buying and selling emission reduction certificates outside the Kyoto Protocol protocols.	
General environmental regulations, including planning	New opportunities may arise from the regulation created by the State Government of São Paulo regarding the CRA (Environmental Reserve Certificate). CRA issuance was a legal framework generically allowed by the most recent law for Forests in Brazil, but only in 2015 it was infra regulated by a Federation State.	New products/business services	Unknown	Direct	About as likely as not	Medium	There isn't measurement on the estimation of incomes or expenses in relation to this potential product, once the financial and capital market regulators is (Central Bank and Brazilian Securities Commission CVM) haven't pronounced about	BM&FBO VESPA actively participates on several forums for discussion of the issue including governmental, trade unions, environmental and capital markets ones. Based on this continuous market reading, the company constantly evaluate the opportunities in place.	At this time, it's difficult to quantify any cost associated with this initiatives.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
							the subject yet.		

CC6.1c

Please describe your inherent opportunities that are driven by changes in other climate-related developments

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Reputation	BM&FBO VESPA identifies that another opportunity related to climate change stems from its reputation, especially as regards its position and engagement role in the dissemination of concepts related to the climate change issue, involving companies and consequently the market.	New products/business services	3 to 6 years	Direct	About as likely as not	Medium	These are opportunities whose potential financial implications are difficult to measure, since they are related to an intangible value, namely, social behavior and a corporation's reputation. To make a quantitative estimate, the adoption of several assumptions would be required.	BM&FBO VESPA believes that an opportunity to address climate change comes with its role of a sustainability booster, as it was the 1st exchange in the world to be a Global Compact signatory and the 1st in emerging markets to sign up to the Principles for Responsible Investment (PRI), a UN initiative covering large asset managers	The methods identified to make use of those opportunities do lead to an increase in the internal costs to the company, but it is very difficult to quantify.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
							<p>d and it would not necessarily reflect the reality.</p>	<p>and other financial agents. In addition of inspiring investors to join the PRI, the exchange also suggests that listed companies on its equity segments report on socio-environmental issues. BM&FBO VESPA also belongs as a founding member to the Sustainable Stock Exchanges (SSE), which fosters a sustainability agenda among exchanges and listed companies worldwide and is a member of the Sustainable Working Group (SWG) at the World Federation of Exchanges that aims to address ESG</p>	

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								<p>concerns and tries and to build consensus among its members. Furthermore, BM&FBO VESPA launches its Annual Report according to GRI G4 guidelines covering both financial and non-financial data in one report, encouraging listed companies to do as well and analysts and investors to include ESG issues when assessing share prices. In line with the integrating reporting international trend, in 2014 the "Report or Explain" previously focused on Sustainability Reports, had its scope expanded to</p>	

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								Integrated Reports. BM&FBO VESPA fosters the International Integrated Reporting Council with support dating back to the trend's start, when BM&FBO VESPA hosted a visit of its board to Brazil in 2011.	
Changing consumer behavior	This opportunity arises from the influence of climate change impacts on the cultural transformation of citizens and society. This perspective is reaffirmed through surveys and by popular demand from those participating in four COP Meetings (COP-15, COP-16, COP-17 COP-18	Increased demand for existing products/services	Unknown	Direct	About as likely as not	Medium-high	These are opportunities whose potential financial implications are difficult to measure, since they are related to an intangible value, namely, social behavior and a corporation's reputation. To make a quantitative estimate, the	BM&FBO VESPA identifies that an opportunity to address climate change stems from its position and engaging role in the dissemination of sustainable concepts involving companies and consequently the market. The environmental indexes created by BM&FBO VESPA are:	The methods identified to make use of those opportunities do lead to an increase in the internal costs to the company, but it is very difficult to quantify.

