

THE FINANCIAL SYSTEM AND SUSTAINABILITY

Measuring financial resources for the green economy

August 2018

The financial sector is a key contributor in the transition from a carbon-intensive economy to a Green Economy. But in order to direct capital flows to activities that have a lower impact on the environment, first, it needs to implement a process to measure the volume of financing for the economic sectors where the customers operate – both for low carbon industries and for sectors with potential socio-environmental impact. Bearing this in mind, for the fourth consecutive year, FEBRABAN measured the financial resources allocated to these economic sectors in Brazil, along with the participation of financial institutions and the capital market.

This project kicked off in 2014 when FEBRABAN joined the United Nations Environment Programme (UNEP) called “Inquiry into the Design of a Sustainable Financial System”, which was created to channel intermediated capital through the international financial sector to accelerate the transition to a Green Economy.

Since that, the sector has taken steps in this direction by setting its sights on contributing to meeting the targets set by the country in the Paris Climate Agreement and to support the Sustainable Development Goals.

This measurement is also essential to enable the management of socio-environmental risks and the impacts of climate change on financing portfolios that could pose systemic risks to the global financial system if not properly managed.

In Brazil, one of the rewards that came out of the initiative was a partnership with the Getulio Vargas Foundation's Center for Sustainability Studies (FGVces), in conjunction with a Working Group that included representatives from banks, to draft a methodology to measure financial resources allocated to the Green Economy.

This publication presents the consolidated balance of total financing for legal entities in the representative sectors of the Green Economy up to December 31st, 2017 (outlined below), together with activities that could cause potential environmental impacts.

In 2018, fifteen financial institutions took part in the mensuration, representing 86.6% of the total balance of loans granted to companies by the Brazilian banking sector. With ANBIMA's participation in the study since 2017, the issuance of securities in the Brazilian capital market for the Green Economy sectors were also measured.

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Contribute to the economic, social and sustainable development of the country, representing its members and fostering the continuous improvement of the financial system and its relations with society



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Methodology

Newly enhanced, the methodology developed by FEBRABAN and FGVces is based on the identification of economic activities considered as Green Economy sectors by UNEP and activities that potentially causes socio-environmental impact, according to the Resolution 237/1997 of the National Environment Council (CONAMA). The National Classification of Economic Activities (CNAE) codes for the activities that comprise the mentioned sectors were also identified.

GREEN ECONOMY AND ITS SECTORS, ACCORDING TO UNEP

The Green Economy is the one that renders improved well-being for humanity and social equity while significantly reducing environmental risks and ecological scarcity, with the key pillars being low carbon emissions, efficiency in the use of resources and social inclusion. Those sectors are: Renewable energies, Energy efficiency*, Sustainable construction, Sustainable transport, Water, Fishing, Forestry, Sustainable agriculture, and Waste, along with specific agribusiness and social activities such as Education, Health, Productive Inclusion, and Regional Development.

SECTORS WITH ACTIVITIES THAT HAVE THE POTENTIAL TO CAUSE AN ENVIRONMENTAL IMPACT, ACCORDING TO CONAMA:

These are the sectors whose activities could have a potential socio-environmental impact and where risk management is essential in mitigating the negative effects of such activities, generally subject to enhanced diligence and risk analysis by banks. The most affected sectors are: The extraction and treatment of minerals; Industries involving non-metallic mineral products; Metallurgical; Mechanical, Electrical, electronic and communications equipment; Transportation material; Wood; Paper and cellulose; Rubber; Leather and hide industry; Chemical; Plastic products; Textile industry, involving clothing, footwear and fabrics; Food and beverage; Tobacco; Civil construction works; Utility services; Transportation, terminals and warehouses; Tourism; Agricultural activities and the Use of natural resources.

***Note:** Due to the scope of the topic, and because it is not connected to any specific branch of activity, it was not possible to identify the Energy Efficiency sector in the premises of this report.

