



MINISTÉRIO DA ECONOMIA

# Newsletter Debentures

And other financial instruments under the terms of Law # 12,431 dated June 24, 2011  
Real Estate Receivables Certificates - CRI's and Investment Funds

March 2020

76 th Edition

SECRETARIA DE  
POLÍTICA ECONÔMICA

SECRETARIA ESPECIAL DE  
FAZENDA

MINISTÉRIO DA  
ECONOMIA



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Objective: Law 12,431/11

Present the number of projects authorized to raise funds in the capital markets, as well as the number and volume of debentures issued (Investment Projects and Infrastructure Investment Projects of Law 12,431 of 2011).  
 In particular, the market for incentive debentures for infrastructure is analyzed, in accordance with current legislation.

**Brazilian  
 Infrastructure Bonds  
 (main features)**

- ▶ Minimum duration of 4 years at issuance (6 years in the case of FIDC);
- ▶ Fixed rate or inflation-linked;
- ▶ There should be no repurchase by issuer during the first 2 years after the issuance date.
- ▶ No resale commitment undertaken by the buyer.
- ▶ Periodic interest payments (if applicable) of no less than 180 days.
- ▶ The instrument must be registered in a regulated securities market authorized by the Central Bank of Brazil or the Brazilian Securities Commission.
- ▶ Simplified procedure showing issuer's commitment to allocate raised funds in future payments or reimbursements of expenses, costs or liabilities related to investment projects;
- ▶ Dollar-denominated instruments are not eligible for the tax breaks.
- ▶ Public Issuance (Securities Commission Instruction 400) or Public Issuance with Restricted Efforts (Securities Commission Instruction 476).
- ▶ CMN Resolution 4,751 of September 30, 2019, authorizes the possibility of early settlement of debentures may occur, at the sole discretion of the issuer, provided that the following requirements are cumulatively met:
  - ▶ After at least four years from the debentures issuance date; and
  - ▶ If there is an express provision in the debentures indenture;
  - ▶ Prepayment rate less than or equal to the sum of the federal government bond rate matched by the same debenture index with the duration closest to the debenture duration at the early settlement date, with the spread over the federal government bond matched by the same index as the debenture with the duration closest to the duration of the security on the issue date;
  - ▶ Provision in the Deed of Issue instrument of possible early settlement dates at intervals of not less than six months between them and the calculation formula that will be used at the time of settlement;
  - ▶ The requirements in the last two items above may be disregarded provided that debenture holders representing at least seventy-five percent (75%) of the outstanding debentures approve the settlement, by deliberation at the debenture holders' meeting or adhering to the offer. purchase made by the issuing company, in compliance with the rules issued by the Securities Commission;
  - ▶ This resolution applies only to debentures issued from the 30th of september, 2019.
- ▶ CVM Rulling 400 - Public Offer. CVM Ruling 476 - limited public offering in which up to 50 professional investors can participate.
- ▶ CAPEX Bonds (also referred to as Law # 12,431/2011 article 1 debenture) - Local currency IOF and tax-exempt bond for non-residents. The funds raised will be used for investments.
- ▶ Infrastructure Bond (also referred to as Law # 12,431 article 2 debenture) - tax-exempt bond for resident natural persons. A ten-percentage point Ten percentage-point reduction for local companies. Funds raised must be used in infrastructure investments or in research, development and innovation-intensive economic production.
- ▶ Decree 8.874 / 2016, which regulates the tax benefit of DI's, currently covers seven sectors: (i) logistics and Transpor; (ii) Urban Mobility; (iii) Energy; (iv) Telecoms; (v) Radiofusion; (vi) Water and Sewerage (vii) Irrigation (Article 2).

The incentivized debentures instituted by Law 12,431 / 2011, related to investment projects in general and specifically to investment projects in the area of infrastructure defined as priority and regulated by Decree No. 8.874 / 2016, enjoy tax benefits and constitute a funding mechanism long-term via the capital market, as an alternative to traditional sources of financing.

In march 2020, it was offered in the market with restricted distribution efforts 4 (four) debenture of infrastructure, linked to the energy sector (transmission, biofuel) and Water and Sewerage sector. The total volume of the supply distributed in the period was R\$ 1.1 billion. Between 2012 and march 2020, the total volume disbursed in infrastructure debentures, with ample and restrictive efforts was R\$ 87 billion.

Regarding total Issuances distributed Through Public Offers (Brazilian Securities and Exchange Commission - CVM No. 400/2003) and Restricted Offers (Brazilian Securities and Exchange Commission - CVM No. 476/2009), the individual investors participation accounted for R\$ 27.2 billion of the total amount until march 2020, corresponding to 31% of all incentive debentures distributed since 2012.

The volume of tax-benefited debentures traded in the secondary markets exceeded the volume of non-tax benefited debentures. In march, the traded volume for tax-benefited debentures was 6.9% against 5.6% for non-tax benefited debentures.

Regarding Anbima Debentures Index (Índice de Debentures Anbima - IDA), In the last 12 months, the value of IDA-DI decreased by -0.50%, against an increase of 3.5% in the IDA-IPCA (National Consumer Price Index (IPCA)-CPI) Infrastructure and 9.1% in the IDA-IPCA Exclusive Infrastructure. Regarding risk, in the last 12 months, IDA-IPCA Infrastructure reached a risk rate of around 7.4%, while IDA-DI and IDA-IPCA ex-infrastructure respectively reached 1.7% and 4.4%.

Regarding Infrastructure Funds, the percentage investment in Debentures through march 2020 in Fixed Income Funds (Fundos de Renda Fixa - FIRF), was 81%, while investments in Direct Credit Funds reached 96%, of Net Equity (NE).

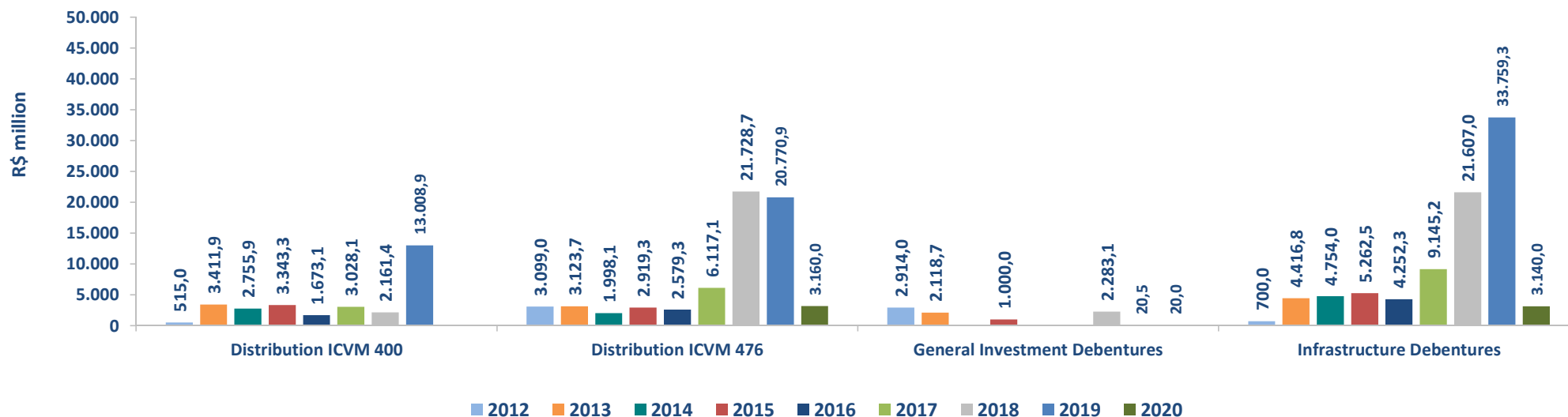
Law No. 12,431/11 prescribes a minimum investment of 85% of Net Equity in infrastructure projects (debentures, quota funds, and direct credits), although in the first two years from the first pay-in, the minimum permitted percentage of infrastructure assets relative to Net Equity is 67%.

The National Civil Aviation Agency (ANAC) made available on its website - ([www.anac.gov.br/assuntos/paginas-tematicas/concessoes](http://www.anac.gov.br/assuntos/paginas-tematicas/concessoes)) - the financial demonstrations of the airports granted. Such an initiative may contribute to the development of the secondary market for debentures in the sector.

Capex and Infrastructure Bonds: 2012 to 2020<sup>1</sup>

INFRASTRUCTURE DEBENTURE	Value (R\$ million)									Total Value
	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Distribution ICVM 400 <sup>2</sup>	515.0	3,411.9	2,755.9	3,343.3	1,673.1	3,028.1	2,161.4	13,008.9	0.0	29,897.5
Distribution ICVM 476 <sup>3</sup>	3,099.0	3,123.7	1,998.1	2,919.3	2,579.3	6,117.1	21,728.7	20,770.9	3,160.0	65,496.0
<b>Total.....</b>	<b>3,614.0</b>	<b>6,535.6</b>	<b>4,754.0</b>	<b>6,262.5</b>	<b>4,252.3</b>	<b>9,145.2</b>	<b>23,890.1</b>	<b>33,779.8</b>	<b>3,160.0</b>	<b>95,393.5</b>
General Investment Debentures	2,914.0	2,118.7	0.0	1,000.0	0.0	0.0	2,283.1	20.5	20.0	8,356.3
Infrastructure Debentures	700.0	4,416.8	4,754.0	5,262.5	4,252.3	9,145.2	21,607.0	33,759.3	3,140.0	87,037.1
<b>Total.....</b>	<b>3,614.0</b>	<b>6,535.6</b>	<b>4,754.0</b>	<b>6,262.5</b>	<b>4,252.3</b>	<b>9,145.2</b>	<b>23,890.1</b>	<b>33,779.8</b>	<b>3,160.0</b>	<b>95,393.5</b>

Capex and Infrastructure Bonds: 2012 to 2020



Source: Anbima - Brazilian Financial and Capital Markets Association and Ministerial Orders  
Elaborated by SPE/ME

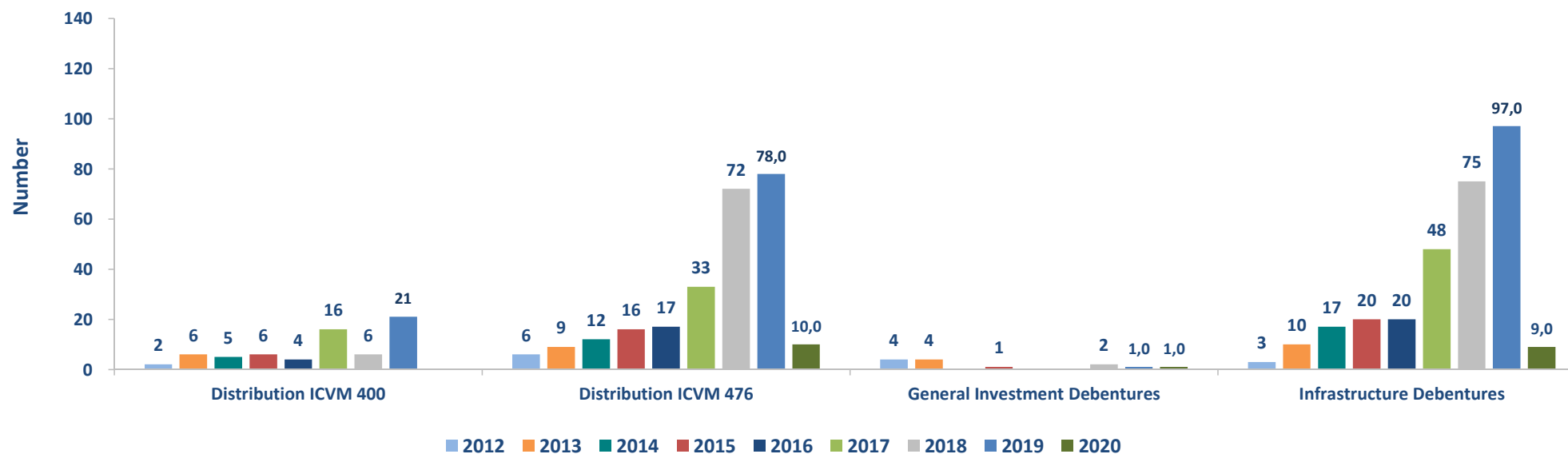
Note:

- (1) Volume by year of distribution
- (2) CVM Ruling 400 - Public Offer
- (3) CVM Ruling 476 - limited public offering in which up to 50 professional investors can participate.

Number of Infrastructure Bonds: 2012 to 2020<sup>1</sup>

INFRASTRUCTURE DEBENTURE	Number									Total Number
	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Distribution ICVM 400 <sup>2</sup>	2	6	5	6	4	16	6	21	0	66
Distribution ICVM 476 <sup>3</sup>	6	9	12	16	17	33	72	78	10	253
<b>Total.....</b>	<b>8</b>	<b>15</b>	<b>17</b>	<b>22</b>	<b>21</b>	<b>49</b>	<b>78</b>	<b>99</b>	<b>10</b>	<b>319</b>
General Investment Debentures	4	4	0	1	0	0	2	1	1	13
Infrastructure Debentures	3	10	17	20	20	48	75	97	9	299
<b>Total.....</b>	<b>7</b>	<b>14</b>	<b>17</b>	<b>21</b>	<b>20</b>	<b>48</b>	<b>77</b>	<b>98</b>	<b>10</b>	<b>312</b>

Number of Infrastructure Bonds: 2012 to 2020



Source: Anbima - Brazilian Financial and Capital Markets Association and Ministerial Orders  
 Elaborated by SPE/ME

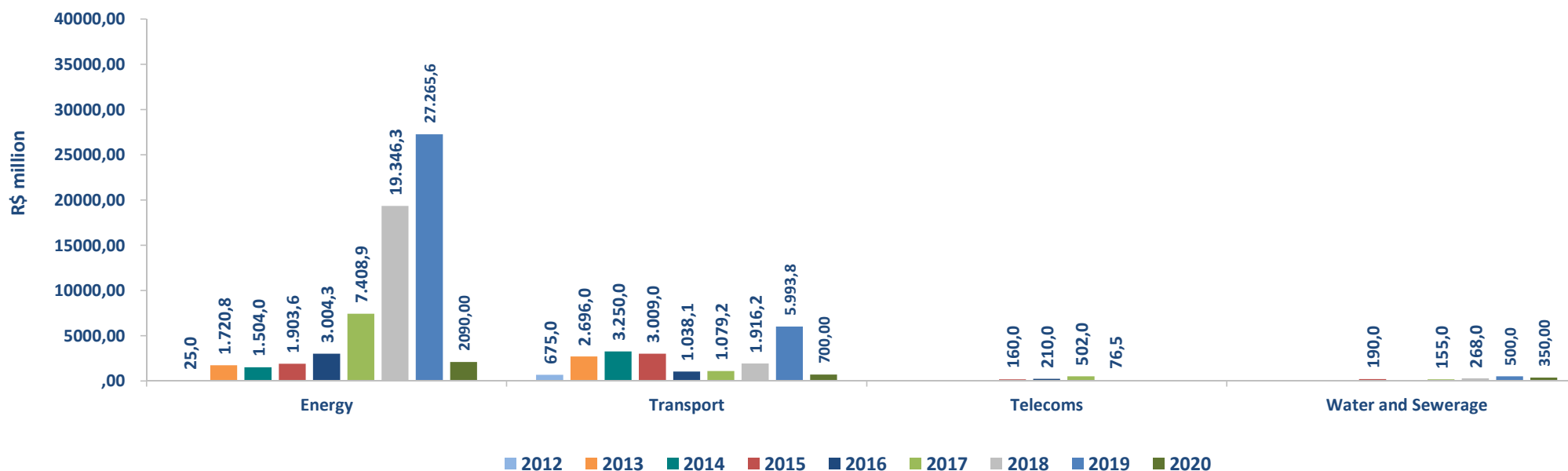
Note:

- (1) Quantity by year of distribution
- (2) CVM Ruling 400 - Public Offer
- (3) CVM Ruling 476 - limited public offering in which up to 50 professional investors can participate.

Infrastructure Bonds: 2012 to 2020<sup>1</sup>  
(by sector)

Sector Debenture	Value (R\$ million)									Total Value
	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Energy	25.0	1,720.8	1,504.0	1,903.6	3,004.3	7,408.9	19,346.3	27,265.6	2,090.0	64,268.4
Transport	675.0	2,696.0	3,250.0	3,009.0	1,038.1	1,079.2	1,916.2	5,993.8	700.0	20,357.3
Telecoms	0.0	0.0	0.0	160.0	210.0	502.0	76.5	0.0	0.0	948.5
Water and Sewerage	0.0	0.0	0.0	190.0	0.0	155.0	268.0	500.0	350.0	1,463.0
<b>Total.....</b>	<b>700.0</b>	<b>4,416.8</b>	<b>4,754.0</b>	<b>5,262.5</b>	<b>4,252.3</b>	<b>9,145.2</b>	<b>21,607.0</b>	<b>33,759.3</b>	<b>3,140.0</b>	<b>87,037.1</b>

Infrastructure Bonds - 2012 to 2020



Source: Anbima and Ministerial Ordinances

Elaborated by SPE/ME

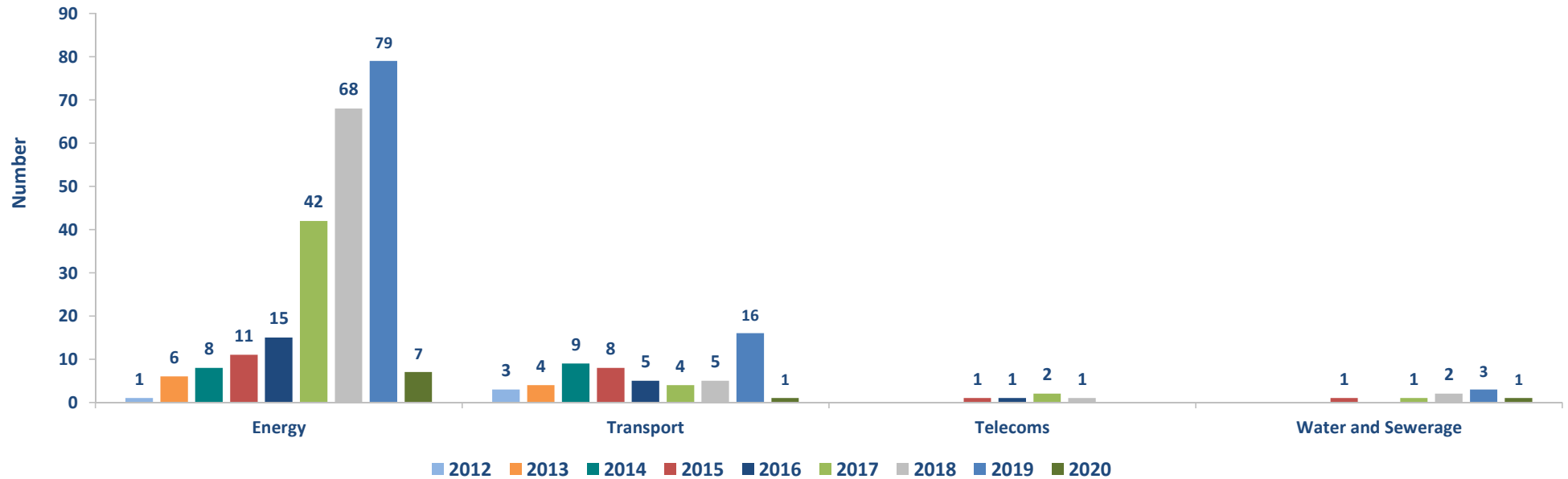
Note:

(1) Volume by year of distribution

Number of infrastructure Bonds: 2012 to 2020<sup>1</sup>  
(by sector)

Sector Debenture	Number									Total Number
	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Energy	1	6	8	11	15	42	68	79	7	237
Transport	3	4	9	8	5	4	5	16	1	55
Telecoms	0	0	0	1	1	2	1	0	0	5
Water and Sewerage	0	0	0	1	0	1	2	3	1	8
<b>Total.....</b>	<b>4</b>	<b>10</b>	<b>17</b>	<b>21</b>	<b>21</b>	<b>49</b>	<b>76</b>	<b>98</b>	<b>9</b>	<b>305</b>