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>and COP-21). Therefore, there are opportunities associated with certain aspects of the market through socially and environmentally responsible choices and attitudes of institutions.</p>						<p>adoption of several assumptions would be required and it would not necessarily reflect the reality.</p>	<p>Corporate Sustainability Index – ISE and Carbon Efficient Index - ICO2. Besides that, the BM&FBO VESPA Institute of Education (IE), created in 1987, offers courses and trainings for the stakeholders – specially the investors and professionals that wants to work at the financial and capital market, which includes sustainability modules in some of them. The IE majored more than 50 thousand of students directly and attended more than 4 million on its programs of financial education</p>	

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								for the capital market, which makes the Institute a reference in the financial segment. Also, the IE offers professional certificates solutions and in company programs, elaborated in a personalized way in accordance with the need of the client.	

CC6.1e

Please explain why you do not consider your company to be exposed to inherent opportunities driven by changes in physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

Climate events such as fluctuations in temperature, heavy rains and droughts are some of the factors that can affect the harvesting each year and consequently the market price of agricultural commodities. The main agricultural commodities traded on BM&FBOVESPA are Coffee, Corn, Soybean, Live Cattle and Ethanol. It should be noted that these commodities are from the agricultural sector, which is very likely to be affected by physical events of climate change. Therefore, the negative impacts may influence the price of such commodities and eventually increase the demand for the risk management instruments traded on the Exchange. Furthermore, the Exchange launched the trading of hydrated ethanol and soybean contracts with cash settlement in May 2010 and January 2011 respectively. BM&FBOVESPA do recognise that opportunities can also exist, since the expected changes in the climate could lead to an increase in productivity but they're estimated to be minor for the mentioned commodities. Among the tools that the agribusiness sector adopts to prevent risks related to price fluctuation, the hedging transactions (i.e. price setting) is an important one, through the derivatives contracts. In this respect, BM&FBOVESPA offers agribusiness market participants the possibility to trade futures and options contracts.

Further Information

Module: GHG Emissions Accounting, Energy and Fuel Use, and Trading

Page: CC7. Emissions Methodology

CC7.1

Please provide your base year and base year emissions (Scopes 1 and 2)

Scope	Base year	Base year emissions (metric tonnes CO2e)
Scope 1	Fri 01 Jan 2010 - Fri 31 Dec 2010	155.57
Scope 2 (location-based)	Fri 01 Jan 2010 - Fri 31 Dec 2010	1024.10
Scope 2 (market-based)	Fri 01 Jan 2010 - Fri 31 Dec 2010	0

CC7.2

Please give the name of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

Please select the published methodologies that you use
Brazil GHG Protocol Programme
Defra Voluntary Reporting Guidelines
IPCC Guidelines for National Greenhouse Gas Inventories, 2006
ISO 14064-1
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
Other

CC7.2a

If you have selected "Other" in CC7.2 please provide details of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

- Brazilian Energy Balance - Year 2016 – published by the Energy & Mining Ministry and Energy Research Company;
- MCTI – Science, Technology and Innovation Ministry.

CC7.3

Please give the source for the global warming potentials you have used

Gas	Reference
CH4	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	IPCC Fourth Assessment Report (AR4 - 100 year)
HFCs	IPCC Fourth Assessment Report (AR4 - 100 year)
CO2	IPCC Fourth Assessment Report (AR4 - 100 year)

CC7.4

Please give the emissions factors you have applied and their origin; alternatively, please attach an Excel spreadsheet with this data at the bottom of this page

Fuel/Material/Energy	Emission Factor	Unit	Reference
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Further Information

The attachment refers to question CC7.4 (PDF and Excel).

Attachments

[https://www.cdp.net/sites/2017/35/22735/Climate_Change_2017/Shared_Documents/Attachments/ClimateChange2017/CC7.EmissionsMethodology/Question 7.4.xlsx](https://www.cdp.net/sites/2017/35/22735/Climate_Change_2017/Shared_Documents/Attachments/ClimateChange2017/CC7.EmissionsMethodology/Question_7.4.xlsx)
[https://www.cdp.net/sites/2017/35/22735/Climate_Change_2017/Shared_Documents/Attachments/ClimateChange2017/CC7.EmissionsMethodology/Question 7.4.pdf](https://www.cdp.net/sites/2017/35/22735/Climate_Change_2017/Shared_Documents/Attachments/ClimateChange2017/CC7.EmissionsMethodology/Question_7.4.pdf)