RESULTS OF PORTFOLIO BALANCES

Bank financing for the Green Economy

Balances of credit portfolios (financing and loans) for sectors in the Green Economy on December 31st, 2017, was **R\$ 412,271 million**, that represents **27.6% of the total corporate portfolio** of the banks on the sample, which adds up to R\$ 1,495 billion.

For these sectors were added the financial volumes for specific products with socio-environmental purposes, as well as financing for best agricultural practices and low-carbon agriculture.

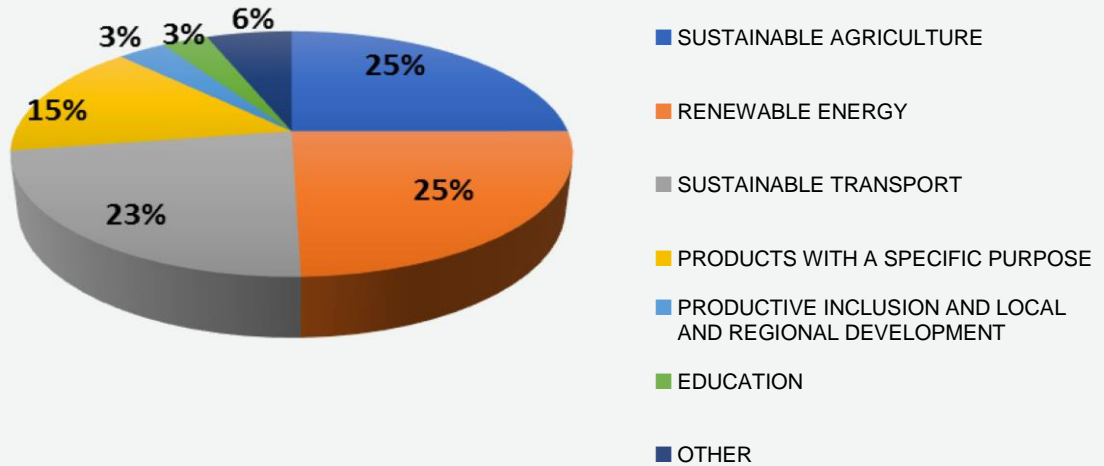
Allocation of financial resources by economic sectors

SECTORS	Balance in R\$ THOUSAND
SUSTAINABLE AGRICULTURE	102,991
RENEWABLE ENERGY*	101,324
SUSTAINABLE TRANSPORT	94,444
PRODUCTS WITH A SPECIFIC PURPOSE	62,520
PRODUCTIVE INCLUSION AND LOCAL AND REGIONAL DEVELOPMENT	13,669
EDUCATION	13,164
HEALTH	11,428
WATER	6,465
FORESTRY	3,087
WASTE EFFICIENCY	1,438
CITIES	962
FISHING	776
SUSTAINABLE TOURISM	4
TOTAL	412,271

* Assigned weighting of 77.10% representing non-emitting energy of CO₂, according to criteria by the ONS – National Power System Operator.