Number of infrastructure Bonds - 2012 to 2020

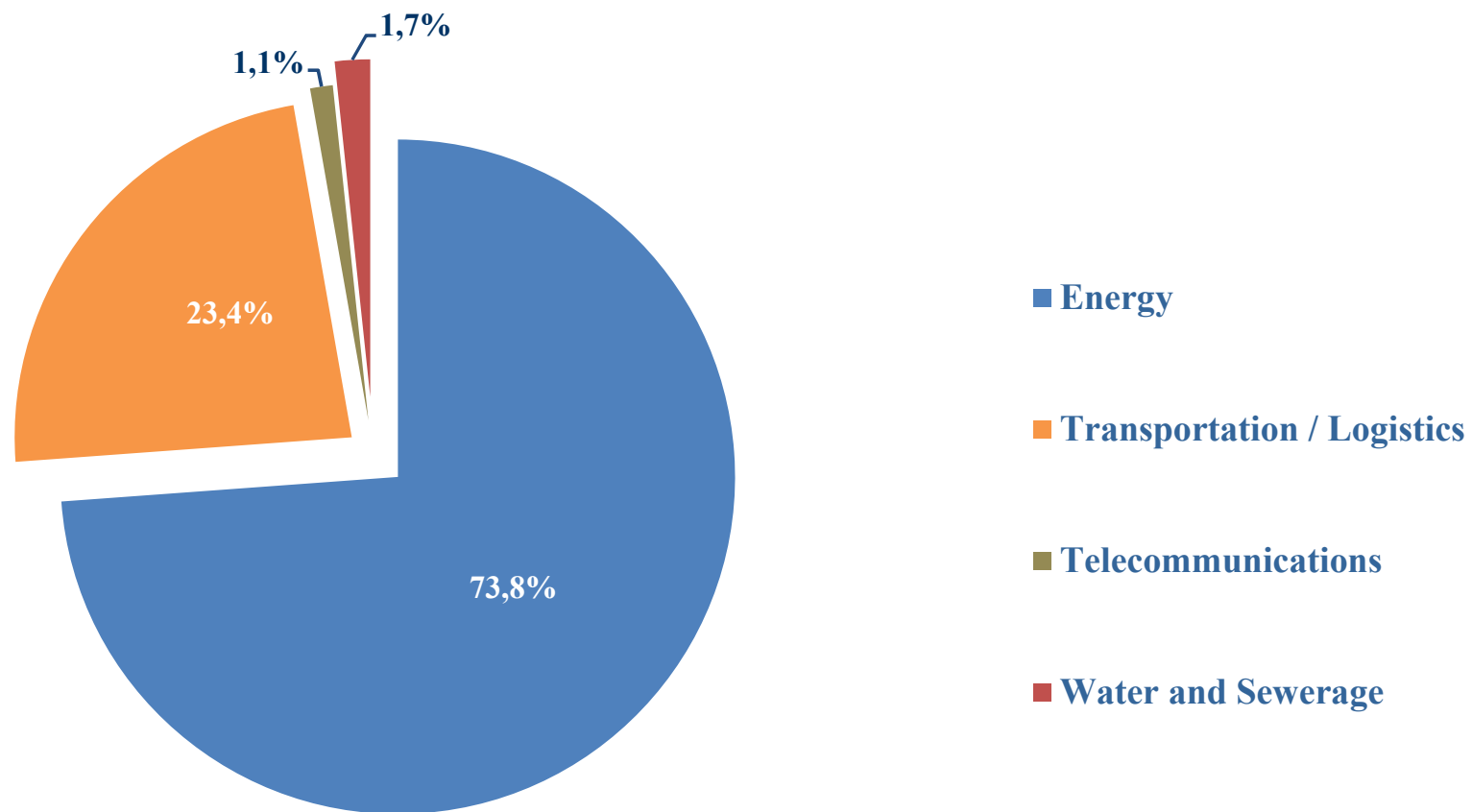


Source: Anbima and Ministerial Ordinances  
Elaborated by SPE/ME

Note:  
(1) Quantity by year of distribution

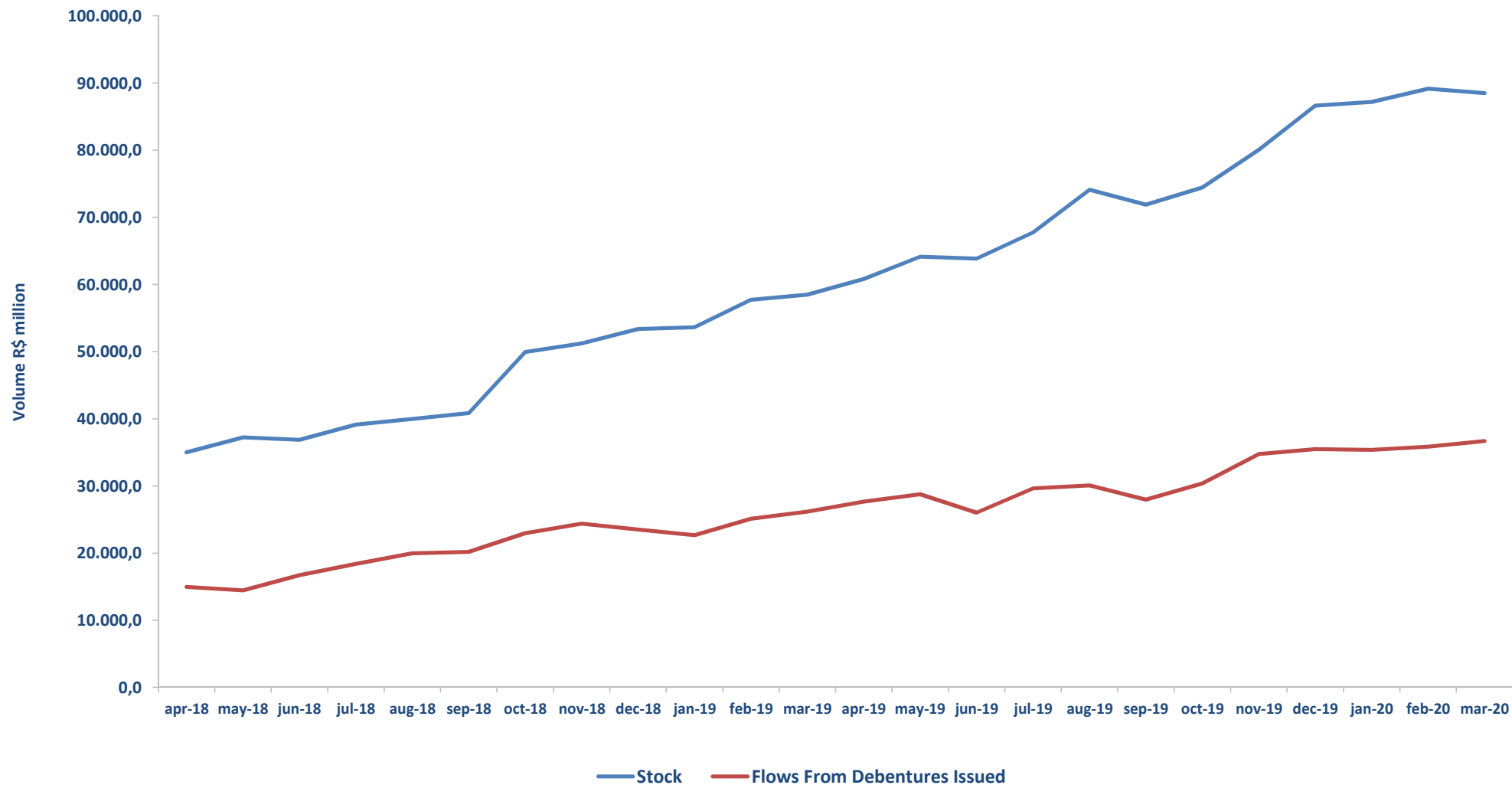


% Debentures Issuance in Infrastructure Projects - 2012 to March 2020



Source: Anbima and Ministerial Ordinances  
Elaborated by SPE/ME

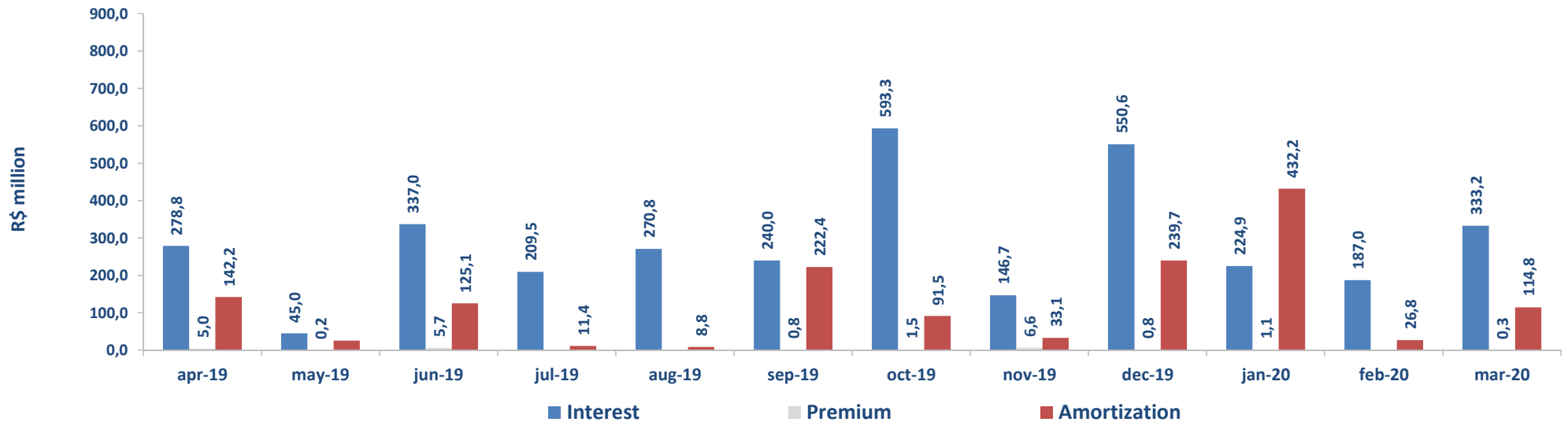
Stock and volume - Infrastructure Debentures (Volume - Rolling Average in the last 12 (twelve) months)



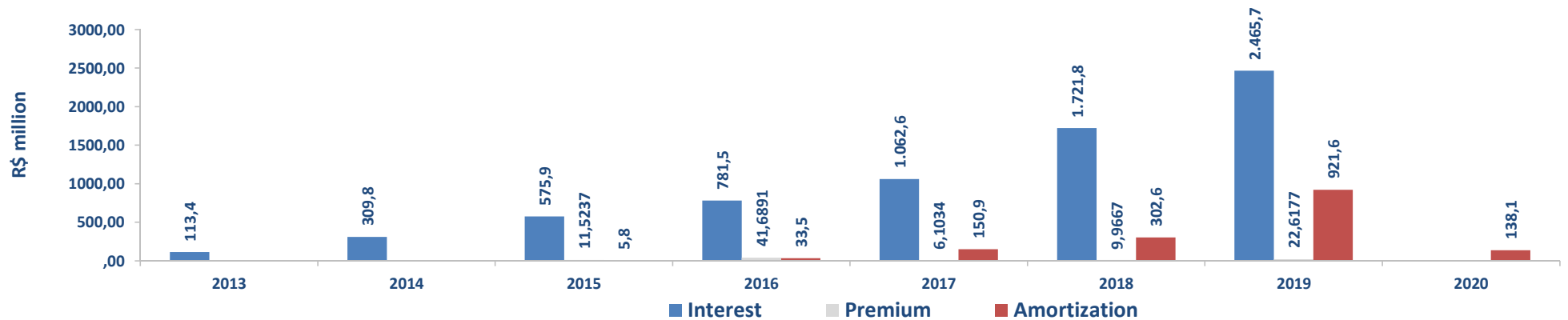
Source: Anbima and Ministerial Ordinances  
Elaborated by SPE/ME

Note: Sum of the emission values of the last 12 months.

Interest, Premium, Amortization Payments - Infrastructure Debentures

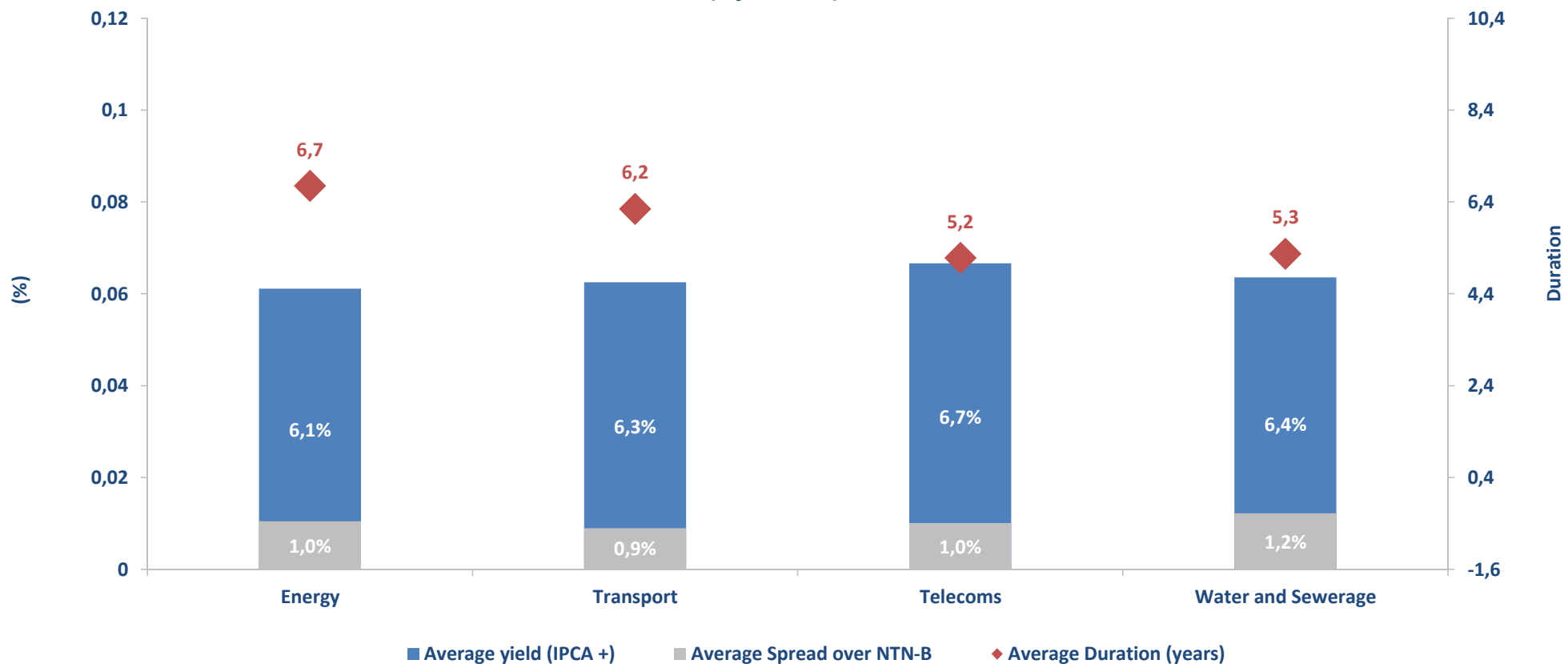


Interest, Premium, Amortization Payments (by year) - Infrastructure Debentures  
2013 and March 2020



Source: Anbima  
Elaborated by SPE/ME

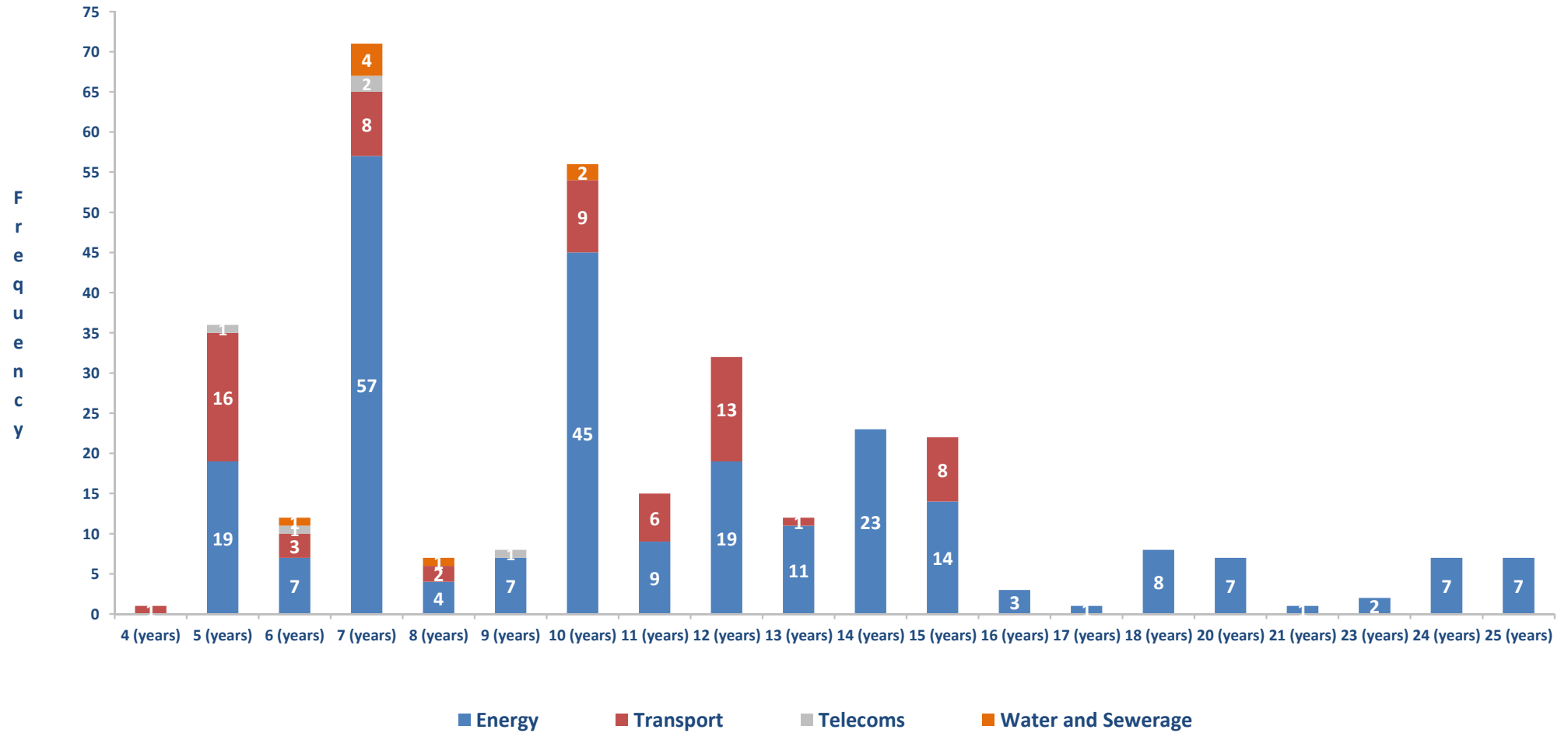
Average - Remuneration, Spread and Duration  
Debentures Infrastructure  
(by sector)



Source: Anbima  
Elaborated by SPE/ME

Note: Duration of macaulay expressed in years (252 d.u.)  
Consumer Price Index - CPI (IPCA)

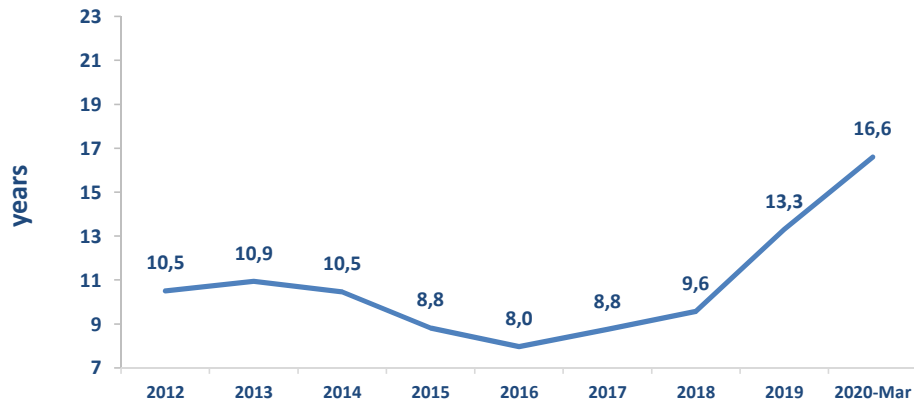
Maturity - Infrastructure Debentures by Issue Series ( in years)  
2012 to March 2020



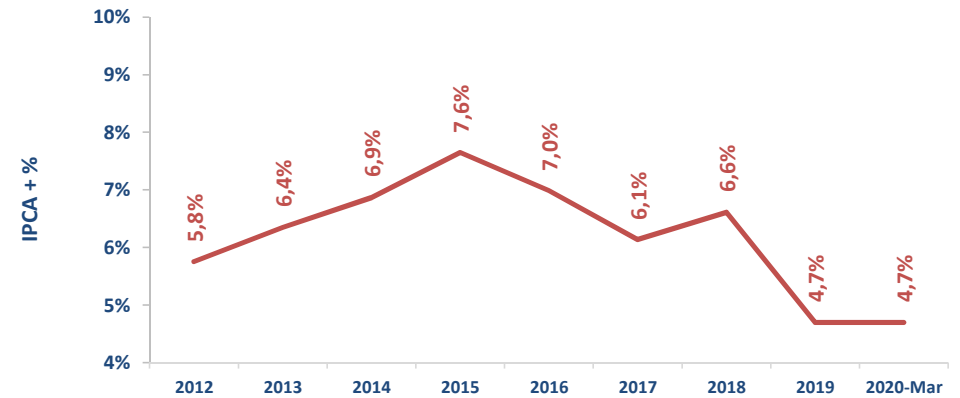
Source: Scripture of the Debentures  
Elaborated by SPE/ME

### Primary Market - Remuneration, Duration and Spread

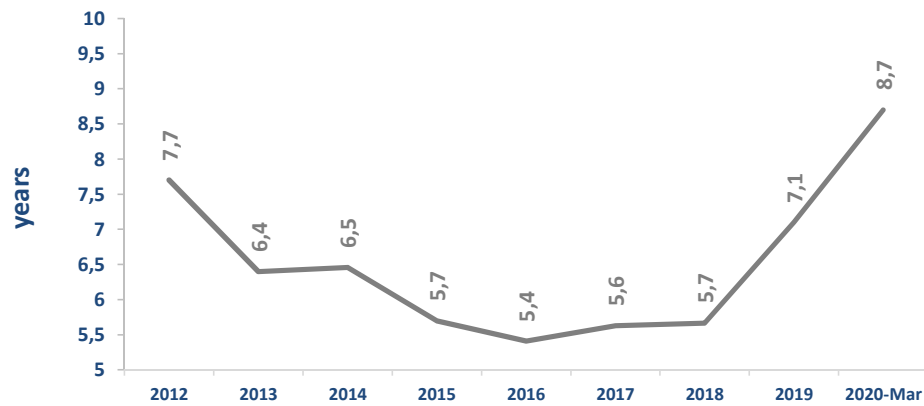
Average term



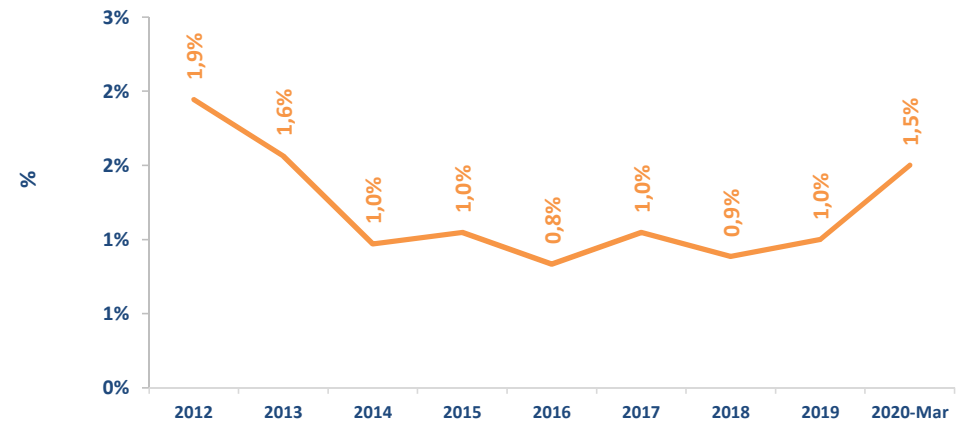
Average yield (IPCA +)