Page: CC8. Emissions Data - (1 Jan 2016 - 31 Dec 2016)

CC8.1

Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory

Operational control

CC8.2

Please provide your gross global Scope 1 emissions figures in metric tonnes CO₂e

860.10

CC8.3

Please describe your approach to reporting Scope 2 emissions

Scope 2, location-based	Scope 2, market-based	Comment
We are reporting a Scope 2, location-based figure	We have no operations where we are able to access electricity supplier emissions factors or residual emissions factors and are unable to report a Scope 2, market-based figure	BM&FBOVESPA purchases all the Energy from National Interconnected System. This energy is provided through the National Grid.

CC8.3a

Please provide your gross global Scope 2 emissions figures in metric tonnes CO₂e

Scope 2, location-based	Scope 2, market-based (if applicable)	Comment
2201.05		Scope 2, market-based is not applicable.

CC8.4

Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

No

CC8.5

Please estimate the level of uncertainty of the total gross global Scope 1 and 2 emissions figures that you have supplied and specify the sources of uncertainty in your data gathering, handling and calculations

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 1	Less than or equal to 2%	Assumptions	Most activity data were obtained from accurate sources.
Scope 2 (location-based)	More than 2% but less than or equal to 5%	Data Gaps Extrapolation	Most activity data were obtained from accurate sources. There is no available data for the electricity consumption at the international offices. Therefore, the energy consumption was estimated.
Scope 2 (market-based)			Scope 2, market-based is not applicable.

CC8.6

Please indicate the verification/assurance status that applies to your reported Scope 1 emissions

Third party verification or assurance process in place

CC8.6a

Please provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements

Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/section reference	Relevant standard	Proportion of reported Scope 1 emissions verified (%)
Annual process	Complete	Reasonable assurance	https://www.cdp.net/sites/2017/35/22735/Climate Change 2017/Shared Documents/Attachments/CC8.6a/Third Part Verification.zip	Whole document	Other: ISO 14065:2013 / ISO 14064-3:2006 - Part 3 / Brazilian GHG Protocol Programme Specifications Verification - 2011 Edition / Brazilian GHG Protocol Programme Specifications - 2nd Edition /	100

Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/section reference	Relevant standard	Proportion of reported Scope 1 emissions verified (%)
					World Resources Institute – GHG Protocol (2004) / GHG Protocol Tool v2017.3.1	

CC8.7

Please indicate the verification/assurance status that applies to at least one of your reported Scope 2 emissions figures

Third party verification or assurance process in place

CC8.7a

Please provide further details of the verification/assurance undertaken for your location-based and/or market-based Scope 2 emissions, and attach the relevant statements

Location-based or market-based figure?	Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 2 emissions verified (%)
Location-based	Annual process	Complete	Reasonable assurance	https://www.cdp.net/sites/2017/35/22735/Climate Change 2017/Shared Documents/Attachments/CC8.7a/Third Part Verification.zip	Whole document	Other: ISO 14065:2013 / ISO 14064-3:2006 - Part 3 / Brazilian GHG Protocol Programme Specifications	100

Location-based or market-based figure?	Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 2 emissions verified (%)
						Verification - 2011 Edition / Brazilian GHG Protocol Programme Specifications - 2nd Edition / World Resources Institute – GHG Protocol (2004) / GHG Protocol Tool v2017.3.1	

CC8.8

Please identify if any data points have been verified as part of the third party verification work undertaken, other than the verification of emissions figures reported in CC8.6, CC8.7 and CC14.2

Additional data points verified	Comment
No additional data verified	

CC8.9

Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?

Yes

CC8.9a

Please provide the emissions from biologically sequestered carbon relevant to your organization in metric tonnes CO2

458.50

Further Information

CC9.1

Do you have Scope 1 emissions sources in more than one country?

No

CC9.2

Please indicate which other Scope 1 emissions breakdowns you are able to provide (tick all that apply)

By GHG type

CC9.2c

Please break down your total gross global Scope 1 emissions by GHG type

GHG type	Scope 1 emissions (metric tonnes CO2e)
CO2	167.37
CH4	0.63
N2O	0.61
HFCs	691.49

Further Information

CC10.1

Do you have Scope 2 emissions sources in more than one country?