Representation of the Green Economy Sectors

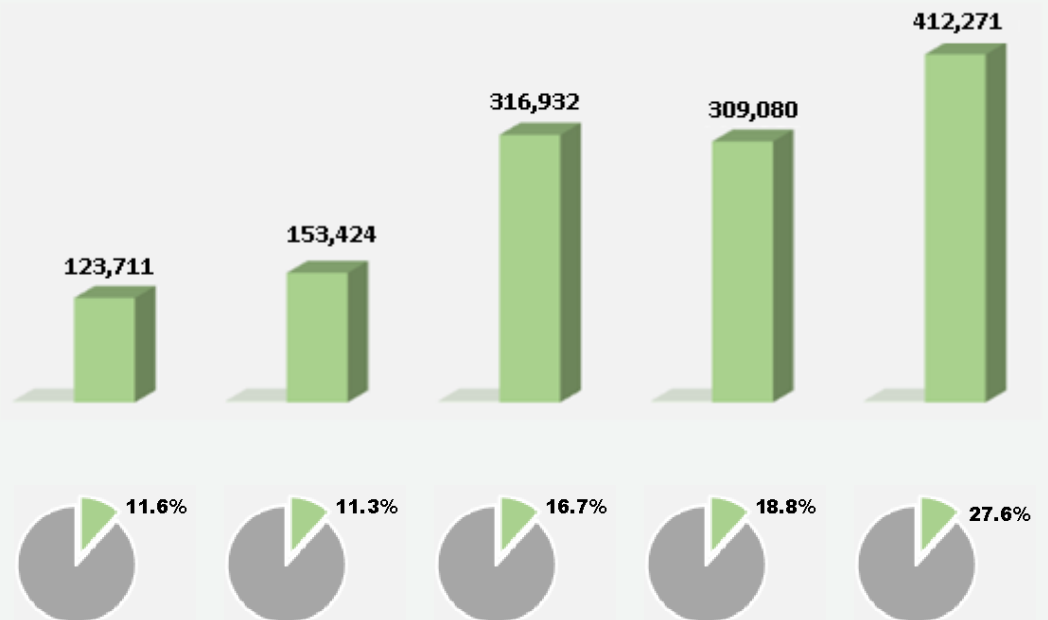
According to the balance totals, the representation of the sectors with the highest allocation of financial resources is displayed below.



Summary of the period from 2013 to 2017

The credit volumes of the participating banks for the year of the survey and their respective representation in the total corporate portfolio of the sample banks are presented below.

R\$ million



Share in the corporate credit portfolio of the sample ¹

(R\$ Billion)	1,062	1,358	1,893	1,645	1,495
Year	2013	2014	2015	2016	2017

Source: ¹ Selected Data of Financial Institutions (IF.data) supervised by the Brazilian Central Bank

Note: The corporate portfolio of the sample accounts for the banks participating in the year of the survey.

Bank financing by economic sectors with a potential socio-environmental impact

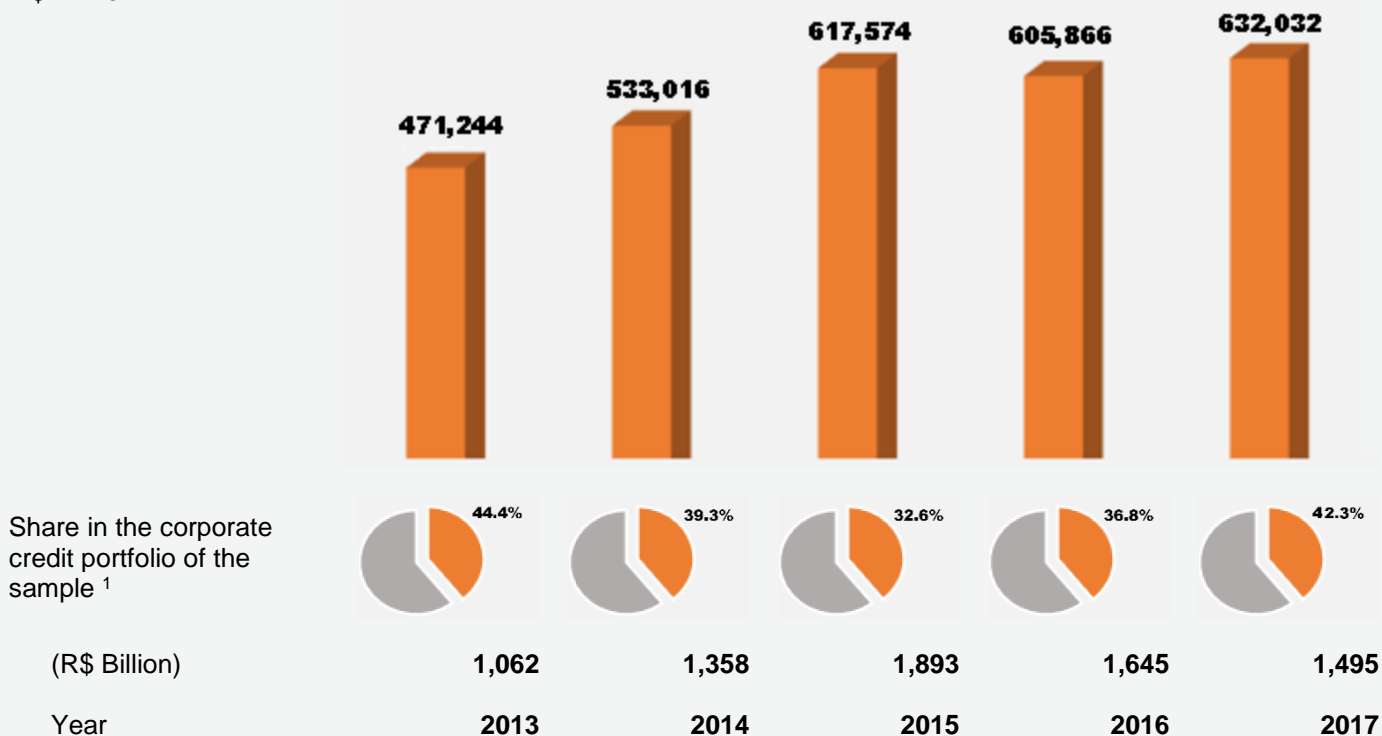
Portfolio balances related to activities in these sectors totalled R\$ 632,032 million as of December 31st, 2017, representing 42.3% of the R\$ 1,495 billion total corporate portfolios of the sample banks. The table below illustrates the division of these funds by sectors.