Average Duration



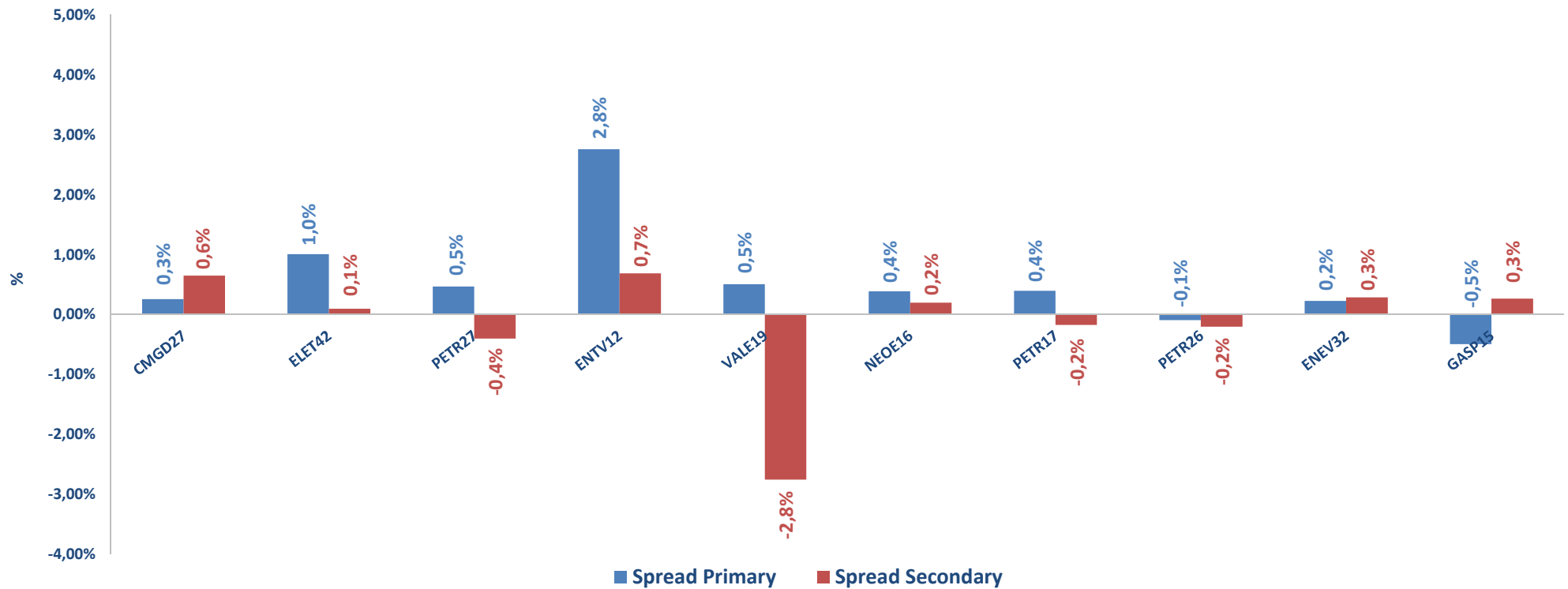
Average Spread (Over NTN)



Source: Anbima and Scripture of the Debentures  
Elaborated by SPE/ME

### Infrastructure Debenture Spread Comparison - Primary<sup>1</sup> Market vs. Secondary<sup>2</sup> Market

(Criterion applied to graph - ten (10) top traded assets per month by volume - Infrastructure Debenture )



Rating: (AAA) ELET42, PETR27, VALE19, PETR17, ENEV32, GASP15 (AA+) NEOE16 (AA) ENTV12, PETR26 (A+) CMGD27

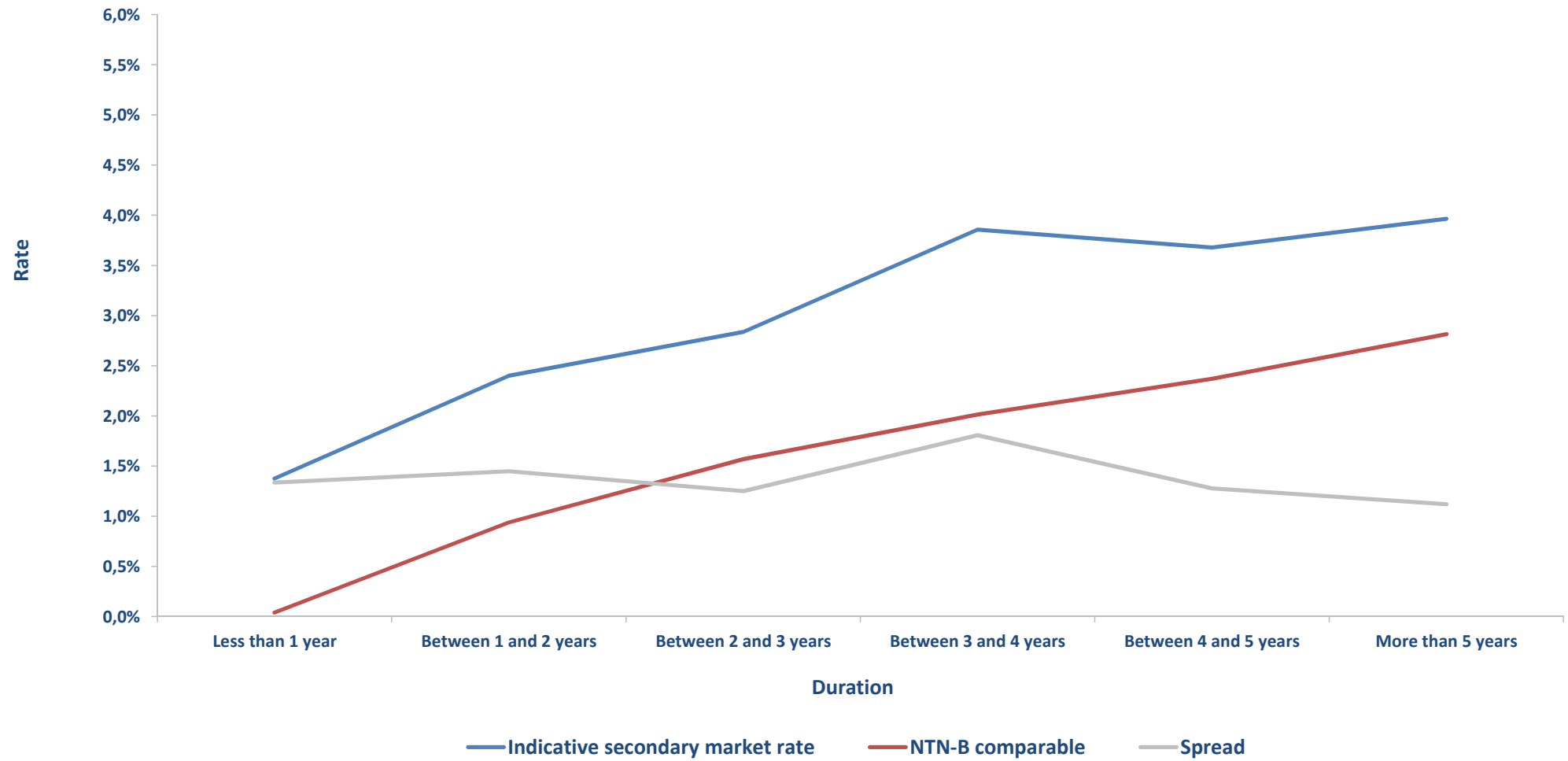
Source: Anbima and Cetip  
Elaborated by SPE/ME

**Note:**

(1) *Bookbuilding* final interest rate defined.

(2) Rate observed in Secondary Market considers average premium over NTN-b duration equivalent of negotiations held March 2 through 31, 2020.

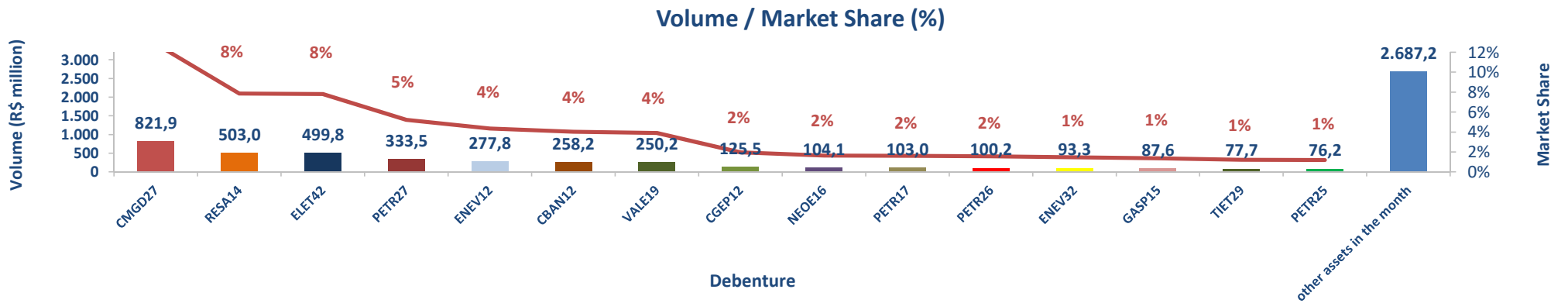
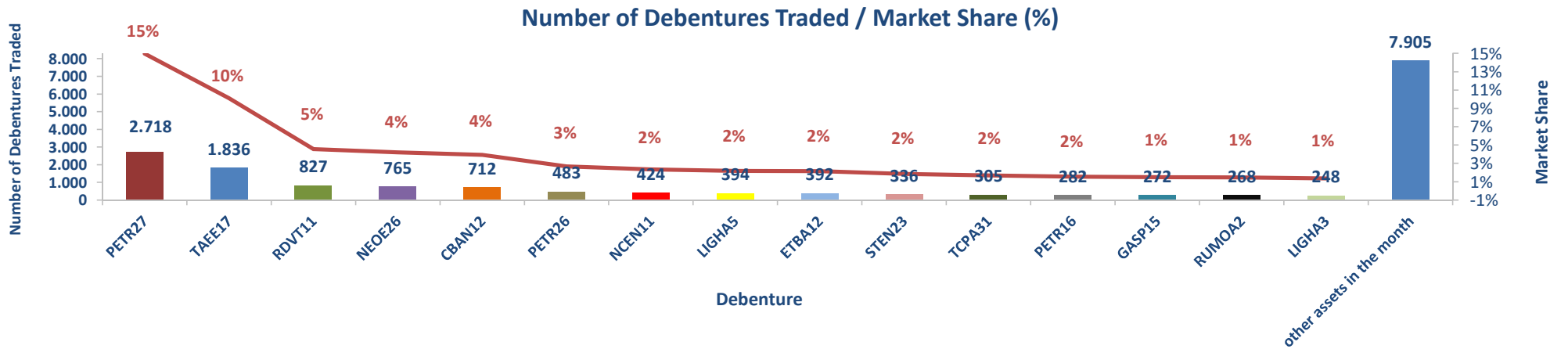
Spread Curve on NTN-B Comparable - (Secondary Market - third four month period of 2019)  
Infrastructure Debentures



Source: Anbima  
Elaborated by SPE/ME



Secondary Market - Quantity and Volume of Debentures Traded - March 2020  
 Infrastructure Debentures - Law # 12,431/2011  
 15 most actively traded



Source : Anbima and Cetip  
 Elaborated by SPE/ME

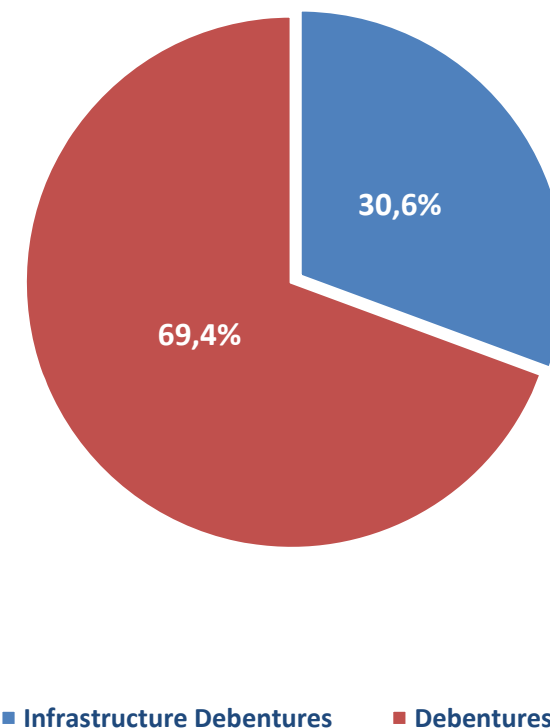
Note: Includes Intra-group and Extra-group transactions (Without Leasing).

Debentures Secondary Market - Trading Volume and Turnover

R\$ million

Period	Trading Volume <sup>1</sup>						Total Trading Volumes
	Debentures			Infrastructure Debentures-Law # 12,431/11 <sup>2</sup>			
	Trading Volume	Market Volume	Turnover	Trading Volume	Market Volume <sup>3</sup>	Turnover	
2018/04	3,523.8	251,455.2	1.4%	1,707.3	35,017.6	4.9%	5,231.1
2018/05	3,592.3	254,144.9	1.4%	1,530.9	37,224.2	4.1%	5,123.2
2018/06	4,468.7	257,571.5	1.7%	1,618.8	36,865.7	4.4%	6,087.5
2018/07	2,492.4	258,354.8	1.0%	1,596.6	39,137.7	4.1%	4,089.0
2018/08	3,842.5	262,431.0	1.5%	1,460.0	39,964.9	3.7%	5,302.5
2018/09	3,146.7	268,416.5	1.2%	1,693.6	40,847.4	4.1%	4,840.4
2018/10	5,256.8	287,855.3	1.8%	2,272.4	49,954.4	4.5%	7,529.2
2018/11	6,901.0	288,664.8	2.4%	1,846.3	51,210.3	3.6%	8,747.3
2018/12	4,143.5	499,475.2	0.8%	3,350.8	53,352.5	6.3%	7,494.3
2019/01	4,319.1	509,625.3	0.8%	2,349.8	53,630.2	4.4%	6,668.9
2019/02	4,807.2	298,881.4	1.6%	2,121.7	57,718.4	3.7%	6,928.9
2019/03	7,877.6	300,362.2	2.6%	2,602.7	58,461.7	4.5%	10,480.3
2019/04	2,993.2	308,697.3	1.0%	3,091.2	60,812.2	5.1%	6,084.4
2019/05	6,179.1	317,995.2	1.9%	4,334.6	64,149.7	6.8%	10,513.7
2019/06	5,078.3	344,750.0	1.5%	3,007.8	60,271.1	5.0%	8,086.1
2019/07	6,363.8	345,152.8	1.8%	3,467.3	67,740.2	5.1%	9,831.2
2019/08	10,463.0	344,721.3	3.0%	4,724.5	74,098.5	6.4%	15,187.5
2019/09	12,702.2	353,026.5	3.6%	3,803.0	71,895.0	5.3%	16,505.2
2019/10	8,951.3	361,337.1	2.5%	4,461.4	74,435.3	6.0%	13,412.7
2019/11	9,912.0	363,796.1	2.7%	4,267.1	80,072.6	5.3%	14,179.1
2019/12	15,064.5	368,003.0	4.1%	5,449.0	86,615.8	6.3%	20,513.5
2020/01	11,148.5	369,446.7	3.0%	5,018.7	87,169.4	5.8%	16,167.2
2020/02	8,410.8	366,638.8	2.3%	4,234.8	89,160.1	4.7%	12,645.6
2020/03	20,910.0	371,044.9	5.6%	6,144.2	88,480.0	6.9%	27,054.2

Trading Volume  
April/2018 to March/2020



Source: Anbima

Elaborated by SPE/ME

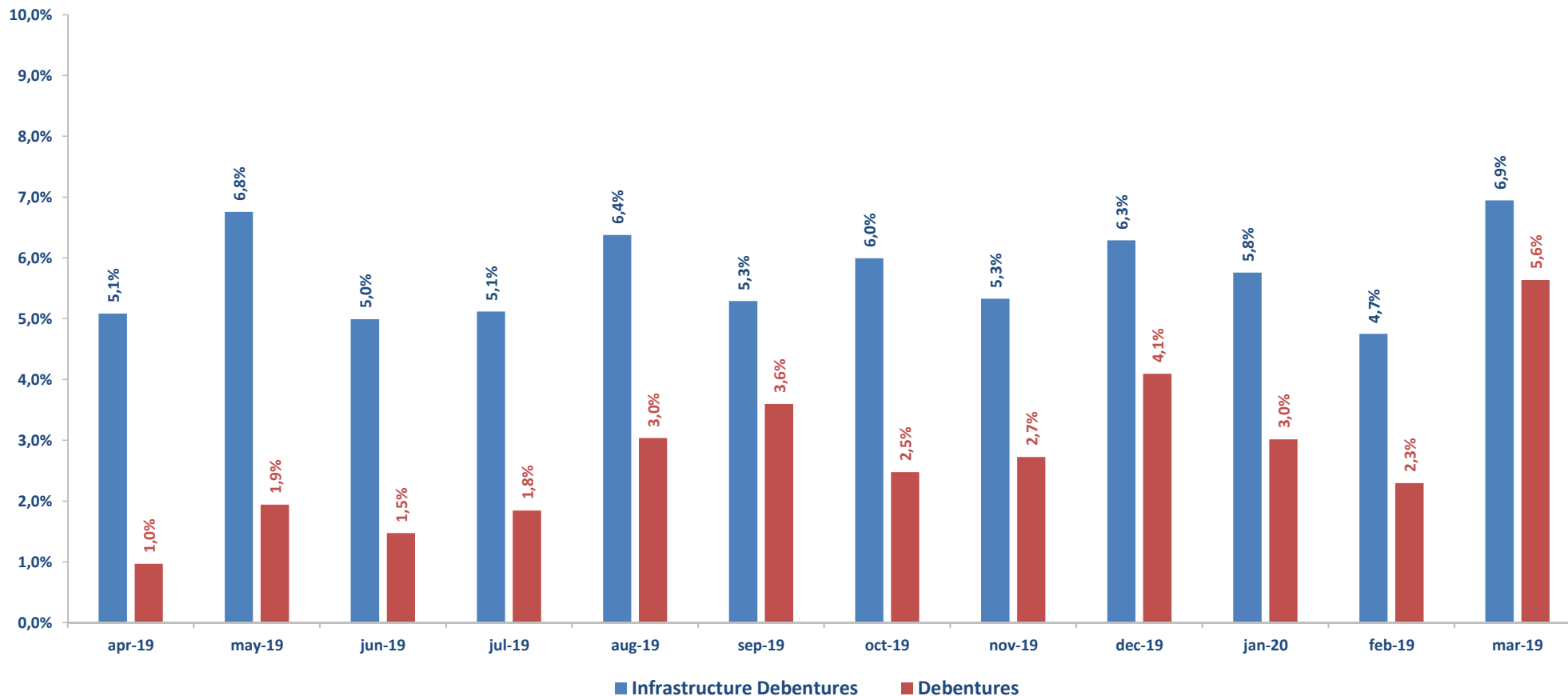
Note :

(1) Type of transaction (Intra-group and Extra-group): The intra-group transactions are negotiated between institutions belonging to the same financial conglomerate and extra-group transactions are negotiated between participants of different conglomerates and among participants with clients who are not part of the ANBIMA REUNE system. Leasing debentures are not considered.

(2) Financial trading Volume of infrastructure debentures.

(3) Financial stock of infrastructure debentures.

**Secondary Market - Trading Volume<sup>1</sup>  
Infrastructure Debentures Vs. Debentures  
Comparative Turnover (Trading Volume<sup>2</sup>/Market Volume<sup>3</sup>)**



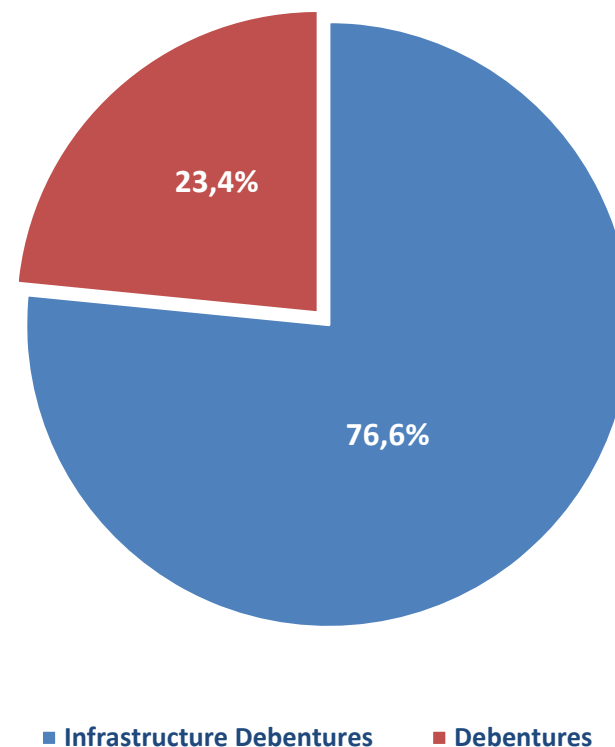
Source: Anbima  
Elaborated by SPE/ME

**Note :**  
(1) Type of transaction (Intra-group and Extra-group): The intra-group transactions are negotiated between institutions belonging to the same financial conglomerate and extra-group transactions are negotiated between participants of different conglomerates and among participants with clients who are not part of the ANBIMA REUNE system. Leasing debentures are not considered. (2) Financial trading Volume of infrastructure debentures. (3) Financial stock of infrastructure debentures.

Infrastructure Debentures Secondary Market - Share of Trades

Share of Trades <sup>1</sup>			
Period	Debentures	Infrastructure debentures-Law # 12,431/11 <sup>2</sup>	Share Total of Trades
	Share of Trades	Share of Trades	
2018/04	3,164	10,681	13,845
2018/05	3,099	12,377	15,476
2018/06	2,929	11,164	14,093
2018/07	3,081	12,671	15,752
2018/08	4,825	11,986	16,811
2018/09	3,270	8,321	11,591
2018/10	5,553	15,855	21,408
2018/11	4,034	12,019	16,053
2018/12	4,341	12,161	16,502
2019/01	3,394	12,479	15,873
2019/02	4,187	11,919	16,106
2019/03	3,423	11,351	14,774
2019/04	2,836	14,741	17,577
2019/05	5,046	18,501	23,547
2019/06	4,447	15,578	20,025
2019/07	5,077	16,260	21,337
2019/08	5,929	17,528	23,457
2019/09	5,598	15,518	21,116
2019/10	5,922	19,683	25,605
2019/11	5,376	16,931	22,307
2019/12	6,246	21,580	27,826
2020/01	8,077	23,601	31,678
2020/02	5,627	18,946	24,573
2020/03	6,805	25,118	31,923

Share of Trades  
April/2018 to March/2020



Source: Anbima  
Elaborated by SPE/ME

Note:  
 (1) Type of transaction (Intra-group and Extra-group): The intra-group transactions are negotiated between institutions belonging to the same financial conglomerate and extra-group transactions are negotiated between participants of different conglomerates and among participants with clients who are not part of the ANBIMA REUNE system. Leasing debentures are not considered.  
 (2) Share of trades: infrastructure debentures.