Yes

CC10.1a

Please break down your total gross global Scope 2 emissions and energy consumption by country/region

Country/Region	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
Brazil	2184.34	0	26309.85	0
United States of America	5.27	0	10.26	0
United Kingdom	4.23	0	10.26	0
China	7.22	0	10.26	0

CC10.2

Please indicate which other Scope 2 emissions breakdowns you are able to provide (tick all that apply)

Further Information

Page: CC11. Energy

CC11.1

What percentage of your total operational spend in the reporting year was on energy?

More than 0% but less than or equal to 5%

CC11.2

Please state how much heat, steam, and cooling in MWh your organization has purchased and consumed during the reporting year

Energy type	MWh
Heat	0
Steam	0
Cooling	0

CC11.3

Please state how much fuel in MWh your organization has consumed (for energy purposes) during the reporting year

697.51

CC11.3a

Please complete the table by breaking down the total "Fuel" figure entered above by fuel type

Fuels	MWh
Motor gasoline	20.29
Natural gas	38.15
Biodiesels	38.75
Diesel/Gas oil	551.39
Liquefied petroleum gas (LPG)	26.38
Other: Ethanol	22.55

CC11.4

Please provide details of the electricity, heat, steam or cooling amounts that were accounted at a low carbon emission factor in the market-based Scope 2 figure reported in CC8.3a

Basis for applying a low carbon emission factor	MWh consumed associated with low carbon electricity, heat, steam or cooling	Emissions factor (in units of metric tonnes CO2e per MWh)	Comment
No purchases or generation of low carbon electricity, heat,	0	0	

Basis for applying a low carbon emission factor	MWh consumed associated with low carbon electricity, heat, steam or cooling	Emissions factor (in units of metric tonnes CO2e per MWh)	Comment
steam or cooling accounted with a low carbon emissions factor			

CC11.5

Please report how much electricity you produce in MWh, and how much electricity you consume in MWh

Total electricity consumed (MWh)	Consumed electricity that is purchased (MWh)	Total electricity produced (MWh)	Total renewable electricity produced (MWh)	Consumed renewable electricity that is produced by company (MWh)	Comment
26340.64	26340.64	0	0	0	

Further Information

Page: CC12. Emissions Performance

CC12.1

How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to the previous year?

Decreased

CC12.1a

Please identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined) and for each of them specify how your emissions compare to the previous year

Reason	Emissions value (percentage)	Direction of change	Please explain and include calculation
Emissions reduction activities	1.34	Decrease	Due to the emissions reduction activities presented in question CC3.3b (Deactivation of some light fixtures and extra lamps / Replacement of the old incandescent lamps to new LED lamps), there was a reduction of the consumption of electricity, which caused an emission's decrease $(-47.50/3,538.35 \times 100 = 1.34\%)$. CO2e Emission in 2015 (Scope 1 and 2) = 3,538.35 ton CO2e.
Divestment	0.29	Decrease	In 2015, BM&FBOVESPA discontinued its partnership in Bolsa Brasileira de Mercadorias (the Brazilian Commodities Exchange, or "BBM") and waived its rights as an equity holder. BBM's emissions were considered in the BM&FBOVESPA GHG Inventory until March 2015 when it was still part of the Group – total emissions considered 10.40 ton CO2e $(-10.40/3,538.35 \times 100 = 0.29\%)$. CO2e Emission in 2015 (Scope 1 and 2) = 3,538.35 ton CO2e.
Acquisitions			
Mergers			
Change in output			

Reason	Emissions value (percentage)	Direction of change	Please explain and include calculation
Change in methodology			
Change in boundary			
Change in physical operating conditions	31.00	Decrease	The increase of rain in 2016 contributed to a fall in the electricity emission factor, since the percentage of energy produced from thermoelectric plants decreased: $(-1,096.94/3,538.35 \times 100 = 31.00\%)$. Due to this, the total of Scope 2 emissions reduced. CO2e Emission in 2015 (Scope 1 and 2) = 3,538.35 ton CO2e.
Unidentified			
Other	15.54	Increase	In 2016, there was a greater need to replace refrigerant gases. The recharging of air conditioning and other refrigerating equipment is not constant and can vary from year to year, depending on the demand of use of the equipment: $(549.88/3,538.35 \times 100 = 15.54\%)$. Due to this, the fugitive emissions increased. CO2e Emission in 2015 (Scope 1 and 2) = 3,538.35 ton CO2e.