SECTORS	Balance in R\$ THOUSAND
ELECTRICITY, GAS AND OTHER UTILITIES	103,011
FOOD PRODUCTS	60,289
AGRICULTURE, LIVESTOCK AND RELATED SERVICES	57,265
MANUFACTURE OF COKE, PETROLEUM PRODUCTS AND BIOFUELS	41,712
TRANSPORTATION VIA WATERWAYS	37,683
MANUFACTURING OF MOTOR VEHICLES, TRUCKS AND BUSES	29,390
METALLURGY	24,868
WAREHOUSING AND RELATED TRANSPORT ACTIVITIES	24,863
INFRASTRUCTURE PROJECTS	22,436
LAND TRANSPORTATION	20,601
EXTRACTION OF METALLIC MINERALS	18,196
CHEMICAL PRODUCTS	17,313
MANUFACTURING OF MACHINERY AND EQUIPMENT	17,045
WHOLESALE TRADE(EXCEPT MOTOR VEHICLES AND MOTORCYCLES)	17,034
PULP, PAPER AND PAPER PRODUCTS	16,089
MANUFACTURE OF NON-METALLIC MINERAL PRODUCTS	11,563
RETAIL TRADE	10,471
BUILDING CONSTRUCTION	10,164
METAL PRODUCTS, EXCEPT MACHINERY AND EQUIPMENT	8,442
RUBBER AND PLASTIC PRODUCTS	8,281
TEXTILES	8,075
CLOTHES AND ACCESSORIES	7,526
ELECTRICAL MACHINERY, DEVICES AND EQUIPMENT	6,977
OTHER TRANSPORT EQUIPMENT, EXCEPT MOTOR VEHICLES	6,612
COLLECTION, PURIFICATION AND DISTRIBUTION OF WATER	5,233
LEATHER MANUFACTURING, TRAVEL GOODS AND FOOTWEAR	4,523
ACCOMMODATION	4,249
BEVERAGES	4,171
OTHERS	27,950
TOTAL	632,032

Summary of the period from 2013 to 2017

The credit volumes of participating banks for the year of the survey and their respective representation in the total corporate portfolio of the sample banks are presented below.

R\$ million



Source: ¹ Selected Data of Financial Institutions (IF.data) supervised by the Brazilian Central Bank
 Note: The corporate portfolio of the sample accounts for the banks participating in the survey year.



CAPITAL MARKETS

With the participation of the Brazilian Financial and Capital Markets Association (ANBIMA) since 2017, the issuance of securities that are eligible for the methodology were measured both in the sectors of the Green Economy as well as in activities with potential socio-environmental impact, classified according to each CNAE of the issuer. Stocks, debentures, bonds and green bonds were included in the study according to their specifications:

❖ **Stocks**

Only primary stock offers in which the proceeds go to the issuing company.