Breakdown by type of Investor - Infrastructure Debentures  
2012 to March 2020

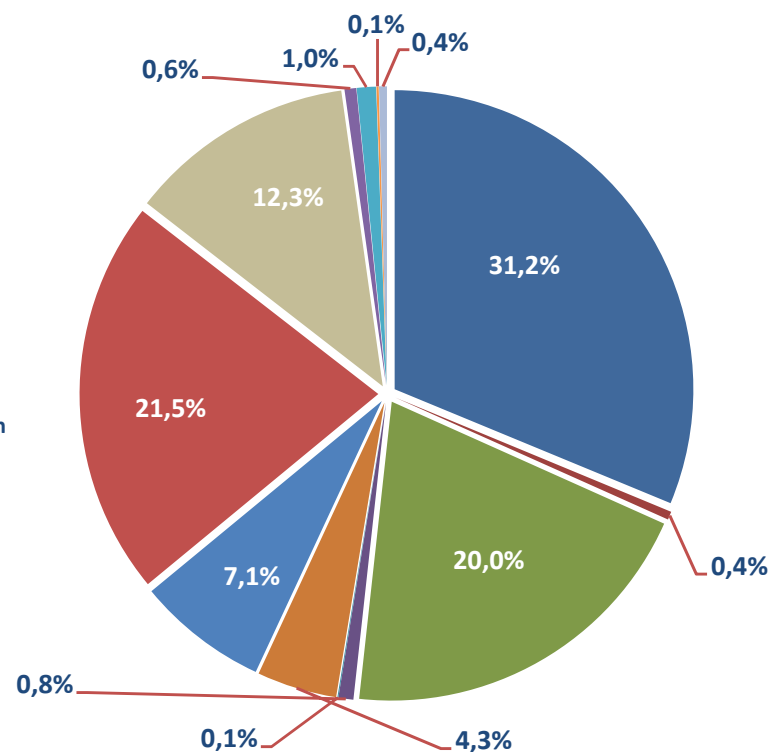
Summary of breakdown - ICVM 400 and ICVM 476

Investor	%	R\$ million
Individuals	31.2%	27,196.3
Investment Clubs	0.4%	385.3
Investment Funds	20.0%	17,449.0
Private Pension Entities	0.8%	703.0
Insurance Companies	0.1%	43.9
Foreign Investors	4.3%	3,771.6
Intermediary Institutions Participating in the Distribution Consortium	7.1%	6,173.2
Financial Institutions Connected to the Issuer and/or Participants of the Distribution Consortium	21.5%	18,702.7
Other Financial Institutions	12.3%	10,674.7
Other Corporation connected to the issuer and/or the Participants of the Distribution Consortium	0.6%	545.2
Other Corporations	1.0%	900.1
Partners, Directors, Employees, Agents and other Persons connected to the issuer and/or the Participants of the Distribution Consortium	0.1%	116.6
Other Buyers	0.4%	375.7
<b>Total.....</b>	<b>100.0%</b>	<b>87,037.1</b>

Source: Anbima. Leading Banks and closing announcement  
Elaborated by SPE/ME

Summary of breakdown - ICVM 400 and ICVM 476

- Individuals
- Investment Clubs
- Investment Funds
- Private Pension Entities
- Insurance Companies
- Foreign Investors
- Intermediary Institutions Participating in the Distribution Consortium
- Financial Institutions Connected to the Issuer and/or Participants of the Distribution Consortium
- Other Financial Institutions
- Other Corporation connected to the issuer and/or the Participants of the Distribution Consortium
- Other Corporations
- Partners, Directors, Employees, Agents and other Persons connected to the issuer and/or the Participants of the Distribution Consortium
- Other Buyers



Breakdown by type of Investor - Infrastructure Debentures  
March 2020

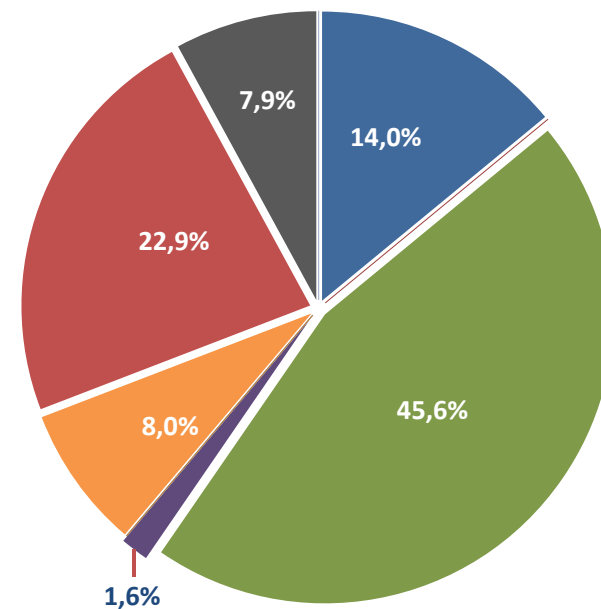
Summary of breakdown - ICVM 400 and ICVM 476

Investor	%	R\$ million
Individuals	14.0%	440.7
Investment Clubs	0.0%	0.0
Investment Funds	45.6%	1,430.4
Private Pension Entities	1.6%	49.4
Insurance Companies	0.0%	0.0
Foreign Investors	0.0%	0.0
Intermediary Institutions Participating in the Distribution Consortium	8.0%	251.3
Financial Institutions Connected to the Issuer and/or Participants of the Distribution Consortium	22.9%	718.8
Other Financial Institutions	7.9%	249.6
Other Corporation connected to the issuer and/or the Participants of the Distribution Consortium	0.0%	0.0
Other Corporations	0.0%	0.0
Partners, Directors, Employees, Agents and other Persons connected to the issuer and/or the Participants of the Distribution Consortium	0.0%	0.0
Other Buyers	0.0%	0.0
<b>Total.....</b>	<b>100.0%</b>	<b>3,140.0</b>

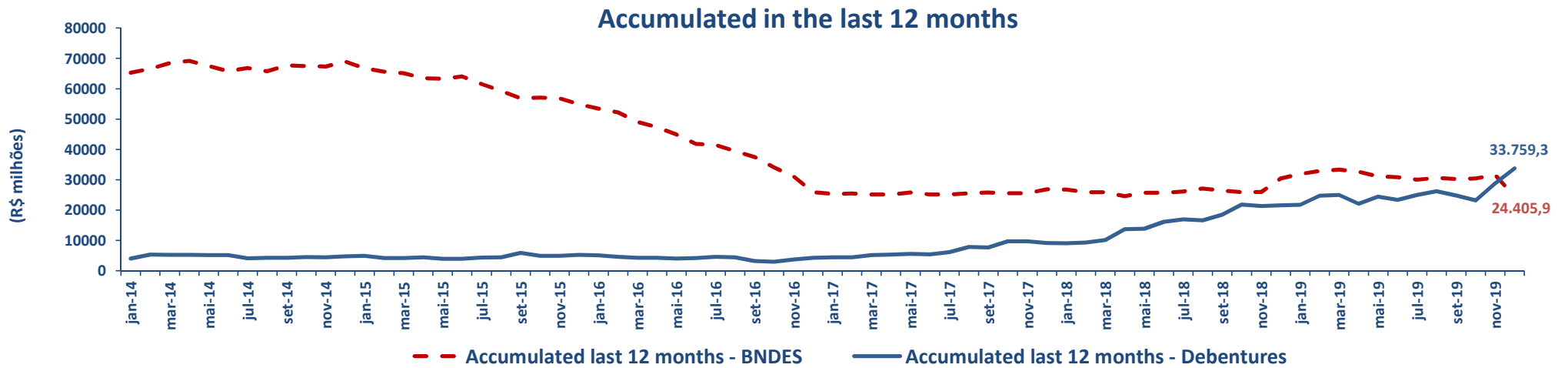
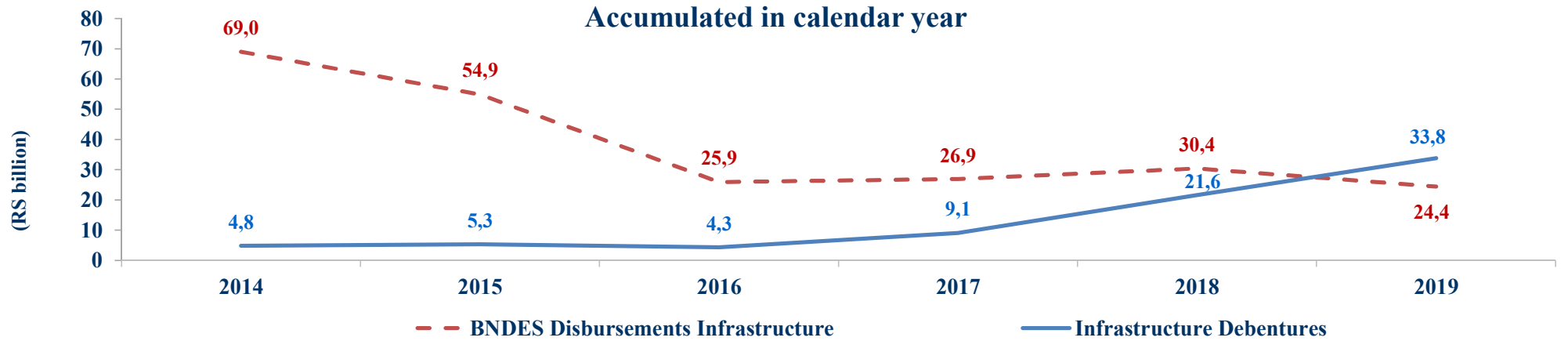
Source: Anbima. Leading Banks and closing announcement  
Elaborated by SPE/ME

Summary of breakdown - ICVM 400 and ICVM 476

- Individuals
- Investment Clubs
- Investment Funds
- Private Pension Entities
- Insurance Companies
- Foreign Investors
- Intermediary Institutions Participating in the Distribution Consortium
- Financial Institutions Connected to the Issuer and/or Participants of the Distribution Consortium
- Other Financial Institutions
- Other Corporation connected to the issuer and/or the Participants of the Distribution Consortium
- Other Corporations
- Partners, Directors, Employees, Agents and other Persons connected to the issuer and/or the Participants of the Distribution Consortium
- Other Buyers

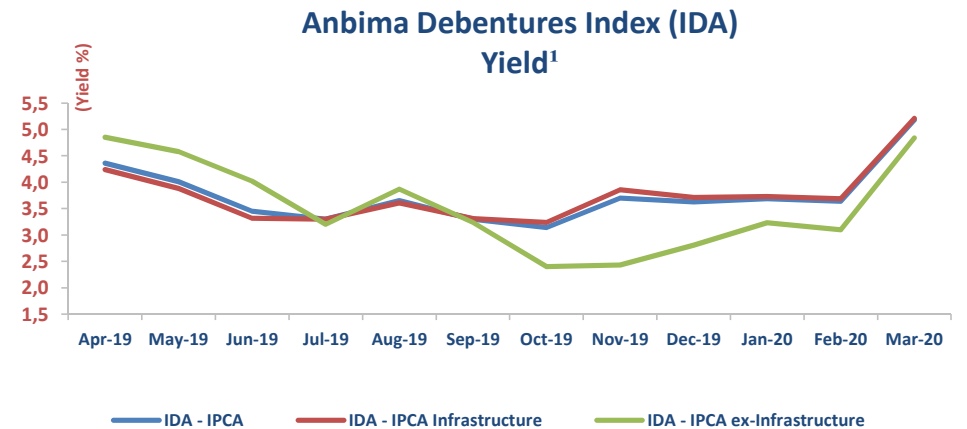
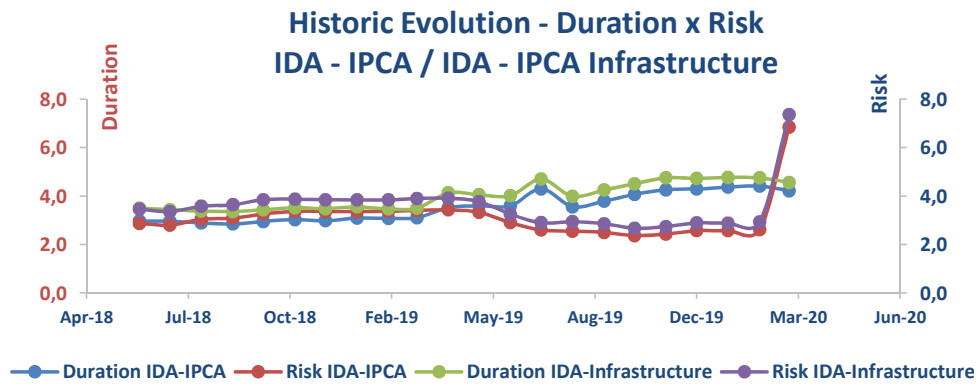
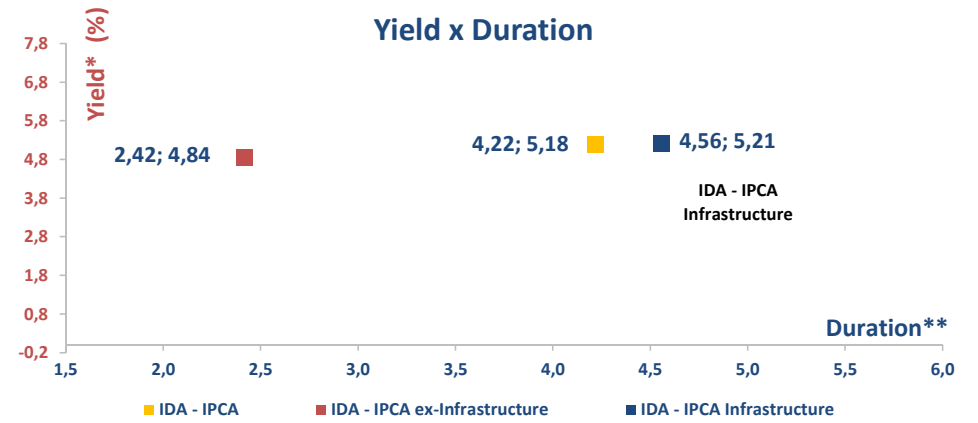
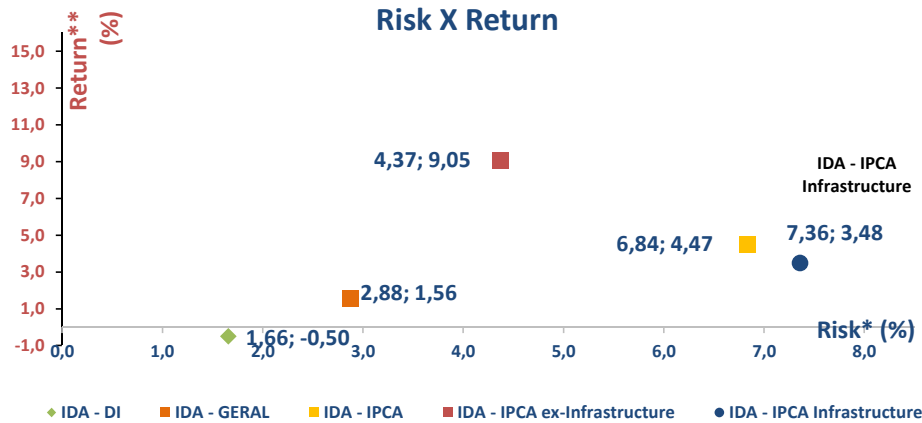


**BNDES' Disbursements with Infrastructure**



Source: Anbima and BNDES  
Elaborated by SPE/ME

Anbima Debentures Index (IDA)



Source: Anbima  
Elaborated by SPE/ME

- \* Annualized volatility of daily returns for the last twelve months
- \*\* 12-month cumulative return
- \*\*\* Weighted average of the index component fees for their respective holdings in the indices
- \*\*\*\* Duration of macaulay expressed in years (252 d.u.)
- \*\*\*\*\* (1) Gross income tax data

**Note:**  
Analysis based on Anbima IDA Debentures, composed of a family of indexes representing market price trends for a debenture portfolio. It is divided into two sub-indices according to the respective securities indexes - DI (Interbank Deposits and IPCA - Consumer Price Index).



**Approved Projects up to March 2020**  
(Includes projects having or not having issued infrastructure Debentures)

Sectors	Investments million								Total CAPEX Issued	Total Investments BRL million
	2012/2013	2014	2015	2016	2017	2018	2019	2020		
<b>Transportation</b>	<b>17,685.9</b>	<b>18,952.0</b>	<b>13,024.6</b>	<b>5,400.7</b>	<b>29,568.1</b>	<b>13,048.1</b>	<b>496.9</b>	<b>0.0</b>	<b>80,257.3</b>	<b>98,176.3</b>
Toll Road	12,563.1	4,726.4	974.7	4,972.7	18,021.6	5,630.6	0.0	0.0	43,635.9	46,889.0
Railways	5,122.8	2,785.8	11,796.9	0.0	11,546.5	6,331.4	430.3	0.0	24,245.7	38,013.7
Airports	0.0	8,887.9	0.0	0.0	0.0	0.0	0.0	0.0	8,887.9	8,887.9
Ports	0.0	2,551.9	253.0	428.1	0.0	1,086.1	66.7	0.0	3,487.8	4,385.6
<b>Energy</b>	<b>86,005.5</b>	<b>13,494.7</b>	<b>73,298.5</b>	<b>13,009.4</b>	<b>46,826.1</b>	<b>63,911.3</b>	<b>29,022.6</b>	<b>3,372.9</b>	<b>196,480.4</b>	<b>328,940.8</b>
Electric Power Transmission Line	5,083.4	592.0	432.7	806.1	25,527.6	8,061.8	15,477.8	336.0	42,378.2	56,317.5
Hydroelectric Power Plants	62,001.9	3,740.5	46,916.7	1,353.9	445.8	21,789.6	0.0	0.0	87,618.2	136,248.5
Thermoelectric	4,123.9	1,111.1	5,075.5	3,246.3	860.9	4,563.0	1,088.8	365.1	7,565.1	20,434.5
Small Hydro	125.5	68.5	1,017.1	587.6	939.2	461.1	509.6	450.0	1,255.2	4,158.5
Gas	2,033.5	0.0	2,209.4	0.0	0.0	0.0	0.0	0.0	5,487.0	4,243.0
Wind Farms	5,637.3	7,982.5	11,671.8	6,645.5	4,774.7	10,969.6	5,762.8	738.4	19,302.4	54,182.6
Pipelines	7,000.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7,000.0
Oil	0.0	0.0	5,975.3	0.0	0.0	0.0	0.0	0.0	5,975.3	5,975.3
Distribution	0.0	0.0	0.0	370.0	11,755.7	11,840.3	4,504.0	1,157.4	20,359.0	29,627.5
Photovoltaics Energy	0.0	0.0	0.0	0.0	2,522.1	6,225.9	979.6	125.9	3,524.6	9,853.5
Atomic Energy	0.0	0.0	0.0	0.0	0.0	0.0	700.0	0.0	700.0	700.0
Biofuels	0.0	0.0	0.0	0.0	0.0	0.0	0.0	200.0	2,315.4	200.0
<b>Telecoms</b>	<b>0.0</b>	<b>0.0</b>	<b>2,882.1</b>	<b>2,882.1</b>	<b>2,882.1</b>	<b>2,882.1</b>	<b>2,882.1</b>	<b>2,882.1</b>	<b>10,243.3</b>	<b>17,292.8</b>
Telecoms	0.0	0.0	2,882.1	2,882.1	2,882.1	2,882.1	2,882.1	2,882.1	10,243.3	17,292.8
<b>Sanitation/Urban Mobility</b>	<b>0.0</b>	<b>0.0</b>	<b>1,095.4</b>	<b>125.8</b>	<b>1,405.5</b>	<b>6,871.5</b>	<b>0.0</b>	<b>0.0</b>	<b>3,252.8</b>	<b>9,498.1</b>
Water and Sewerage	0.0	0.0	288.1	125.8	1,405.5	269.4	0.0	0.0	2,445.5	2,088.7
Urban Mobility	0.0	0.0	807.3	0.0	0.0	6,602.1	0.0	0.0	807.3	7,409.4
<b>Total.....</b>	<b>103,691.4</b>	<b>32,446.6</b>	<b>90,300.6</b>	<b>21,418.0</b>	<b>80,681.7</b>	<b>86,713.0</b>	<b>32,401.6</b>	<b>6,255.0</b>	<b>290,233.8</b>	<b>453,908.0</b>