CC12.1b

Is your emissions performance calculations in CC12.1 and CC12.1a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

CC12.2

Please describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per unit currency total revenue

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator: Unit total revenue	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
0.000001188	metric tonnes CO2e	2576426000	Location-based	17	Decrease	The gross revenue increased around 5% and the total Scope 1 and 2 emissions had decreased 13%, which caused a reduction in the intensity.

CC12.3

Please provide any additional intensity (normalized) metrics that are appropriate to your business operations

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator or	Metric denominator: Unit total	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
1.202338	metric tonnes CO2e	full time equivalent (FTE) employee	2546	Location-based	23	Decrease	The total Scope 1 and 2 emissions had decreased 13% and the FTE increased in 12%. As the denominator gets larger, the emissions ratio gets smaller.

Further Information

Page: CC13. Emissions Trading

CC13.1

Do you participate in any emissions trading schemes?

No, and we do not currently anticipate doing so in the next 2 years

CC13.2

Has your organization originated any project-based carbon credits or purchased any within the reporting period?

Yes

CC13.2a

Please provide details on the project-based carbon credits originated or purchased by your organization in the reporting period

Credit origination or credit purchase	Project type	Project identification	Verified to which standard	Number of credits (metric tonnes CO2e)	Number of credits (metric tonnes CO2e): Risk adjusted volume	Credits canceled	Purpose, e.g. compliance
Credit purchase	Energy distribution	Celtins and Cemmat Grid Connection	CDM (Clean Development)	5402	5402	Not relevant	Voluntary Offsetting

Credit origination or credit purchase	Project type	Project identification	Verified to which standard	Number of credits (metric tonnes CO2e)	Number of credits (metric tonnes CO2e): Risk adjusted volume	Credits canceled	Purpose, e.g. compliance
		of Isolated Systems.	t Mechanism)				

Further Information

Page: CC14. Scope 3 Emissions

CC14.1

Please account for your organization's Scope 3 emissions, disclosing and explaining any exclusions

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Purchased goods and services	Not relevant, calculated	3.49	Emission factors according to IPCC.	100.00%	Emissions related to the motorcycle services purchased for document transportation.
Capital goods	Not relevant, explanation provided				BM&FBOVESPA did not purchase or acquire any relevant capital goods in 2016.
Fuel-and-energy-related activities (not included in Scope 1 or 2)	Not evaluated				
Upstream transportation and distribution	Not relevant, explanation provided				BM&FBOVESPA does not produce material goods. Therefore, the company doesn't purchase relevant raw materials quantities as an industry does, neither sells finished products to consumers.
Waste generated in operations	Not relevant, calculated	54.31	Emission factors according to IPCC.	100.00%	Emissions from the solid waste disposal in third party landfill and incineration.

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Business travel	Relevant, calculated	684.17	Emission factors according to Defra, based on the number of airline tickets issued and the flight distances. For emissions from taxi, emission factors according to IPCC were used.	100.00%	Emissions from taxi use and air travel of BM&FBOVESPA employees.
Employee commuting	Relevant, calculated	896.93	All employees take the survey periodically to supply data regarding their commuting, such as distance, type of transportation used and frequency.	100.00%	Emissions from transport of employees from home to work.
Upstream leased assets	Not relevant, explanation provided				BM&FBOVESPA has not leased assets that can generate significant emissions.
Downstream transportation and distribution	Not relevant, explanation provided				Once BM&FBOVESPA is not a production unit (the exchange does not produce finished products or goods), there is no relevant emission related to the transportation of products sold.
Processing of sold products	Not relevant, explanation provided				Once BM&FBOVESPA is not a production unit (the exchange does not produce finished products or goods), there is no emission related to the sold products processing.
Use of sold products	Not relevant, explanation provided				Once BM&FBOVESPA is not a production unit (the exchange does not produce finished products or goods), there is no emission related to the use of sold products.
End of life treatment of sold products	Not relevant, explanation provided				Once BM&FBOVESPA is not a production unit (the exchange does not produce finished products or goods),