❖ **Stocks and debentures**

Were excluded from the sample the resources destined entirely for the redemption of an earlier issue, as informed in the deed or a material fact disclosed by the issuer.

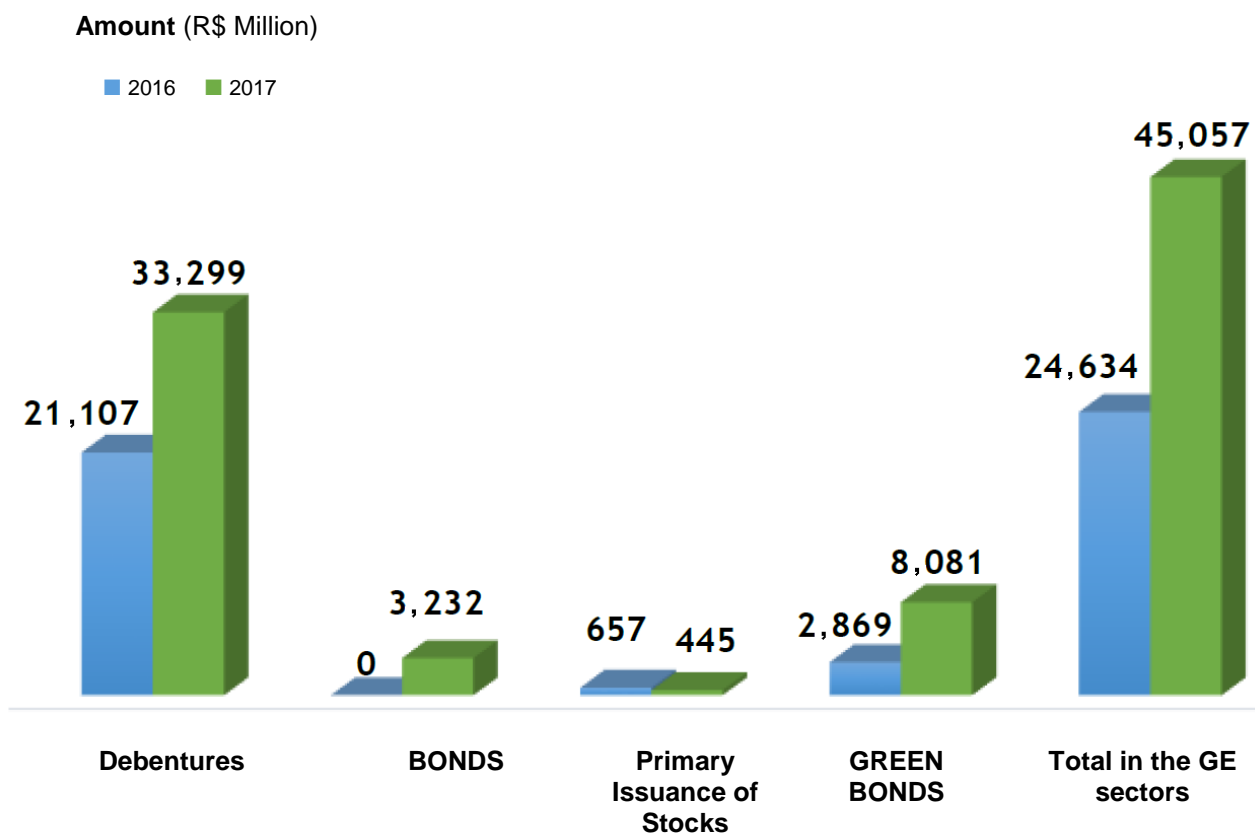
❖ **Bonds**

The amounts raised were converted with the rate (BACEN) on the date of the settlement of the offer and presented in Brazilian *reais* (BRL). The offers of National Treasury Bonds were not considered.

❖ **Green Bonds**

Considered regardless of the stated destination in the offer documents and of the CNAE.