Source: Ministerial Orders issued and Linked Entities  
Elaborated by SPE/ME

**Approved Projects up to March 2020**  
(Includes projects having or not having issued infrastructure Debentures)

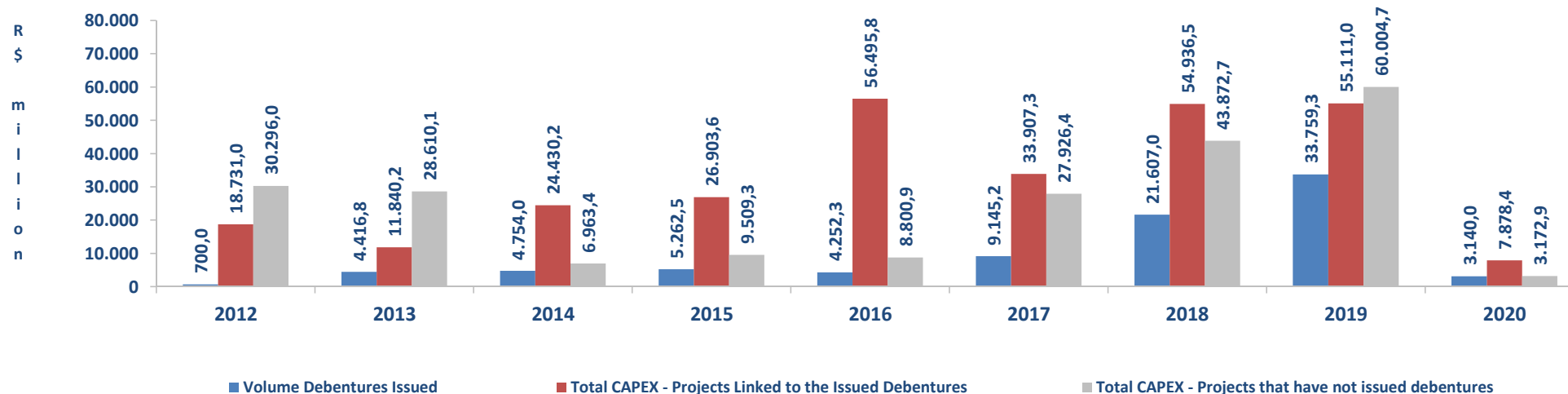
Sectors	Approved Projects								Quantity Portarias with Issuance of Debentures	Total Approved Projects
	2012/2013	2014	2015	2016	2017	2018	2019	2020		
<b>Transportation</b>	<b>8</b>	<b>11</b>	<b>5</b>	<b>4</b>	<b>10</b>	<b>11</b>	<b>2</b>	<b>0</b>	<b>48</b>	<b>51</b>
Toll Road	6	5	3	3	8	1	0	0	29	26
Railways	2	2	1	0	2	4	1	0	10	12
Airports	0	2	0	0	0	0	0	0	2	2
Ports	0	2	1	1	0	6	1	0	7	11
<b>Energy</b>	<b>86</b>	<b>90</b>	<b>159</b>	<b>94</b>	<b>146</b>	<b>167</b>	<b>71</b>	<b>0</b>	<b>394</b>	<b>813</b>
Electric Power Transmission Line	12	2	3	8	51	24	20	0	80	120
Hydroelectric Power Plants	6	5	11	3	2	7	0	0	28	34
Thermoelectric	5	1	3	2	1	2	1	0	5	15
Small Hydro	1	1	9	6	4	3	5	0	14	29
Gas	1	0	1	0	0	0	0	0	3	2
Wind Farms	60	81	131	73	41	73	35	0	194	494
Pipelines	1	0	0	0	0	0	0	0	0	1
Oil	0	0	1	0	0	0	0	0	1	1
Distribution	0	0	0	2	27	19	4	0	38	52
Photovoltaics Energy	0	0	0	0	20	39	5	0	25	64
Atomic Energy	0	0	0	0	0	0	1	0	1	1
Biofuels	0	0	0	0	0	0	0	0	5	0
<b>Telecoms</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>5</b>
Telecoms	0	0	1	1	1	2	0	0	4	5
<b>Sanitation/Urban Mobility</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>3</b>	<b>5</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>13</b>
Water and Sewerage	0	0	1	3	5	2	0	0	11	11
Urban Mobility	0	0	1	0	0	1	0	0	1	2
<b>Total.....</b>	<b>94</b>	<b>101</b>	<b>167</b>	<b>102</b>	<b>162</b>	<b>183</b>	<b>73</b>	<b>0</b>	<b>458</b>	<b>882</b>

Source: Ministerial Orders issued and Linked Entities  
Elaborated by SPE/ME

Summary Table - Volume issued of infrastructure debentures - Capex linked to the issued debentures and Projects that have not issued debentures

Status of Projects	Investment (R\$ million)									Investment Total (R\$ million)
	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Volume - debentures issued	700	4,416.8	4,754.0	5,262.5	4,252.3	9,145.2	21,607.0	33,759.3	3,140.0	87,037.1
CAPEX - Projects Linked to the issued Debentures	18,731	11,840.2	24,430.2	26,903.6	56,495.8	33,907.3	54,936.5	55,111.0	7,878.4	290,233.8
CAPEX - Projects that have not issued Debentures	30,296	28,610.1	6,963.4	9,509.3	8,800.9	27,926.4	43,872.7	60,004.7	3,172.9	219,156.4

### Approved Projects - Volume Emission and Capex

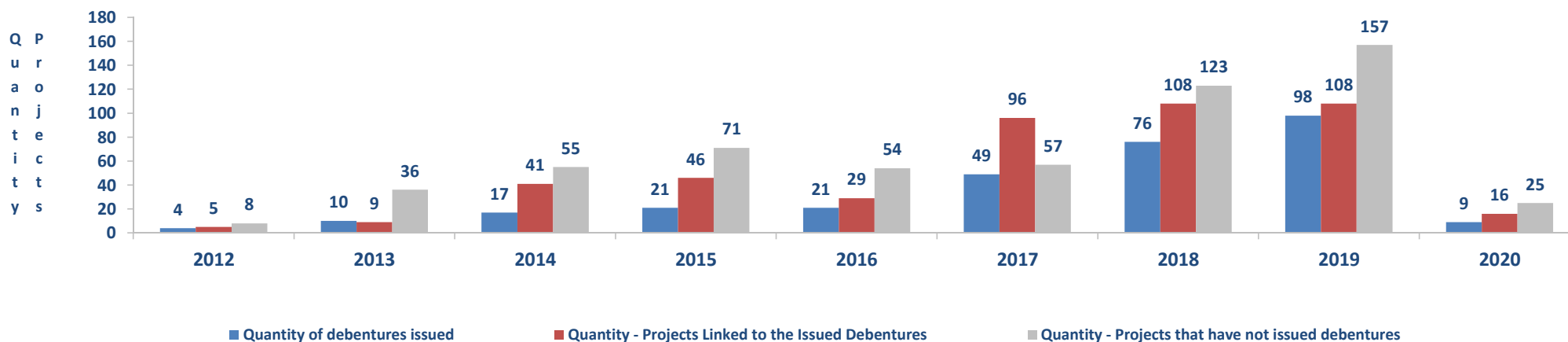


Source: Ministerial Orders issued and Linked Entities  
Elaborated by SPE/ME

Summary Table - Quantity issued of infrastructure debentures - Quantity of projects linked to the issued debentures and Quantity of projects that have not issued debentures

Status of Projects	Quantity of issued debentures and approved projects									Quantity
	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Volume - debentures issued	4	10	17	21	21	49	76	98	9	305
CAPEX - Projects Linked to the issued Debentures	5	9	41	46	29	96	108	108	16	458
CAPEX - Projects that have not issued Debentures	8	36	55	71	54	57	123	157	25	586

### Approved Projects - Quantity Emission and Quantity Waiting Emission



Source: Ministerial Orders issued and Linked Entities  
 Elaborated by SPE/ME

**Note :**

The difference between the amount of debentures issued and the number of Administrative Rules issued and Projects related to the debentures issued, is due to having more than one ordinance and project linked to a single debenture - example: Ventos de São Tomé Holding S / A (TOME12) . We had 01 debenture issued for 07 (seven) Administrative Rules, therefore, 07 (seven) authorized projects.

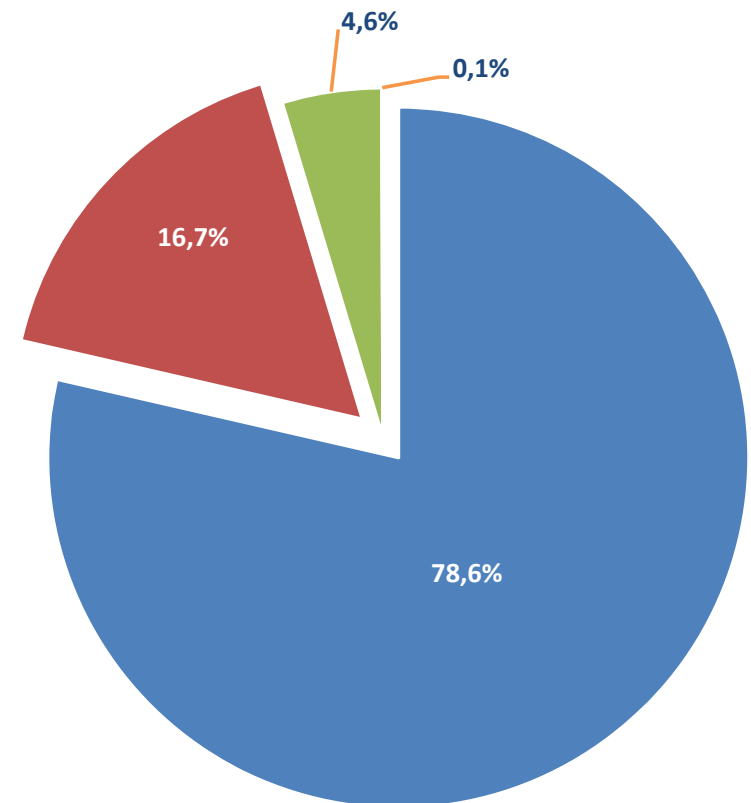
**Debenture Issue Potential - (Capex)<sup>1</sup>  
Infrastructure Projects Already Authorized  
(By Sector)**

Sector	Capex Awaiting the emission (R\$ million)	(%)
Energy	172,256.0	78.6%
Transportation / Logistics	36,692.0	16.7%
Sanitation / Urban Mobility	10,086.0	4.6%
Telecommunications	122.4	0.1%
<b>Total.....</b>	<b>219,156.4</b>	<b>100%</b>

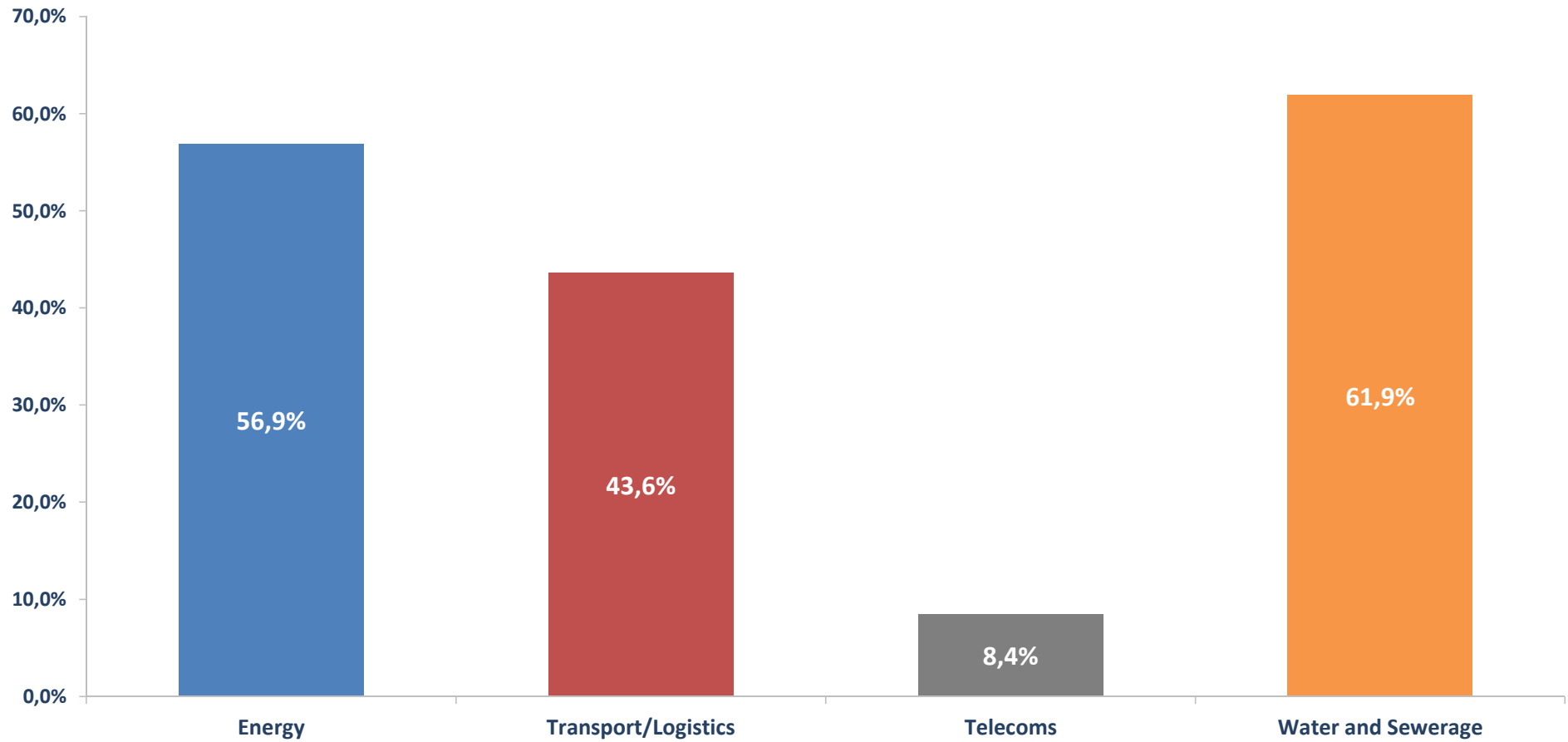
Source: Anbima and Ministerial ordinances  
Elaborated by SPE/ME

(1) Total Capex of Ordinances Awaiting Debenture Issuance.

- Energy
- Transportation / Logistics
- Sanitation / Urban Mobility
- Telecommunications



Financial leverage in infrastructure projects  
(Sector)



Source: Ministerial Orders issued and Linked Entities  
Elaborated by SPE/ME

## Real Estate Receivables Certificate - CRI's according to Law # 12,431/2011

Summary of the Real Estate Receivables Certificates<sup>1</sup> - CRI 's

Sectors	Lead Coordinator	Quantity Issued	Total Offer (R\$ million)	Yield	Capitalization	Debtor	Due Date	Project
Oil and Gas	Banco Bradesco BBI S.A.	7,049	2,349.7	TR + 9,5 %	Anual	Petrobrás	2/26/2031	Comperj
Oil and Gas	Banco Bradesco BBI S.A.	4,949	1,649.7	TR + 9,5 %	Anual	Petrobrás	3/26/2031	RNEST - Refinaria Abreu e Lima
Drink	Banco Bradesco BBI S.A.	191	191.6	TR + 9,4 %	Anual	Cervejarias Reunidas Skol Caracu	1/15/2030	Projeto Rural Uberlândia
Real estate	Banco Bradesco BBI S.A.	78	78.0	TR + 9,5 %	Semestral	CCP Magnólia Empreendimentos Imobiliários Ltda	12/12/2031	Shopping Metropolitan Barra/RJ
Real estate	Banco Bradesco BBI S.A.	272	272.0	TR + 9,5 %	Semestral	Cyrela Commercial Properties S/A Empreendimentos e Participações	12/12/2031	Cédula de Crédito Imobiliário - CCI 02
Steel	Banco Bradesco BBI S.A.	59	59.0	TR + 9,8 %	Anual	Usinas Siderúrgicas de Minas Gerais - Usiminas	4/27/2025	Cédula de Crédito Bancário - CCB
Chemical and Pharmaceutical	Banco Bradesco BBI S.A.	170	170.0	TR + 9,6 %	Anual	Brainfarma, Cosmed e Hypermarcas	12/26/2026	Cédula de Crédito imobiliário - CCI Brainfarma
Metals and Mining	Banco Bradesco BBI S.A.	700	700.0	TR + 8,8 %	Anual	Vale S/A	4/20/2022	Complexo Portuário de Ponta Madeira/MA
<b>Total .....</b>		<b>13,468</b>	<b>5,470.0</b>					

Source : Cibrasec

Elaborated by SPE/ME

## Note:

(1) Mortgage-Backed securities guaranteed by real estate credits - real estate credit certificate - CCI representative of bank credit notes - CCB issued by Petrobras to Bradesco .

(2) Investment Amount may reach up to R \$ 25 billion in civil works and R\$ 20 billion in industrial assembly.

(3) Benefits for non-resident investors: zero income tax rate (IR) and zero tax. In case of investments from countries which are not subject to income tax rate of 20% or more ("tax havens"), tax benefits do not apply.

(4) Concerning non-resident investors in financial and capital markets.

## Minimum Requirements:

(i) Fixed rate or linked to price index-linked or TR - Referential Rate-linked. Total of partial use of floating rates is forbidden.

(ii) Weighted average term over four years;

(iii) No repurchase by the issuer or related party, in the first two years after issuing, nor bond redemption before its due date except in cases to be regulated by the National Monetary Council (CMN);

(iv) No resale commitment undertaken by the buyer;

(v) Coupon payments, if any, must be at least semi-annual;

(vi) Proof that the security is registered in clearing houses duly authorized by the Central Bank of Brazil or the CVM (Brazilian SEC); and

(vii) Simplified procedure to demonstrate the purpose of allocating the proceeds towards the future payment or reimbursement of expenses, costs or liabilities related to investment projects, including those relating to RD&amp;I.

## Brazilian Infrastructure Bonds Investment Funds - Fixed-Income Investment - March 2020

Infrastructure Bonds Investment funds	Quota-holder	Debentures	Net Equity	Debentures / Net Equity	Infrastructure Bonds Investment funds	Quota-holder	Debentures	Net Equity	Debentures / Net Equity
		(R\$ million)	(R\$ million)				(R\$ million)	(R\$ million)	
CA Indosuez Master	19,598	539.7	677.3	80%	Pasárgada Deb Inc	1	23.2	24.9	93%
VIC Infra Inv Inc Rf	259	60.5	73.1	83%	RB Cap Vitória Deb Inc FI	555	100.5	110.7	91%
BNP Paribas Plus Deb FI	49	17.2	18.6	92%	Crodo FI	11	65.1	68.2	95%
Bradesco Rf C. Priv	29	89.4	103.2	87%	TAO Infra FI Inc Rf	8	24.6	58.9	42%
CSHG AS 7.7 Rf	1	43.8	45.2	97%	SPEED Infra FI Rf Infra Inc	2	32.9	38.3	86%
CSHG Inf 392 Rf	4	576.2	635.1	91%	II Alocação Deb Inc FI	218	166.7	179.0	93%
XP Deb Inc M FI	18,914	699.1	799.3	87%	Precioso FI Inc Rf	4	33.1	35.7	93%
Fator Deb Inc Rf	460	53.0	61.4	86%	Votorantim FI Hedge Rf	220	113.7	136.2	84%
TFO CSHG FI Rf	34	47.8	54.3	88%	G5 Infra FI	91	45.5	46.9	97%
CSHG Omega Infra Rf	8	190.9	207.3	92%	Safrá Infra Premium FI	199	188.5	224.0	84%
Brasil Plural M Deb FI	443	21.6	23.2	93%	Monte Alegre FI Rf Inc	2	52.0	66.2	78%
FI Turmalina Inv Exterior	5	114.5	135.5	84%	Capitânea Deb Inc FI	121	29.3	35.5	82%
SDEUX Deb Inc FI	6	11.3	12.0	94%	IDA Deb inc FI	8	49.3	56.2	88%
Sul América Deb FI	461	38.4	40.2	96%	HIGH Income FI	77	77.5	91.6	85%
XPCE II FI	3	111.3	254.7	44%	Iridium Pioneer Deb Inc FI	3,966	349.7	351.5	100%
Pedra Negra FI Infra	19	323.9	364.5	89%	ZETA FI	4	182.4	219.6	83%
Butia Deb FI Rf	817	52.2	59.1	88%	Journey Cap Nammos	7	13.6	14.8	92%
Alocação Deb FI	203	159.4	184.4	86%	XP 60 Deb Inc Hedge M I FI	2,385	133.5	143.5	93%
Águia FI Infra	6	32.2	35.1	92%	Finor FI	6	74.0	86.6	85%
CA I Deb Inc M II FI Inf Rf	19,598	682.0	855.0	80%	III Alocação Deb Inc FI	214	172.3	206.9	83%
Scorpio Deb Inc FI	1	177.7	194.2	92%	Santander Hermes Rf FI	1	204.4	1,228.5	17%
Órama Deb Inc FI	3,368	58.7	68.3	86%	Santander FI Infla Rf FI	1,082	160.6	183.2	88%
Brasil Plural M II Deb Inc	9,158	214.7	232.1	93%	Santander Deb Inc CDI Rf FI	3,108	263.0	312.0	84%
AZ Quest M Deb Inc FI	2,038	145.0	154.6	94%	Silver OAK Deb Inc FI	3	17.8	20.5	87%
VIC Supra FI Rf Infra	396	361.0	451.5	80%	AF 1644 Deb Inc FI	1	48.7	60.2	81%
BNP Paribas FI Deb Rf	1,852	451.5	487.4	93%	Riska Deb Inc FI	8	21.7	26.0	84%
Dayacoval Deb Inc FI	4,077	99.5	105.4	94%	Deb Inc Pedra Azul FI	3	65.2	68.4	95%
RB Cap M Deb Inc FI	1,390	0.0	107.9	0%	EPL Deb Inc FI	1	40.9	46.3	88%
Brasil PI M Deb Inc TFO FI	1	66.4	74.1	90%	Agadir Rf FI Inc Em Infra	4	2.9	109.1	3%
Safrá Infra M FI	1,784	462.7	520.1	89%	Brasil Plu D In H M FI Mult	766	22.8	30.3	75%
Pasárgada Deb Inc	1	24.5	26.0	94%	Devant Deb Inc FI Rf	490	11.1	14.5	76%
RB Cap Vitória Deb Inc FI	7,790	129.1	138.6	93%	ARX Elbrus Deb Inc	7,307	159.1	208.4	76%