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
					there is no emission related to the sold products' end of life treatment.
Downstream leased assets	Not relevant, explanation provided				BM&FBOVESPA has not leased assets that can generate significant emissions.
Franchises	Not relevant, explanation provided				BM&FBOVESPA does not have franchise operations.
Investments	Not evaluated				
Other (upstream)	Not relevant, calculated	82.66	Emission factors according to IPCC.	100.00%	Fugitive emissions from air conditioning not controlled by BM&FBOVESPA.
Other (downstream)	Not relevant, explanation provided				No other downstream emissions were identified.

CC14.2

Please indicate the verification/assurance status that applies to your reported Scope 3 emissions

Third party verification or assurance process in place

CC14.2a

Please provide further details of the verification/assurance undertaken, and attach the relevant statements

Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 3 emissions verified (%)
Annual process	Complete	Reasonable assurance	https://www.cdp.net/sites/2017/35/22735/Climate Change 2017/Shared Documents/Attachments/CC14.2a/Third Part Verification.zip	Whole document	Other: ISO 14065:2013 / ISO 14064-3:2006 - Part 3 / Brazilian GHG Protocol Programme	100

Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 3 emissions verified (%)
					Specifications Verification - 2011 Edition / Brazilian GHG Protocol Programme Specifications - 2nd Edition / World Resources Institute – GHG Protocol (2004) / GHG Protocol Tool v2017.3.1	

CC14.3

Are you able to compare your Scope 3 emissions for the reporting year with those for the previous year for any sources?

Yes

CC14.3a

Please identify the reasons for any change in your Scope 3 emissions and for each of them specify how your emissions compare to the previous year

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Purchased goods & services	Other: Reduction of kilometers traveled.	20	Decrease	The total number of kilometers traveled decreased, which consequently reduced the emissions.
Waste generated in operations	Other: Reduction of the total destined.	9	Decrease	The total waste disposal in kilograms decreased, which consequently reduced the emissions.
Business travel	Other: Reduction of taxi races and flights.	13	Decrease	There was a reduction in the number of taxi races and flights, which consequently decreased the emissions.

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Employee commuting	Change in methodology	4	Decrease	This reduction is linked to the improvement in the accounting of the displacements generated by the segregation of the modal "Train" and "Subway" in the survey "How do you come and return from work 2016".

CC14.4

Do you engage with any of the elements of your value chain on GHG emissions and climate change strategies? (Tick all that apply)

- Yes, our suppliers
- Yes, our customers
- Yes, other partners in the value chain

CC14.4a

Please give details of methods of engagement, your strategy for prioritizing engagements and measures of success

BM&FBOVESPA is committed to foster sustainability among shareholders, brokerage houses, listed companies, government, investors, analysts and suppliers. Most of its initiatives are focused on market participants due to their significant impact and also because of the Exchange's potential to influence their management practices.

The company's stakeholder engagement practice include educational campaigns, surveys, participations in associations and the sponsorship of discussion forums and sustainability initiatives. All actions are followed by the Exchange's Advisory Committees, formed by industry representatives and set up to build closer ties with the markets.