Bond issues for the Green Economy sectors amounted to **R\$ 45,057 million in 2017 and represented 24.3%** of the R\$ 185 billion total volume of securities issued in the capital market accounted for in the methodology.

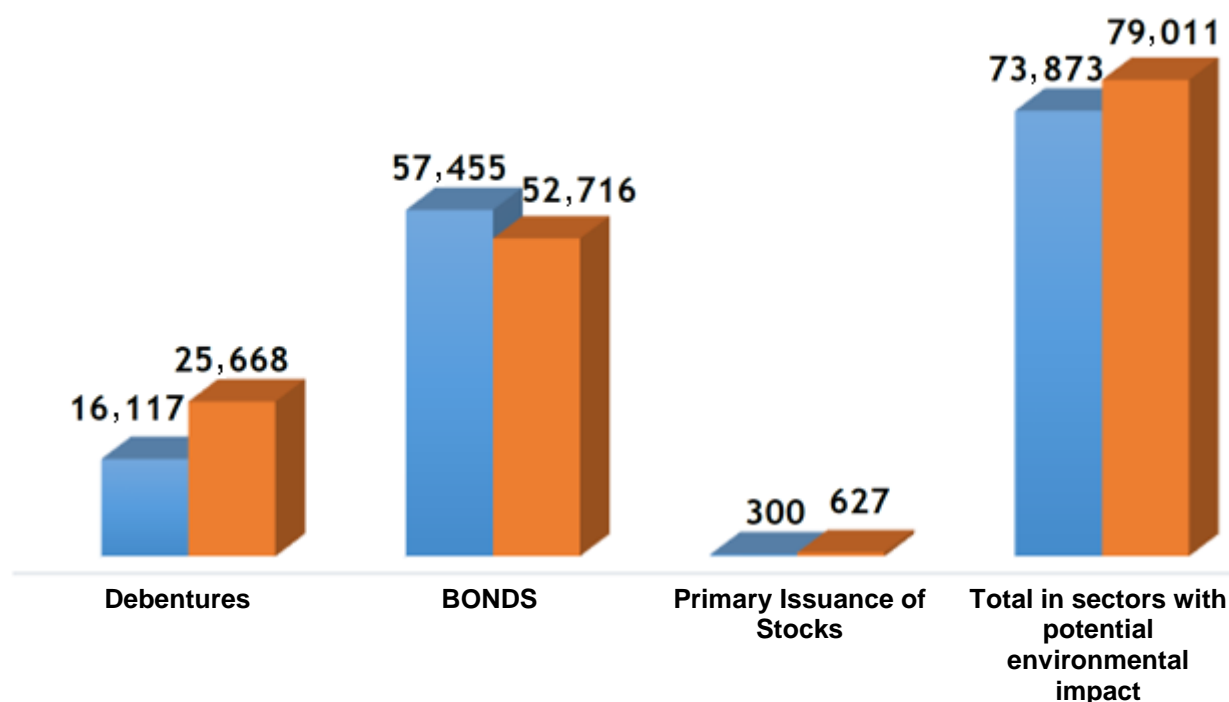


CAPITAL MARKETS

Bond issues for sectors with potential socio-environmental impact totalled R\$ 79,011 million in 2017, representing 42.6% of the R\$ 185 billion total volume of securities.

Amount (R\$ Million)

■ 2016 ■ 2017



WRITTEN BY

FEBRABAN – Brazilian Federation of Banks
 Institutional Relations Directorate

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 BNDES (BANCO NACIONAL DE
 DESENVOLVIMENTO ECONÔMICO E SOCIAL)
 BNB (BANCO DO NORDESTE)
 BRADESCO

BTG PACTUAL
 CAIXA ECONÔMICA FEDERAL
 DAYCOVAL
 ITAÚ UNIBANCO
 RABOBANK
 SANTANDER
 SICREDI
 TRIÂNGULO

COLLABORATION

ANBIMA – Associação Brasileira das Entidades dos Mercados Financeiro e de Capitais (Brazilian Association of Financial and Capital Market Entities)

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