## Continuation - Brazilian Infrastructure Bonds Investment Funds - Fixed-Income Investment - March 2020

Infrastructure Bonds Investment funds	Quota-holder	Debentures	Net Equity	Debentures / Net Equity	Infrastructure Bonds Investment funds	Quota-holder	Debentures	Net Equity	Debentures / Net Equity
		(R\$ million)	(R\$ million)				(R\$ million)	(R\$ million)	
Sparta M A Deb Inc	2	338.6	393.6	86%	Voto FI Inc Hedge Plus Rf	65	19.3	27.5	70%
DLM Deb Inc FI Rf	2,871	71.1	94.2	76%	Guigui Fdo Inc de Inv Rf	3	78.8	41.4	190%
Devant Deb Inc FI Rf	477	9.9	14.1	71%	BB Top Rf FI Inc Infra	2,100	193.7	225.8	86%
ARX Elbrus Deb Inc	7,599	138.9	200.2	69%	Syco Inc Invest Em Infra Rf	3	12.4	16.6	74%
Panama K F Inc Inv e Inf Rf	1	19.8	22.1	89%	Cordia Deb Inc FI Rf	1	38.8	46.9	83%
Varese Kinea Infra FI Mult	1	44.3	46.8	95%	Safra Infra M III Rf FI	122	327.3	379.1	86%
BTG Pac Master Rf	883	103.9	130.4	80%	Safra Premiun Prof II Rf FI	143	149.6	166.2	90%
Journey Cap Endur Rf	3,607	116.9	142.8	82%	Alfa Gemini Master	1	20.4	27.1	75%
Deri Deb Inc FI	2	30.8	35.9	86%	Safra Infra Master Rf	600	53.6	65.8	81%
Avião III Deb Inc FI	1	4.5	5.7	78%	IV Alocação Infra Rf	137	78.8	103.3	76%
VBA Deb Inc FI	1	17.3	21.4	81%	Journey Cap Endur Plus FI	3	51.7	66.2	78%
Safra Infra M II FI Mult	323	233.3	259.2	90%	Sul Am Deb Hedge Adv FI Rf	220	8.2	11.7	70%
Triplaris K FI Em I Rf	1	37.6	38.9	97%	Visconde FI Inc Infra Rf	1	18.1	24.8	73%
Quasar Deb Inc FI Rf	2,721	60.1	83.6	72%	RFT Volga FI Rf	36	22.9	31.8	72%
RB Cap Deb Inc M II FI Mult	1,387	29.6	37.2	79%	Balista Deb Inc FI Mult C Priv	1	124.2	173.6	72%
Neblus Deb Inc FI	1	10.5	12.6	83%	Augme Rf Infra	5	2.0	27.6	7%
G5 SHLIMS FI Inc Infra	1	16.4	19.9	82%	Lididu K FI Infra Rf	1	9.7	9.9	97%
BB Primordium Rf FI Inc	3	41.6	54.0	77%	BTG Pac D IN M FI De Inv Rf	96	7.3	8.4	87%
G5 Max Infra FI Mult	1	4.7	6.4	74%	Infra Kinea Rf	1	40.2	42.1	95%
G3 Kinea FI Infra	4	29.8	33.9	88%	Vênus FI Infra Rf	4	67.2	88.9	76%
Degas Kinea Infra Rf	1	23.4	24.6	95%	ANLGC123 Infra Rf	2	6.4	9.8	66%
Fapatri Kinea Infra Rf	1	24.9	25.4	98%	Journey CA Ed J R M FI Rf	33	10.5	11.4	92%
Prata 51 Kinea FI Inc Rf	1	30.7	33.7	91%	Ativa FI Infra Rf	7	15.7	21.8	72%
Setola Kinea FI RF	4	38.0	39.3	97%	Icatu Seguros FI Infra Rf	1	153.4	258.4	59%
Rosa dos Ventos Kinea FI Rf	1	23.2	24.3	95%	Novo Fundo Infra Rf	201	69.9	79.4	88%
ARX Hedge Deb Inc FI Rf	2,630	129.9	175.0	74%	Icatu Vanguarda FI Infra Rf	23	13.9	22.7	61%
JGP Deb Incet M FI Rf	52	20.3	27.1	75%	Dado Rf Infra	3	11.5	12.8	90%
ARX Elb M II Deb Inc FI Mult	12,069	323.9	453.5	71%	Juquehy FI Infra Rf	1	8.4	26.9	31%
Huayna Kinea Infra Rf	4	23.6	24.8	95%	Icatu Vanguarda PG Rf	4	11.8	22.6	52%
Bram Rf Deb Inc Infra	1,259	215.2	272.4	79%	Murajuba Kinea FI Infra Rf	1	18.2	18.8	97%
					Total.....	19,221	3,160.0	3,683.7	81%

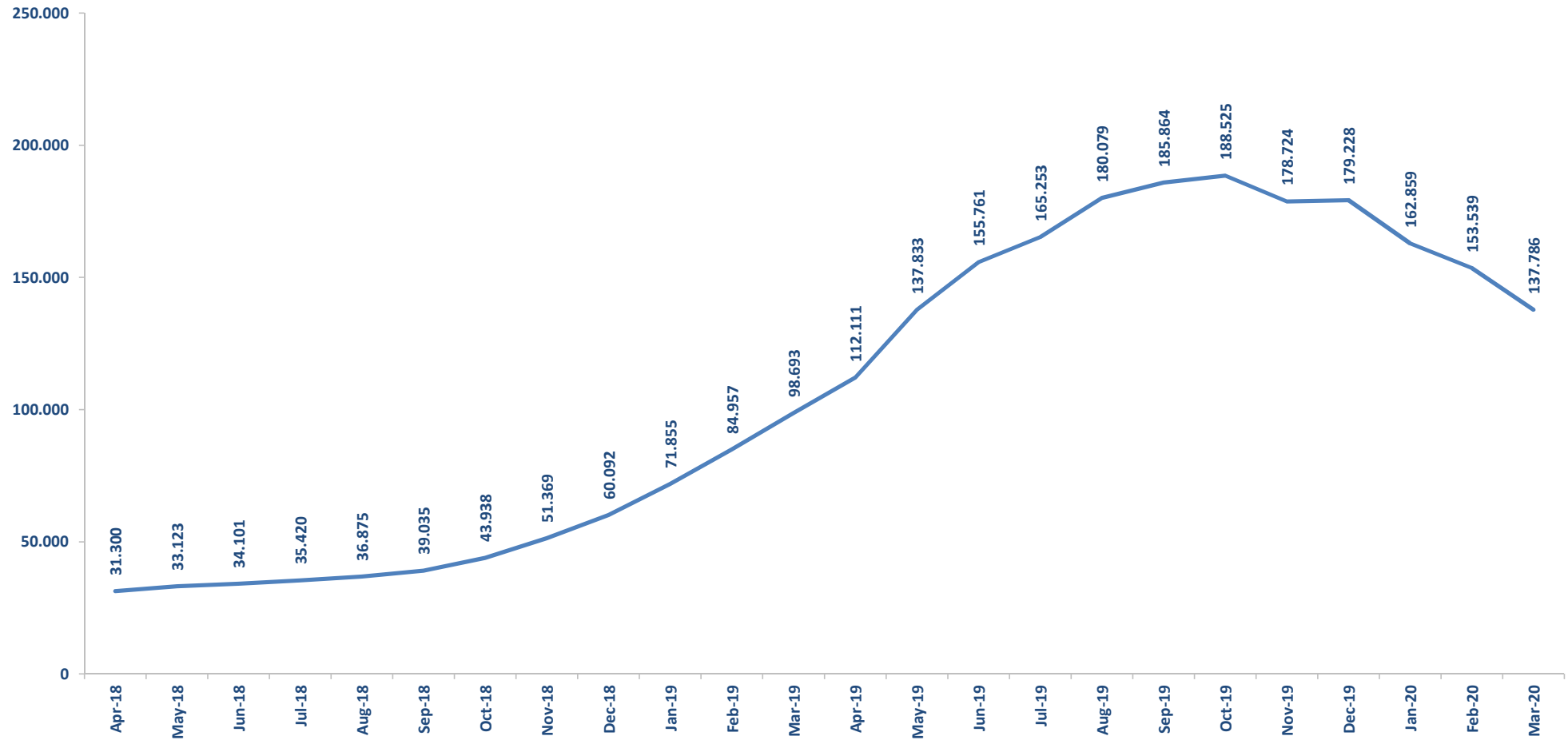
Source : Brazilian Securities Commission - CVM

Elaborated by SPE/ME

Note: (i) Requirements: Investments in Brazilian Infrastructure Bonds, as previously defined, must correspond to at least 67% of the Fund portfolio within the first two years and at least 85% in the remaining years. After the incorporation of the fund, there is a 180 days period to fulfill the investment requirements above.

Infrastructure Funds - Fixed-Income Investment

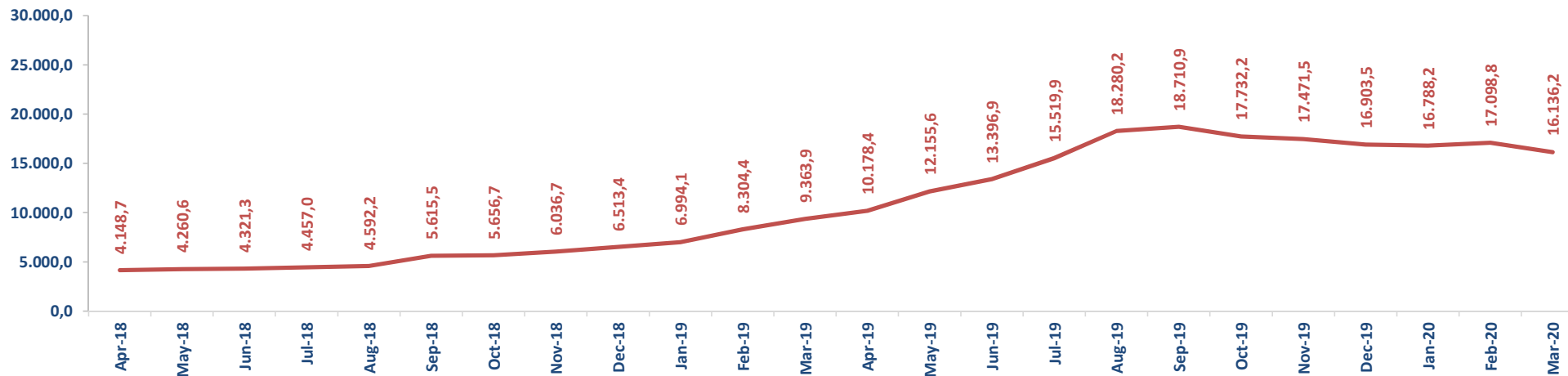
Fund quota-holders number Evolution



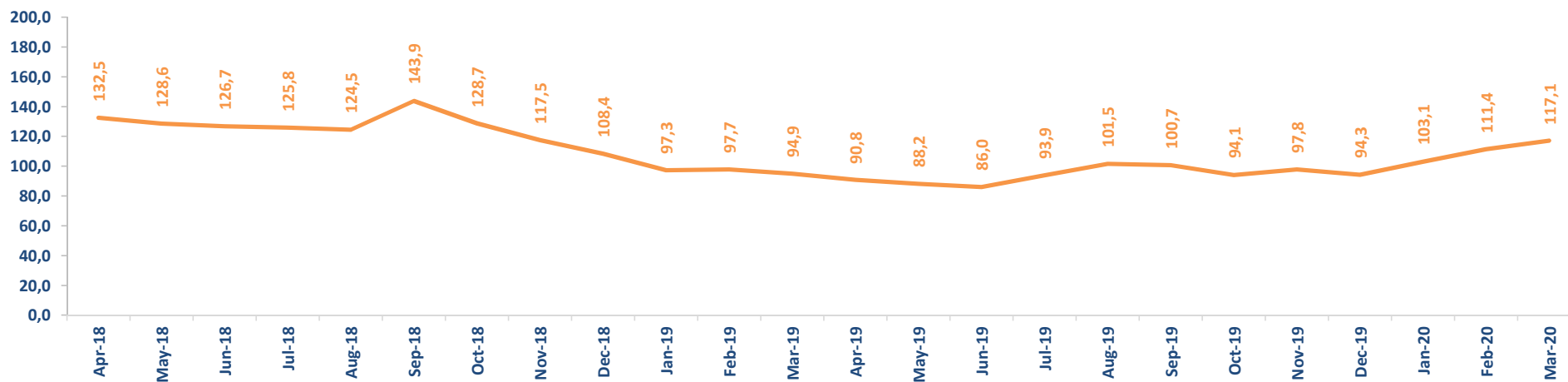
Source : Brazilian Securities Commission - CVM  
Elaborated by SPE/ME

Infrastructure Funds - Fixed-Income Investment

Net Equity Evolution - (x R\$ million)



Average Ticket - (x R\$ Thousand)



Source : Brazilian Securities Commission - CVM  
Elaborated by SPE/ME

## Infrastructure Credit Rights Investment Fund – FIDC - March 2020

Infrastructure Credit Rights Investment Fund	Credit Rights	Time Deposits and Other Financial	Quotas of Investment Funds	Government Securities Repurchase	Brazilian Government Bonds	Other	Net Equity	Credit Rights / Net Equity
	(R\$ million)	(R\$ million)	(R\$ million)	(R\$ million)	(R\$ million)	(R\$ million)	(R\$ million)	
BB Infra Votorantim Highland	296.7	0.0	0.0	0.0	15.6	9.0	321.3	92%
Kinea Infra I	816.9	0.0	0.0	22.9	12.3	(0.1)	852.0	96%
Vinci Energia Sustentável	396.1	0.0	11.1	0.0	0.0	(5.9)	401.3	99%
<b>Total .....</b>	<b>1,509.6</b>	<b>0.0</b>	<b>11.1</b>	<b>22.9</b>	<b>27.9</b>	<b>3.1</b>	<b>1,574.6</b>	<b>96%</b>

Source : Brazilian Securities Commission - CVM

Elaborated by SPE/ME

**Note :**

(i) Benefits for non-resident investors: zero income tax rate (IR) and zero tax. In the case of investments from countries which are not subject to an income tax rate of 20% or more ("tax havens"), tax benefits don't not apply.

(ii) The fund must have a minimum term of six years.

(iii) No full or partial payment for the main quotas during the first two years counted as of the closing date of the public offering of quotas that make up the initial assets of the fund, except in cases of early settlement of the fund provided for in its regulations;

(iv) No acquisition of quotas by their seller or transferor or by parties related to these except in the case of quotas subordinated to others for purposes of e payment and redemption;

(v) Deadlines for partial redemption of quotas, including those from incorporated income, if any, must be at least 180 days one hundred eighty days apart;

(vi) Proof that the quotas are admitted to trading on an organized securities market or registered in a registry system duly authorized by the Central Bank of Brazil or the CVM (Brazilian SEC) under their respective areas of competence;

(vii) Simplified procedure to demonstrate the purpose of allocating the proceeds of the transaction to investment projects, including those focused on research, development and innovation;

(viii) At least eighty-five percent of equity represented by receivables, and the remaining portion by federal government securities, repurchase agreements backed by government bonds or quotas from mutual funds that invest in federal government bonds.

FIP-IE and FIP-PD&I<sup>1</sup> under the terms of Laws # 11,478/2007 and # 12,431/2011 - March 2020

Infrastructure funds <sup>2</sup>	Stocks	Investment Fund Quotas	Federal Government Bonds	Government Securities Repurchase	Simple Debentures	Other Applications	Forward Market Buyer	Other Values	Net Equity
	(R\$ million)	(R\$ million)	(R\$ million)	(R\$ million)	(R\$ million)	(R\$ million)	(R\$ million)	(R\$ million)	(R\$ million)
FIP Infra Energias Renováveis	216.4	0.1	0.0	0.0	0.0	0.0	0.0	395.4	611.9
FIP Infra BB Votorantim Energia Sust II	172.6	34.8	0.0	0.0	0.0	0.0	0.0	(0.4)	207.0
FIP Infra BB Votorantim Energia Sust III	165.9	50.2	0.0	0.0	0.0	0.0	0.0	(0.4)	215.7
FIP Infra BB Votorantim Energia Sust I	35.4	8.5	0.0	0.0	0.0	0.0	0.0	(0.1)	43.8
FIP CZ infra	7.3	0.0	13.9	0.0	0.0	0.0	0.0	(13.8)	7.4
FIP ANESSA Infra	43.1	0.0	0.1	0.0	0.0	0.0	0.0	0.4	43.6
FIP Olime Infra	10.0	9.1	0.0	0.0	0.0	0.0	0.0	(0.1)	19.0
FIP Porto Sudeste Royalties Infra	285.9	0.6	0.0	0.0	0.0	0.0	0.0	(0.1)	286.4
FIP Paranaguá Infra	36.7	0.0	0.0	0.0	0.0	0.0	0.0	(0.3)	36.4
FIP Prisma Hélios Infra	47.7	0.0	0.0	6.6	0.0	157.6	0.0	(0.2)	211.7
FIP CSHG Perfin Aplo 15	100.0	0.0	0.0	105.6	0.0	0.0	0.0	(99.9)	105.8
FIP Logística Granéis I Infra	12.5	0.0	0.0	0.0	0.0	0.0	0.0	1.0	13.5
FIP Prosperidade Infra	131.1	0.8	0.0	0.0	0.0	0.0	0.0	1.5	133.4
FIP Origem Infra	179.3	0.1	0.0	0.0	0.0	0.0	0.0	(130.2)	49.1
FIP Perfin Ares I	0.0	0.0	0.0	7.6	0.0	150.0	0.0	(120.7)	36.8
FIP CSHG Perfin Aplo 14	10.0	0.0	0.0	0.1	0.0	0.0	0.0	(9.6)	0.5
FIP Perfin Ares 2	194.9	0.0	0.0	38.2	0.0	0.0	0.0	(76.9)	156.2
<b>Total .....</b>	<b>1,648.6</b>	<b>104.2</b>	<b>14.0</b>	<b>158.1</b>	<b>0.0</b>	<b>307.6</b>	<b>0.0</b>	<b>(54.4)</b>	<b>2,178.1</b>

Source : Brazilian Securities Commission - CVM

Produced by SPE/ME

## Note:

(1) FIP-IE: Investment Fund (investment in infrastructure) and FIP-PD &amp; I: Investment Fund for Participation in Research, Development and Innovation-Intensive Economic Production.

(2) (i) The FIP-IE and FIP-PD&amp;I must have a minimum of 5 quota holders and no quota holder may hold more than 40% of the quotas issued by Fund (FIP-IE or FIP-PD&amp;I) or earnings above 40% of the fund's earnings.

(ii) The FIP-IE and FIP-PD&amp;I must be closed-end fund.

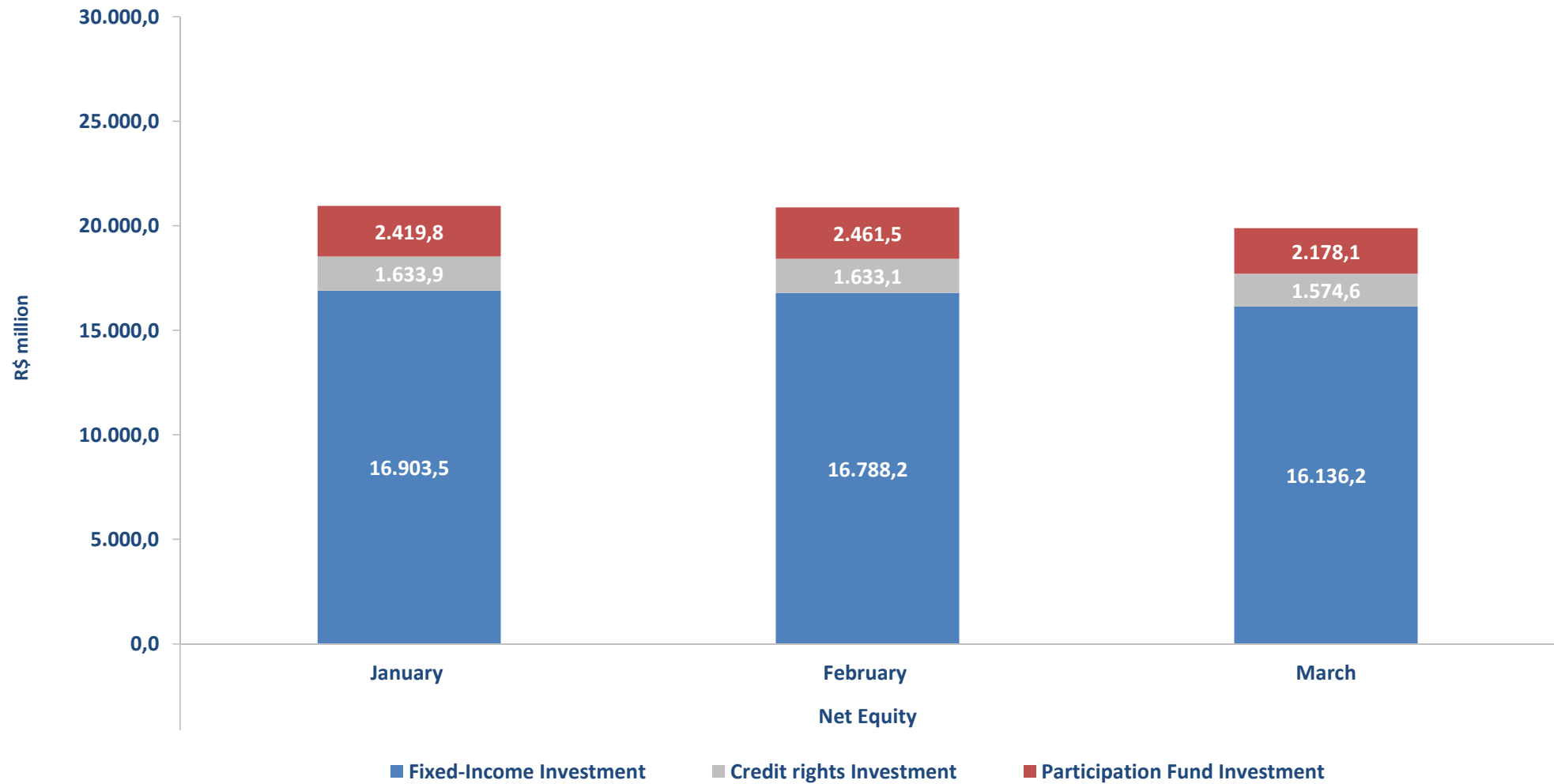
(iii) The FIP-IE and FIP-PD&amp;I must maintain a minimum of 90% of its net worth invested in shares, subscription bonds, debentures (convertible or not into shares) or other bonds issued by either a publicly or closely-held company.

(iv) The company must be aware of infrastructure projects related to the energy, transportation, water and sewage treatment, and irrigation sectors.

(v) The FIP-IE and the FIP-PD&amp;I must participate in the decision-making process of the issuer company with effective influence on the definition of its strategic policy and management.

(vi) Taxes: exemption for individuals and 15% rate for companies.