More details of value chain-oriented initiatives are presented below:

- Investor Briefing: in 2015 BM&FBOVESPA started to host meetings to promote a dialogue between companies and investors, creating a forum in which participants can share best practices, discuss the main sustainability trends and challenges, such as integrated reporting. The event of October 2016 was attended by the Brazilian financial community and also by more than 20 international investors connected by conference call, actively participating.
- Investor Briefing ESG BM&FBOVESPA: In 2016, BM&FBOVESPA held its first ESG (Environmental, Social and Corporate Governance) Investor Briefing. The event addressed the agenda of integrated initiatives promoted by the company on the economic, environmental, social and corporate governance fronts and was intended for investors and market analysts.
- 3º PRI APIMEC International Conference - LATAM ESG 2016: BM&FBOVESPA held for the 3rd time a conference promoted by the Principles for Responsible Investment (PRI) in partnership with the Brazilian Association of Capital Market Analysts and Investments Professionals (Apimec) to discuss how ESG issues have been included in investments analysis and decision making. The 2016 Edition, was named Integrating ESG factors into a changing economy.
- Report or Explain initiative - In 2012 BM&FBOVESPA started to recommend listed companies to state on whether or not they published a regular sustainability report. After 4 years of inducing ESG transparency, from 2016 on, listed companies will be required to inform if they publish socio-environmental information by the Regulator CVM (Brazilian Securities and Exchange Commission).
- In 2015, BM&BOVESPA introduced a socio-environmental questionnaire as part of the supplier approval procedure. The 16 topic survey form, drawn up by the Financial and the Sustainability areas, will have to be filled every year by strategic suppliers. For the non-critical and exclusive suppliers the questionnaire can be answered it on a two year basis. In the first compilation of responses, of 73 respondent respondents, 28 responded that they have an area or professional dedicated to social and environmental issues; 20 have a Sustainability Policy and 13 have a formalized Environmental Policy; 10 participate in external sustainability initiatives. (Examples: CDP Supply Chain, GRI, Global Compact, Innovation and Sustainability in the FGV Value Chain etc); 8 have some type of socio-environmental certification and 4 do Greenhouse Gas Emissions Inventory (GHG), of this total, 3 have reduction targets and offset their emissions.
- Carbon Efficient Index (ICO2) – Tracks the stocks of IBrX-50 companies that agree to participate and undertake to submit greenhouse gas inventory data for publication in the BM&FBOVESPA website.
- Corporate Sustainability Index (ISE) – Tracks the return on a portfolio of stocks issued by companies with

a recognized sustainability commitment. Launched in 2005, the ISE has become a benchmark for sustainable management practices in Brazil and worldwide. To get into the portfolio, Companies must complete a questionnaire of 7 sustainability dimensions, including climate change.

- State-Owned Enterprise Governance Program: launched in September 2015, it aims to improve corporate governance of state owned and mixed-capital enterprises by 4 main courses of action: Transparency; Internal Controls; Board composition and Obligation of the Public Controlling Shareholder. One of the courses of action is focus on the disclosure of information (transparency) where is a specific item for Integrated or Sustainability Report.

CC14.4b

To give a sense of scale of this engagement, please give the number of suppliers with whom you are engaging and the proportion of your total spend that they represent

Type of engagement	Number of suppliers	% of total spend (direct and indirect)	Impact of engagement
Other: Mapping of the socio-environmental engagement level of the supply chain	319	26%	BM&FBOVESPA applies a questionnaire in the process of procurement to map the socio-environmental practices of its suppliers. The questionnaire implementation is a result of the inclusion of other criteria besides economical evaluation in the company's Purchase Policy, as part of the sustainability and climate change strategy. The next step is to assess and analyze the suppliers' responses in order to find out the material issues with higher potential of development in the scope of the Exchange's suppliers activities. Subsequently it is expected to include these topics in thematic workshops that are planned to be implemented - an initiative that aims to improve engagement with this public. One of the questions asks if the company has a Greenhouse Gas (GHG) Emissions Inventory in place and whether it has reduction targets or compensate its emissions. The Exchange believes that getting to know its supply chain emissions and practices is the first step to identify gaps and develop proposals on how they can improve.

Further Information

Module: Sign Off

Page: CC15. Sign Off

CC15.1

Please provide the following information for the person that has signed off (approved) your CDP climate change response

Name	Job title	Corresponding job category
Sonia Aparecida Consiglio Favaretto	Media Relations, Sustainability, Communications and Social Investment Managing Director	Other: Media Relations, Sustainability, Communications and Social Investment Managing Director

Further Information