Brazilian Infrastructure Bonds Investment Funds - Net Worth Growth



Source: Brazilian Securities Commission - CVM  
Produced by SPE/ME

## Annex 2

## Infrastructure Bonds: Infrastructure Investment Projects - 2020

Issuer	Ticker	Distribution Date	Due Date	Offer type	Maturity (years)	Duration <sup>1</sup> (years)	Value (R\$ million)	Yield <sup>2</sup>	Sector	Spread Over NTN-B	Rating (local)
Transmissora Aliança Energia Elétrica S.A	TAE18	1/17/2020	12/15/2044	ICVM 476	25	12.50	300.0	IPCA + 4,77%	Energy	1.28%	Aaa (br) Moody's
Eren Dracena Participações S/A	EREN13 EREN23	2/19/2020	9/15/2037	ICVM 476	18	7.60	215.0 65.0	IPCA + 4,70%	Energy	1.77%	AAA (bra) Fitch
Furnas Centrais Elétricas	FURN21	2/20/2020	11/15/2029	ICVM 476	10	6.86	800.0	IPCA + 4,08%	Energy	1.20%	AA (bra) Fitch
Viarendon Concessionária de Rodovia S.A.	VRDN12	2/27/2020	12/15/2034	ICVM 476	15	8.40	700.0	IPCA + 5,55%	Energy	2.15%	AA (bra) Fitch
SPE Transmissora de Energia Linha Verde II S.A	SPLV11	3/6/2020	12/15/2034	ICVM 476	24	13.24	210.0	IPCA + 5,33%	Energy	1.75%	AA (bra) Fitch
Neoenergia Itaporana Transmissão Energia S.A.	NITA11	3/13/2020	2/15/2045	ICVM 476	25	10.70	300.0	IPCA + 4,50%	Energy	N/D	AA (bra) Fitch
CIA Saneamento do Paraná - Sanepar	SAPR10	3/20/2020	3/15/2027	ICVM 476	7	6.03	350.0	IPCA + 4,66%	Water and Sewerage	1.20%	AA (bra) Fitch
Cerradinho Bioenergia S.A	CERR16	3/30/2020	3/15/2027	ICVM 476	7	4.92	200.0	IPCA + 4,15%	Energy	0.77%	AA (bra) Fitch
<b>Total.....</b>							<b>3,140.0</b>				

Source: Anbima, Rating reports and Debentures Agreements  
Elaborated by SPE/ME

## Note:

(1) In this presentation we consider duration (Macaulay duration) as a measure of the sensitivity of the price (value of principal) of a infrastructure Bond expressed as a number of years. This indicator involving present value, yield, coupon and final maturity.

(2) Consumer Price Index - CPI (IPCA)

## Infrastructure Bonds: Infrastructure Investment Projects - 2019

Issuer	Ticker	Distribution Date	Due Date	Offer type	Maturity (years)	Duration <sup>1</sup> (years)	Value (R\$ million)	Yield <sup>2</sup>	Sector	Spread Over NTN-B	Rating (local)
Januba Transmissora de Energia S.A.	JTEE11	1/16/2019	7/15/2033	ICVM 476	15	8.10	224.0	IPCA + 4,50%	Energy	0.20%	Aaa (br) Moody's
Equatorial Transmissora 1 SPE S.A.	EQTS11	2/2/2019	1/15/2033	ICVM 476	14	7.92	55.0	IPCA + 4,85%	Energy	0.48%	AA+ (bra) Fitch
Equatorial Transmissora 3 SPE S.A.	EQSP11	2/4/2019	1/15/2033	ICVM 476	14	7.92	45.0	IPCA + 4,80%	Energy	0.43%	AA+ (bra) Fitch
Equatorial Transmissora 3 SPE S.A.	EQSP21	2/4/2019	1/15/2034	ICVM 476	15	8.03	45.0	IPCA + 4,65%	Energy	0.28%	AA+ (bra) Fitch
Equatorial Transmissora 2 SPE S.A.	EQTN11	2/4/2019	1/15/2033	ICVM 476	14	7.92	45.0	IPCA + 4,85%	Energy	0.48%	AA+ (bra) Fitch
Petróleo Brasileiro S/A - Petrobras	PETR16	2/12/2019	1/15/2026	ICVM 400	7	6.12	898.4	IPCA + 4,05%	Energy	(0.20)%	AA (bra) Fitch
Petróleo Brasileiro S/A - Petrobras	PETR26	2/12/2019	1/15/2029	ICVM 400	10	8.13	1,694.1	IPCA + 4,22%	Energy	(0.10)%	AA (bra) Fitch
Rumo Malha Norte S/A.	RUMOB1	2/22/2019	2/15/2026	ICVM 476	7	N/D	500.0	IPCA + 4,68%	Transport	N/D	AA+ (bra) Fitch
Porto Primavera Transmissora S.A.	PPTE11	3/1/2019	2/15/2029	ICVM 476	10	6.20	112.3	IPCA + 4,45%	Energy	0.31%	AAA (bra) Fitch
COELCE - Estado do Ceará	COCE27	3/15/2019	2/15/2026	ICVM 476	7	4.57	300.0	IPCA + 4,50%	Energy	0.37%	AAA (bra) Fitch
Rumo Malha Norte S/A.	RUMOA2	3/19/2019	2/15/2029	ICVM 400	10	8.00	641.1	IPCA + 4,50%	Transport	0.23%	AA+ (bra) Fitch
Cia Águas de Itapema	ITPE12	3/22/2019	2/15/2029	ICVM 476	10	4.35	600.0	IPCA + 7,07%	Water and Sewerage	0.30%	Ba3 (br) Moody's
Eólica Bons Ventos da Serra 2 S.A.	GEBV11	3/29/2019	6/30/2033	ICVM 476	14	N/D	100.0	IPCA + 6,50%	Energy	N/D	Ba3 (br) Moody's
Eólica Bons Ventos da Serra 2 S.A.	GEBV11	3/29/2019	6/30/2033	ICVM 476	14	6.44	56.5	IPCA + 6,50%	Energy	2.44%	Aa3 (br) Moody's
AES Tietê S/A	TIET39	4/17/2019	3/15/2029	ICVM 476	10	7.51	178.9	IPCA + 4,71%	Energy	0.35%	AA+ (bra) Fitch
Mata de Santa Genebra Transmissão S/A	MSGT12	4/22/2019	11/15/2030	ICVM 476	12	6.10	210.0	IPCA + 4,95%	Energy	0.69%	AA- (bra) Fitch
Cutia Empreendimentos Eólicos S.A	CUTI11	4/29/2019	12/15/2031	ICVM 476	13	6.00	360.0	IPCA + 5,88%	Energy	1.55%	AA- (bra) Fitch
MRS Logística S.A.	MRSL19	4/30/2019	4/15/2024	ICVM 476	5	4.50	367.2	IPCA + 4,10%	Transport	1.06%	AAA (bra) Fitch
Energisa S.A	ENGIA1	5/3/2019	4/15/2026	ICVM 476	7	6.13	500.0	IPCA + 4,62%	Energy	0.35%	AAA (bra) Fitch
CIA. Energética Canoas	KNOA11	5/10/2019	1/15/2031	ICVM 476	12	5.91	21.8	IPCA + 6,96%	Energy	2.50%	AA- (bra) Fitch



## Continuation – 2019

Issuer	Ticker	Distribution Date	Due Date	Offer type	Maturity (years)	Duration <sup>1</sup> (years)	Value (R\$ million)	Yield <sup>2</sup>	Sector	Spread Over NTN-B	Rating (local)	
Centrais Elétricas Bras S.A - Eletrobras	ELET42	5/17/2019	5/15/2029	ICVM 476	10	7.50	700.0	IPCA + 5,18%	Energy	1.00%	AAA (bra) Fitch	
CIA Energética do RN - Cosern	CSRN19	5/22/2019	4/15/2026	ICVM 476	7	6.12	179.5	IPCA + 4,25%	Energy	0.13%	AAA (bra) Fitch	
	CSRN29		4/15/2024		5	7.48	38.5	IPCA + 4,50%		0.22%		
Equatorial Transmissora 5 SPE S.A.	EQTC11	5/23/2019	4/15/2039	ICVM 476	20	11.26	66.0	IPCA + 4,85%	Energy	0.56%	AA+ (bra) Fitch	
Equatorial Transmissora 8 SPE S.A.	EQTR11	5/23/2019	4/15/2039	ICVM 476	20	11.26	102.0	IPCA + 4,85%	Energy	0.56%	AA+ (bra) Fitch	
	EQTR21				20	11.26	87.0			0.56%		
Equatorial Transmissora 7 SPE S.A.	ETSP12	5/23/2019	4/15/2039	ICVM 476	20	11.26	130.0	IPCA + 4,85%	Energy	0.56%	AA+ (bra) Fitch	
Transmissora Aliança S.A.	TAEE26	5/24/2019	5/15/2044	ICVM 476	25	14.00	210.0	IPCA + 5,50%	Energy	0.95%	AAA (bra) Fitch	
Omega Geração S.A.	OMGE41	5/24/2019	5/15/2027	ICVM 476	8	6.50	150.0	IPCA + 5,00%	Energy	0.83%	AA (bra) Fitch	
Eneva S.A.	ENEV32	5/31/2019	5/15/2029	ICVM 476	10	7.33	500.0	IPCA + 5,05%	Energy	0.96%	AAA (bra) Fitch	
	BTLM11				9/15/2031	12	4.04			12.7		2.01%
	BTLM21				4/15/2031	12	4.81			12.5		2.01%
	BTLM31				5/15/2031	12	4.98			12.7		2.01%
	BTLM41				6/16/2031	12	5.04			12.3		2.01%
	BTLM51				7/15/2031	12	5.11			12.4		2.01%
	BTLM61				8/15/2031	12	5.20			12.4		2.01%
ViaPaulista S.A	VPLT12	6/18/2019	6/15/2027	ICVM 476	8	4.90	400.0	IPCA + 3,94%	Transport	0.40%	brAAA (S&P)	
Eletropaulo SP S.A.	ELPLB4	6/28/2019	5/15/2026	ICVM 476	7	6.17	800.0	IPCA + 4,01%	Energy	0.02%	AAA (bra) Fitch	
Babilônia Holding S.A.	BBLN11	7/2/2019	11/15/2033	ICVM 476	14	8.75	87.0	IPCA + 4,24%	Energy	0.75%	Ba3 (br) Moody's	
Hidrelétrica Fockink S.A.	HFCK11	7/5/2019	5/15/2034	ICVM 476	15	7.43	22.0	IPCA + 7,95%	Energy	4.45%	A- (bra) Fitch	
Aliança Geração Energia S.A.	ALIG12	7/8/2019	12/15/2029	ICVM 476	11	5.75	77.0	IPCA + 3,65%	Energy	0.43%	AAA (bra) Fitch	
Ageo Terminais e Armazéns Gerais S.A.	AGEO24	7/11/2019	7/15/2025	ICVM 476	6	4.60	30.0	IPCA + 3,99%	Transport	0.96%		
Neoenergia S.A.	NEOE16	7/17/2019	6/15/2029	ICVM 400	10	7.68	802.8	IPCA + 4,07%	Energy	0.20%	brAAA (S&P)	
	NEOE26		6/15/2033		14	7.40	491.7	IPCA + 4,22%		0.30%		
Cemig Distribuição S.A.	CMGD27	7/19/2019	6/15/2026	ICVM 476	7	5.76	1,500.0	IPCA + 4,10%	Energy	0.25%	brA+ (S&P)	
VDB F2 Geração Energia S.A.	VDBF12	7/19/2019	4/15/2033	ICVM 476	14	7.70	106.0	IPCA + 3,87%	Energy	0.65%	AAA (bra) Fitch	
CIA Saneamento Básico SP- SABESP	SBSPC4	7/24/2019	7/15/2026	ICVM 400	7	6.37	100.0	IPCA + 3,20%	Water and Sewerage	0.19%	brAAA (S&P)	
	SBSPD4		7/15/2029		10	7.89	300.0	IPCA + 3,37%		0.93%		

## Continuation – 2019

Issuer	Ticker	Distribution Date	Due Date	Offer type	Maturity (years)	Duration <sup>1</sup> (years)	Value (R\$ million)	Yield <sup>2</sup>	Sector	Spread Over NTN-B	Rating (local)
Tropicália Transmissora Energia S.A.	TRPI13	7/26/2019	8/15/2043	ICVM 476	24	12.00	407.0	IPCA + 5,09%	Energy	1.45%	Aaa (br) Moody's
EDP-Transmissão SP-MG S.A.	MGSP12	8/6/2019	7/15/2039	ICVM 476	20	10.50	800.0	IPCA + 4,45%	Energy	0.85%	AA (bra) Fitch
Copel Geração e Transmissão S.A.	CPGT26	8/7/2019	7/15/2025	ICVM 476	6	5.50	200.0	IPCA + 3,90%	Energy	0.80%	AA- (bra) Fitch
Engie Brasil Energia S.A.	EGIE19	8/7/2019	7/15/2026	ICVM 400	7	5.86	576.1	IPCA + 3,70%	Energy	0.48%	AAA (bra) Fitch
	EGIE29		7/15/2029		10	7.72	539.7	IPCA + 3,90%		0.58%	
	EGIE39		7/15/2026		7	5.84	378.8	IPCA + 3,60%		0.38%	
	EGIE49		7/15/2029		10	7.72	105.4	IPCA + 3,70%		0.38%	
Tibagi Energia SPE S.A.	TBEG11	8/30/2019	7/15/2035	ICVM 476	16	7.72	210.0	IPCA + 5,32%	Energy	1.85%	AAA (bra) Fitch
VLI Multimodal S/A	VLIM12	9/16/2019	8/15/2025	ICVM 476	6	5.00	120.0	IPCA + 3,31%	Transport	0.18%	AAA (bra) Fitch
LEST - Linhas do Sertão Transmissora S.A.	LELE11	9/23/2019	3/15/2034	ICVM 476	14	7.89	27.0	IPCA + 5,36%	Energy	2.25%	A (bra) Fitch
Arcoverde Transmissão Energia S.A.	ARCV12	9/27/2019	7/15/2042	ICVM 476	23	7.97	52.0	IPCA + 5,02%	Energy	1.60%	AA+ (bra) Fitch
SE Vineyards Transmissão Energia S.A	VNYD12	9/27/2019	7/15/2042	ICVM 476	23	9.27	250.0	IPCA + 5,24%	Energy	1.80%	AAA (bra) Fitch
Transmissora Energia Campinas-Itatiba S.A	TEGT11	10/3/2019	9/18/2039	ICVM 476	20	7.13	70.0	IPCA + 9,00%	Energy	5.66%	AAA (bra) Fitch
	TEGT21		3/18/2040		21	7.13	20.0	IPCA + 9,00%		5.66%	
Petróleo Brasileiro S/A - Petrosbras	PETR17	10/9/2019	6/15/2029	ICVM 400	10	8.47	1,529.3	IPCA + 3,60%	Energy	0.39%	AAA (bra) Fitch
	PETR27		9/15/2034		15	11.50	1,478.7	IPCA + 3,90%		0.46%	
Pirapora II Energias Renováveis S.A	PRPO12	10/18/2019	12/15/2031	ICVM 476	12	7.00	118.0	IPCA + 4,22%	Energy	1.20%	AAA (bra) Fitch
Ipiranga Agroindustrial	IPIA11	10/23/2019	10/15/2026	ICVM 476	7	5.08	200.0	IPCA + 2,61%	Energy	0.44%	AAA (bra) Fitch
Transmissora Aliança Energia Elétrica S.A	TAEE17	10/25/2019	9/15/2044	ICVM 400	25	13.60	508.0	IPCA + 4,50%	Energy	1.01%	AAA (bra) Fitch
Enel Green Power Volta Grande S.A.	EGVG11	11/5/2019	10/15/2029	ICVM 476	10	4.80	519.0	IPCA + 3,70%	Transport	0.83%	AAA (bra) Fitch
	EGVG21				10	4.48	281.0	IPCA + 3,70%		0.83%	
Rumo S.A	RUMOA3	11/6/2019	10/15/2029	ICVM 400	10	7.68	906.9	IPCA + 3,90%	Energy	1.10%	AAA (bra) Fitch
	RUMOB3				10	7.47	222.3	IPCA + 4,00%		1.10%	
UHE São Simão Energia S.A.	UHSM11	11/14/2019	11/15/2029	ICVM 476	10	7.31	775.0	IPCA + 3,54%	Energy	0.76%	brAAA (S&P)

## Continuation – 2019

Issuer	Ticker	Distribution Date	Due Date	Offer type	Maturity (years)	Duration <sup>1</sup> (years)	Value (R\$ million)	Yield <sup>2</sup>	Sector	Spread Over NTN-B	Rating (local)
Cia Melhoramentos Norte Paraná	CMNP13	11/14/2019	11/15/2025	ICVM 476	6	4.69	112.0	IPCA + 3,13%	Transport	0.95%	
	CMNP23				6	4.68	213.0	IPCA + 3,13%		0.95%	
Terminal Químico de Aratu S.A. Tequimar	TEQU11	11/19/2019	11/19/2024	ICVM 476	5	4.30	90.0	IPCA + 6,47%	Transport	0.19%	
Delta Sucrenergia S.A.	SRGI11	11/19/2019	11/15/2025	ICVM 476	6	4.65	250.0	IPCA + 3,17%	Energy	0.88%	
Concessionário Ponte Rio-Niterói S.A - Ecoponte	ECPN11	11/19/2019	10/15/2034	ICVM 476	15	8.94	230.0	IPCA + 4,40%	Transport	1.50%	AA+ (bra) Fitch
Autopista Regis Bittencourt S.A	APRB18	11/19/2019	6/15/2031	ICVM 476	12	8.30	1,000.0	IPCA + 4,50%	Transport	1.55%	brAAA (S&P)
Copel Distribuição S.A.	CPLD15	11/27/2019	11/15/2027	ICVM 476	8	6.19	500.0	IPCA + 4,20%	Energy	1.10%	AA (bra) Fitch
Ourolandia do Norte Transmissora S.A.	OURI11	11/27/2019	11/15/2039	ICVM 476	20	7.10	30.0	IPCA + 6,15%	Energy		
Raizen Energia S/A	RESA14	11/28/2019	11/15/2029	ICVM 476	10	0.00	900.0	IPCA + 3,54%	Energy	0.70%	
Convicon Containeres Vila do Conde S.A.	CVCN11	12/3/2019	1/15/2031	ICVM 476	11	5.27	60.0	IPCA + 4,20%	Transport	0.45%	brAAA (S&P)
Central Fotovoltaica São Pedro II S.A.	FTSP11	12/3/2019	12/15/2034	ICVM 400	15	6.80	113.2	IPCA + 4,40%	Energia	1.00%	AAA (bra) Fitch
	CBAN12				15	9.70	859.5	IPCA + 5,00%		2.02%	
Concessionária Rota das Bandeiras S.A.	CBAN32	12/3/2019	7/15/2034	ICVM 400	15	9.65	240.8	IPCA + 5,20%	Transport	2.02%	AAA (bra) Fitch
	CBAN52				15	9.65	199.8	IPCA + 5,20%		2.02%	
	CBAN72				15	9.65	167.5	IPCA + 5,20%		2.02%	
Central Fotovoltaica São Pedro IV S.A.	SPIV11	12/11/2019	12/15/2034	ICVM 476	15	6.80	95.5	IPCA + 4,40%	Energy	1.00%	AAA (bra) Fitch
CTEEP-CIA Energia Paulista S/A	CTEE18	12/20/2019	12/15/2029	ICVM 400	10	7.70	409.3	IPCA + 3,50%	Energy	0.67%	AAA (bra) Fitch
Eneva S.A.	ENEV13	12/20/2019	12/15/2027	ICVM 476	8	6.02	650.0	IPCA + 4,23%	Energy	1.20%	brAAA (S&P)
Janauba Transmissora de Energia S.A.	JTEE12	12/20/2019	12/15/2044	ICVM 476	25	12.03	575.0	IPCA + 4,83%	Energy	1.55%	AAA (bra) Fitch
Empresa Sudeste Transmissão de Energia S.A	EPSD11	12/26/2019	12/15/2044	ICVM 476	25	12.97	415.0	IPCA + 4,50%	Energy		
Rincão São Miguel Energética S.A.	RSME11	12/26/2019	6/15/2037	ICVM 476	18	8.80	48.0	IPCA + 5,01%	Energy	1.60%	
Rincão dos Albinos Energética S.A	RALB11	12/26/2019	6/15/2037	ICVM 476	18	8.80	78.0	IPCA + 5,01%	Energy	1.60%	
TSM - Transmissora Serra da Mantiqueira S.A.	TSMM11	12/26/2019	12/15/2044	ICVM 476	25	13.00	530.0	IPCA + 4,50%	Energy		

## Continuation – 2019

Issuer	Ticker	Distribution Date	Due Date	Offer type	Maturity (years)	Duration <sup>1</sup> (years)	Value (R\$ million)	Yield <sup>2</sup>	Sector	Spread Over NTN-B	Rating (local)
Interligação Elétrica Ivai S.A	IVAI11	12/27/2019	12/15/2043	ICVM 476	24	11.22	1,650.0	IPCA + 4,99%	Energy	1.60%	
Quevedos Energética S.A.	QUEV11	12/27/2019	12/15/2037	ICVM 476	18	8.66	90.0	IPCA + 4,53%	Energy	1.16%	
Salto do Guassupi Energética S.A.	GUAP11	12/30/2019	12/15/2037	ICVM 476	18	8.70	50.0	IPCA + 4,53%	Energy	1.20%	
<b>Total.....</b>							<b>33,759.3</b>				

Source: Anbima, Rating reports and Debentures Agreements  
Elaborated by SPE/ME

**Note:**

(1) In this presentation we consider duration (Macaulay duration) as a measure of the sensitivity of the price (value of principal) of a infrastructure Bond expressed as a number of years. This indicator involving present value, yield, coupon and final maturity.

(2) Consumer Price Index - CPI (IPCA)

## Infrastructure Bonds: Infrastructure Investment Projects - 2018

Issuer	Ticker	Distribution Date	Due Date	Offer type	Maturity (years)	Duration <sup>1</sup> (years)	Value (R\$ million)	Yield <sup>2</sup>	Sector	Spread Over NTN-B	Rating (local)
Cantareira Transmissora Energia S/A	CTRR11	1/9/2018	8/15/2032	ICVM 476	15	6.19	100.00	IPCA + 6,91%	Energy	1.65%	AA+ (bra) Fitch
Cia de Saneamento de Minas Gerais - Copasa	CSMGA1	2/8/2018	1/15/2024	ICVM 400	6	3.94	187.39	IPCA + 5,06%	Water and Sewerage	0.30%	AA (bra) Fitch
	CSMGA2		1/15/2026		8	4.82	80.61	IPCA + 5,27%		0.50%	
Concessionária de Rodovias Minas Gerais Goiás S/A	RMGG11	3/2/2018	12/15/2029	ICVM 476	12	6.57	90.00	IPCA + 9,00%	Transport	3.86%	
Entrevias Concessionária de Rodovias S.A.	ENTV12	3/13/2018	12/15/2030	ICVM 476	13	7.11	1,000.00	IPCA + 7,75%	Transport	2.89%	AA (bra) Fitch
Concessionária da Linha 4 Metrô de SP S.A.	CNLM25	3/29/2018	4/15/2028	ICVM 476	10	5.42	500.00	IPCA + 7,07%	Transport	2.53%	AA (bra) Fitch
CELSE - Centrais Elétricas de Sergipe S.A.	CESE11	4/4/2018	4/15/2032	ICVM 476	14	5.94	3,337.00	Pré 9,85%	Energy	N/D	AA (bra) Fitch
Algar Telecom S/A	ALGA27	4/18/2018	3/15/2025	ICVM 476	7	5.26	76.48	IPCA + 5,34%	Telecoms	0.85%	brAA- (S&P)
CTEEP-CIA Energia Paulista S/A	CTEE17	4/23/2018	4/15/2025	ICVM 400	7	6.05	621.00	IPCA + 4,70%	Energy	0.06%	AAA (bra) Fitch
CEA II Centrais Elétricas Eólicas Assurua II SPE S.A.	CEAD11	5/16/2018	6/15/2030	ICVM 476	12	6.10	158.00	IPCA + 6,66%	Energy	1.90%	Aa2 (br) Moody's
EDP Transmissão S.A.	EDPT11	5/30/2018	5/15/2033	ICVM 476	15	6.80	115.00	IPCA + 7,03%	Energy	1.70%	Aa2 (br) Moody's
Ultrafertil S/A	ULFT12	6/4/2018	5/15/2025	ICVM 476	7	2.19	175.00	IPCA + 5,33%	Transport	0.30%	AA+ (bra) Fitch
AES Tietê S/A	TIET18	6/7/2018	5/15/2033	ICVM 476	15	6.50	200.00	IPCA + 6,02%	Energy	0.90%	Aa1 (br) Moody's
COELCE - Estado do Ceará	CEAR26	6/15/2018	6/15/2025	ICVM 476	7	5.80	270.00	IPCA + 6,20%	Energy	0.75%	AAA (bra) Fitch
Rio Paraná S.A.	RIPR21	6/15/2018	6/15/2025	ICVM 476	7	5.80	240.00	IPCA + 6,15%	Energy	0.75%	Ba1 (br) Moody's
Fospar S.A - Fertilizantes	FOSP11	6/25/2018	5/15/2026	ICVM 476	8	7.00	151.23	IPCA + 6,53%	Transport	0.50%	
Cia Energética Jaguará S.A.	ENJG21	6/28/2018	6/15/2027	ICVM 476	9	5.50	634.00	IPCA + 6,50%	Energy	0.75%	AAA (bra) Fitch
Cia Energética Miranda S.A.	ENMI21	6/28/2018	6/15/2027	ICVM 476	9	5.70	386.00	IPCA + 6,50%	Energy	0.75%	AAA (bra) Fitch
Elektro Redes S/A	ELEK37	6/28/2018	5/15/2025	ICVM 476	7	4.50	300.00	IPCA + 5,95%	Energy	0.50%	AA- (bra) Fitch
Centrais Eólicas Assurá I S.A.	SSRU11	6/29/2018	11/28/2030	ICVM 476	13	6.58	35.00	IPCA + 7,81%	Energy	1.90%	Ba3 (br) Moody's
Cia Energética Sinop S.A.	CSNP12	7/3/2018	6/15/2032	ICVM 476	14	7.30	236.00	IPCA + 7,94%	Energy	2.10%	AA (bra) Fitch
Transmissora Aliança de Energia S/A	TAES15	7/17/2018	7/15/2025	ICVM 400	7	6.50	525.77	IPCA + 5,95%	Energy	0.30%	AAA (bra) Fitch
Verde 08 Energia S.A.	VDEN12	7/19/2018	7/15/2025	ICVM 476	7	5.80	140.00	IPCA + 5,96%	Energy	0.25%	AAA (bra) Fitch

## Continuation – 2018

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Transmissão José Maria de Melo de Eletricidade S.A.	TJMM11	7/23/2018	3/15/2036	ICVM 476	18	8.20	395.00	IPCA + 8,28%	Energy	2.50%	
CIA Energética do RN - Cosern	CSRN18	7/23/2018	7/15/2023	ICVM 476	5	4.50	130.00	IPCA + 5,98%	Energy	0.50%	AAA (bra) Fitch
Engie Brasil Energia S.A.	EGIE17	7/25/2018	7/15/2025	ICVM 400	7	5.60	515.35	IPCA + 5,66%	Energy	0.92%	AAA (bra) Fitch
	EGIE27		7/15/2028		10	8.20	231.26	IPCA + 5,90%	Energy	0.28%	
Central Hidrelétrica Sucuri S.A.	CHSU11	7/27/2018	11/30/2027	ICVM 476	9	4.53	2.50	IPCA + 8,42%	Energy	0.73%	
Central Hidrelétrica Sucuri S.A.	CHSU21	7/27/2018	12/29/2027	ICVM 476	9	4.53	2.26	IPCA + 8,42%	Energy	0.73%	
Central Hidrelétrica Palmeira do Tocantins S.A.	CHPT11	7/30/2018	11/30/2027	ICVM 476	9	4.53	2.86	IPCA + 8,42%	Energy	0.73%	AA- (bra) Fitch
Central Hidrelétrica Palmeira do Tocantins S.A.	CHPT21	7/30/2018	12/29/2027	ICVM 476	9	4.53	2.59	IPCA + 8,42%	Energy	0.73%	AA- (bra) Fitch
Central Hidrelétrica Palmeira do Tocantins S.A.	CHPT31	7/30/2018	1/28/2028	ICVM 476	10	4.53	2.58	IPCA + 8,42%	Energy	0.73%	AA- (bra) Fitch
Central Hidrelétrica Palmeira do Tocantins S.A.	CHPT41	7/30/2018	3/3/2028	ICVM 476	10	4.53	2.59	IPCA + 8,42%	Energy	0.73%	AA- (bra) Fitch
Central Hidrelétrica Palmeira do Tocantins S.A.	CHPT51	7/30/2018	3/29/2028	ICVM 476	10	4.53	2.56	IPCA + 8,42%	Energy	0.73%	AA- (bra) Fitch
Central Hidrelétrica Palmeira do Tocantins S.A.	CHPT61	7/30/2018	4/28/2028	ICVM 476	10	4.53	2.84	IPCA + 8,42%	Energy	0.73%	AA- (bra) Fitch
Central Hidrelétrica Sucuri S.A.	CHSU31	7/30/2018	1/28/2028	ICVM 476	10	4.53	2.26	IPCA + 8,42%	Energy	0.73%	
Central Hidrelétrica Sucuri S.A.	CHSU41	7/30/2018	3/3/2028	ICVM 476	10	4.53	2.26	IPCA + 8,42%	Energy	0.73%	
Central Hidrelétrica Sucuri S.A.	CHSU51	7/30/2018	3/29/2028	ICVM 476	10	4.53	2.24	IPCA + 8,42%	Energy	0.73%	
Central Hidrelétrica Sucuri S.A.	CHSU61	7/30/2018	4/28/2028	ICVM 476	10	4.53	2.49	IPCA + 8,42%	Energy	0.73%	
Santa Vitória do Palmar Energias Renováveis S.A.	SAVI13	7/30/2018	9/15/2031	ICVM 476	13	5.60	105.00	IPCA + 5,95%	Energy	0.60%	AAA (bra) Fitch
Serras Holding S.A.	SRRH11	8/3/2018	7/31/2032	ICVM 476	14	6.80	40.00	IPCA + 7,64%	Energy	2.02%	AAA (bra) Fitch
Argo Transmissão de Energia S.A.	TRGO11	8/24/2018	12/15/2031	ICVM 476	13	7.60	454.50	IPCA + 7,02%	Energy	1.40%	AA+ (bra) Fitch
CIA Energética de Pernambuco - Celpe	CEPE19	8/29/2018	7/15/2025	ICVM 476	7	4.91	600.00	IPCA + 6,04%	Energy	0.50%	AAA (bra) Fitch

## Continuation – 2018

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EDP SP Distribuição de Energia S.A.	EBEN19	8/31/2018	8/15/2025	ICVM 476	7	5.11	260.00	IPCA + 5,91%	Energy	0.60%	AAA (bra) Fitch
EDP ES Distribuição de Energia S.A.	ESCE17	8/31/2018	7/15/2025	ICVM 476	7	5.11	190.00	IPCA + 5,91%	Energy	0.60%	AAA (bra) Fitch
Cia Eletrc. Est. Da Bahia - Coelba	CEEBA1	9/3/2018	8/15/2025	ICVM 476	7	5.10	800.00	IPCA + 6,22%	Energy	0.50%	AA- (bra) Fitch
CIA Piratininga de Força e Luz	CPFPA0	9/5/2018	8/15/2025	ICVM 476	7	5.50	197.00	IPCA + 5,80%	Energy	0.20%	AAA (bra) Fitch
RGE Sul Distribuidora de Energia S/A	AESL17	9/6/2018	8/15/2025	ICVM 476	7	5.50	219.60	IPCA + 5,80%	Energy	(0.02)%	AAA (bra) Fitch
Empresa de Energia São Manoel S/A	ESAM14	9/10/2018	6/15/2033	ICVM 476	15	5.80	340.00	IPCA + 7,31%	Energy	1.60%	AA (bra) Fitch
Copacabana Geração de Energia e Participações S.A.	CGEP12	9/13/2018	4/15/2033	ICVM 476	15	6.32	127.78	IPCA + 8,47%	Energy	2.60%	AAA (bra) Fitch
ETC - Emp. Transmissora Capixaba S.A.	CPXB22	9/19/2018	9/15/2025	ICVM 476	7	5.50	85.30	IPCA + 6,17%	Energy	0.30%	AAA (bra) Fitch
ETAP - Empr. Transmissora Agreste Potiguar S.A.	ETAP22	9/19/2018	9/15/2025	ICVM 476	7	5.50	114.70	IPCA + 6,17%	Energy	0.30%	AAA (bra) Fitch
Guaraciaba Transmissora de Energia TP Sul S.A	TPSU12	10/3/2018	12/15/2030	ICVM 476	12	6.10	118.00	IPCA + 7,39%	Energy	1.50%	AA (bra) Fitch
Sobral I Solar Energia SPE S.A	SISE11	10/4/2018	12/15/2033	ICVM 476	15	5.10	135.00	IPCA + 7,89%	Energy	1.95%	AAA (bra) Fitch
Copel Geração e Transmissão S.A.	CPGT15	10/11/2018	9/15/2025	ICVM 476	7	4.25	290.00	IPCA + 7,65%	Energy	1.85%	AA- (bra) Fitch
Pirapora Solar Holding S.A	PRAS11	10/15/2018	8/15/2034	ICVM 476	16	7.60	220.00	IPCA + 5,77%	Energy	0.00%	AAA (bra) Fitch
TCC - Transmissora Caminho do Café S.A.	TRCC11	10/17/2018	9/15/2028	ICVM 476	10	7.12	680.00	IPCA + 6,53%	Energy	0.70%	AAA (bra) Fitch
TPE - Transmissora Paraíso de Energia S.A.	TPEN11	10/17/2018	9/15/2028	ICVM 476	10	7.12	1,070.00	IPCA + 6,53%	Energy	0.70%	AAA (bra) Fitch
Energisa Sul-Sudeste S.A	EDVP14	10/19/2018	9/15/2025	ICVM 476	7	4.90	70.00	IPCA + 5,08%	Energy	0.20%	AAA (bra) Fitch
Energisa Sergipe S.A.	ENSE16	10/19/2018	9/15/2025	ICVM 476	7	4.90	65.00	IPCA + 5,08%	Energy	0.20%	AAA (bra) Fitch
Energisa Mato Grosso do Sul S.A.	ESULA1	10/19/2018	9/15/2025	ICVM 476	7	4.90	155.00	IPCA + 5,08%	Energy	0.20%	AAA (bra) Fitch
Energisa Mato Grosso S.A.	CEMT19	10/19/2018	9/15/2025	ICVM 476	7	4.90	385.00	IPCA + 5,08%	Energy	0.20%	AAA (bra) Fitch
Energisa Tocantins S.A.	CTNS14	10/19/2018	9/15/2025	ICVM 476	7	4.90	240.00	IPCA + 5,09%	Energy	0.20%	AAA (bra) Fitch
Energisa Minas Gerais S.A.	FLCLA0	10/19/2018	9/15/2025	ICVM 476	7	4.90	50.00	IPCA + 5,09%	Energy	0.20%	AAA (bra) Fitch
Energisa Paraíba S.A.	SAEL15	10/19/2018	9/15/2025	ICVM 476	7	4.90	135.00	IPCA + 5,08%	Energy	0.20%	AAA (bra) Fitch

## Continuation – 2018

Issuer	Ticker	Distribution Date	Due Date	Offer type	Maturity (years)	Duration <sup>1</sup> (years)	Value (R\$ million)	Yield <sup>2</sup>	Sector	Spread Over NTN-B	Rating (local)
Sertão I Solar Energia SPE S.A.	SRTI11	10/23/2018	12/12/2032	ICVM 476	14	5.60	130.00	IPCA + 7,09%	Energy	1.20%	AAA (bra) Fitch
LIGHT Serviços de Eletricidade S/A	LIGHA5	10/24/2018	10/15/2025	ICVM 476	7	4.71	540.00	IPCA + 6,83%	Energy	1.10%	AA+ (bra) Fitch
EDP Transmissão Aliança SC S.A.	EDPA11	10/25/2018	10/15/2028	ICVM 476	10	8.27	1,200.00	IPCA + 6,72%	Energy	0.01%	AA (bra) Fitch
Integração Transmissora Energia S.A.	ITGT11	11/1/2018	10/15/2025	ICVM 476	7	5.21	100.00	IPCA + 5,42%	Energy	0.72%	brAAA (S&P)
Parnaíba I Geração Energia S.A.	PNBI11	11/26/2018	11/15/2025	ICVM 476	7	4.10	315.00	IPCA + 7,22%	Energy	2.50%	AAA (bra) Fitch
Subestação Água Azul SPE S.A.	SAAS11	12/26/2018	12/15/2029	ICVM 476	11	5.80	35.00	IPCA + 6,40%	Energy	1.50%	
EDTE - Diamantina de Transmissão de Energia S.A.	EDTE12	12/26/2018	12/15/2028	ICVM 476	10	8.44	315.00	IPCA + 5,29%	Energy	0.50%	AAA (bra) Fitch
Energisa Transmissão Energia S.A.	ETEN11	12/27/2018	12/15/2025	ICVM 476	7	6.06	75.50	IPCA + 4,92%	Energy	0.30%	AAA (bra) Fitch
Energisa Transmissão Energia S.A.	ETEN21	12/27/2018	12/15/2025	ICVM 476	7	7.38	51.46	IPCA + 5,14%	Energy	0.45%	AAA (bra) Fitch
Energisa Transmissão Energia S.A.	ETEN31	12/27/2018	12/15/2025	ICVM 476	7	6.11	123.04	IPCA + 4,98%	Energy	0.35%	AAA (bra) Fitch
ETB - Empresa de Transmissão Baiana S.A.	ETBA12	12/27/2018	2/15/2029	ICVM 476	10	8.80	715.00	IPCA + 5,34%	Energy	0.60%	AAA (bra) Fitch
<b>Total.....</b>							<b>21,607.0</b>				

Source: Anbima, Rating reports and Debentures Agreements  
Elaborated by SPE/ME

**Note:**

(1) In this presentation we consider duration (Macaulay duration) as a measure of the sensitivity of the price (value of principal) of a infrastructure Bond expressed as a number of years. This indicator involving present value, yield, coupon and final maturity.

(2) Consumer Prince Index - CPI (IPCA)



## Infrastructure Bonds: Infrastructure Investment Projects - 2017

Issuer	Ticker	Distribution Date	Due Date	Offer type	Maturity (years)	Duration <sup>1</sup> (years)	Value (R\$ million)	Yield <sup>2</sup>	Sector	Spread Over NTN-B	Rating (local)
TSLE-Sul Litorânea Energia S/A	TSLE11	1/12/2017	12/15/2030	ICVM 476	14	7.10	150.0	IPCA + 7,57%	Energy	1.40%	AA+ (bra) Fitch
Baraúnas II Energética S/A	BAUR11	1/16/2017	1/15/2027	ICVM 476	10	4.11	8.8	IPCA + 7,96%	Energy	2.00%	
Banda de Couro Energética S/A	BNDC11	1/16/2017	12/15/2030	ICVM 476	14	4.11	14.5	IPCA + 7,96%	Energy	2.00%	
Rio Grande Energia S/A	RIGE18	3/8/2017	2/15/2024	ICVM 476	7	5.54	130.0	IPCA + 5,35%	Energy	0.05%	AA (bra) Fitch
CIA Piratininga de Força e Luz	CPFP18	3/16/2017	2/15/2024	ICVM 476	7	5.55	60.0	IPCA + 5,29%	Energy	(0.10)%	AA (bra) Fitch
Paranaíba Energia S/A	PRTE12	3/17/2017	3/15/2028	ICVM 476	11	5.26	120.0	IPCA + 6,90%	Energy	1.50%	AA+ (bra) Fitch
Extremoz Transmissora Nordeste - ETN S/A	EXTZ11	3/22/2017	1/15/2029	ICVM 476	12	7.58	168.0	IPCA + 7,03%	Energy	1.80%	AA+ (bra) Fitch
CTEEP-CIA Energia Paulista S/A	CTEE15	3/30/2017	2/15/2024	ICVM 400	7	5.90	300.0	IPCA + 5,04%	Energy	(0.24)%	AAA (bra) Fitch
Algar Telecom S/A	ALGA26	4/19/2017	3/15/2024	ICVM 400	7	5.68	282.0	IPCA + 6,87%	Telecoms	1.50%	AA- (bra) Fitch
Ventos de São Clemente Holding S/A	VSCL11	4/24/2017	10/15/2030	ICVM 476	14	6.40	180.0	IPCA + 8,00%	Energy	2.56%	AA (bra) Fitch
Potami Energia S/A	PTMI11	5/11/2017	12/15/2026	ICVM 476	10	4.33	42.4	IPCA + 7,38%	Energy	2.00%	AA (bra) Fitch
CIA Energética de Pernambuco - Celpe	CEPE27	5/15/2017	1/15/2022	ICVM 476	5	4.31	90.0	IPCA + 6,18%	Energy	0.80%	AA- (bra) Fitch
Ventos de São Jorge Holding S/A	VSJH11	5/18/2017	7/15/2028	ICVM 476	11	6.84	45.0	IPCA + 9,00%	Energy	2.70%	AA (bra) Fitch
Itarema Geração Energia S/A	ITGE13	6/16/2017	12/15/2028	ICVM 476	12	5.98	111.8	IPCA + 7,81%	Energy	2.10%	AA (bra) Fitch
Ventos de São Vicente Energias Renováveis S/A	VTSS11	7/7/2017	6/15/2024	ICVM 476	7	5.55	100.0	IPCA + 5,47%	Energy	(0.20)%	AAA (bra) Fitch
CPFL Energias Renováveis S/A	ERSA17	7/17/2017	7/15/2022	ICVM 476	5	4.40	250.0	IPCA + 5,62%	Energy	0.00%	AA (bra) Fitch
Energisa S/A	ENGI18	7/19/2017	6/15/2022	ICVM 400	5	4.44	197.6	IPCA + 5,60%	Energy	0.00%	AA+ (bra) Fitch
	ENGI28	7/19/2017	6/15/2024	#REF!	7	5.86	177.4	IPCA + 5,66%		0.10%	
Concessionária do Sistema Anhanguera-Bandeirantes S/A	ANHB18	7/28/2017	6/15/2024	ICVM 476	5	4.41	716.5	IPCA + 5,47%	Transport	0.20%	Aa1 (br) Moody's
Copel Telecomunicações S/A	CTEL12	8/8/2017	7/15/2022	ICVM 476	5	4.41	220.0	IPCA + 5,43%	Telecoms	0.70%	AA+ (bra) Fitch
Petróleo Brasileiro S/A - Petrobras	PETR15	8/25/2017	8/15/2022	ICVM 476	5	4.55	301.0	IPCA + 4,72%	Energy	0.05%	AA+ (bra) Fitch
	PETR25	8/25/2017	8/15/2024	ICVM 476	7	6.02	1,089.9	IPCA + 5,21%		0.30%	
Complexo Morrinhos Energias Renováveis S/A	CXER12	8/31/2017	12/15/2027	ICVM 476	11	6.19	102.50	IPCA + 7,06%	Energy	1.85%	AA+ (bra) Fitch

## Continuation – 2017

Issuer	Ticker	Distribution Date	Due Date	Offer type	Maturity (years)	Duration <sup>1</sup> (years)	Value (R\$ million)	Yield <sup>2</sup>	Sector	Spread Over NTN-B	Rating (local)
Nascentes do Xingu S/A	NASX13	8/31/2017	8/15/2024	ICVM 476	7	5.46	155.00	IPCA + 6,17%	Water and Sewerage	1.25%	AA (bra) Fitch
Salus Infraestrutura Portuária S/A	SAIP12	9/13/2017	10/15/2024	ICVM 400	7	4.30	31.17	IPCA + 5,75%	Transport	1.00%	AA+ (bra) Fitch
Lagoa 1 Energia Renovável S/A	LGEN11	9/29/2017	3/15/2029	ICVM 476	12	7.25	46.21	IPCA + 7,33%	Energy	0.03	AAA (bra) Fitch
Transmissora Aliança de Energia S/A	TAES14	10/9/2017	9/15/2024	ICVM 400	7	5.20	255.00	IPCA + 4,41%	Energy	(0.20)%	AAA (bra) Fitch
Rodonorte - Conces. de Rodovias Integradas S/A	RDNT26	10/19/2017	11/15/2021	ICVM 476	4	4.00	170.00	IPCA + 4,50%	Transport	0.10%	brAA- (S&P)
Cia. Paulista de Força e Luz	PALF18	10/24/2017	9/15/2022	ICVM 400	5	4.57	213.80	IPCA + 4,42%	Energy	0.00%	AAA (bra) Fitch
	PALF28				7	5.89	355.72	IPCA + 4,66%		0.00%	
	PALF38				10	7.43	130.48	IPCA + 5,05%		0.26%	
CIA Energética do RN - Cosern	CSRN17	10/24/2017	10/15/2022	ICVM 400	5	4.45	271.44	IPCA + 4,64%	Energy	0.25%	brAA- (S&P)
	CSRN27				7	5.95	98.56	IPCA + 4,91%		0.35%	
Energisa S/A	ENGI19	10/30/2017	10/15/2022	ICVM 400	5	4.57	61.81	IPCA + 4,49%	Energy	0.10%	AA+ (bra) Fitch
	ENGI29				7	6.10	11.52	IPCA + 4,71%		0.20%	
	ENGI39				10	8.05	21.44	IPCA + 5,11%		0.35%	
Arteris S/A	ARTR35	10/31/2017	10/15/2024	ICVM 400	7	5.67	161.54	IPCA + 5,09%	Transport	0.50%	AA- (bra) Fitch
CIA de Gás de São Paulo - Comgás	GASP16	10/31/2017	10/15/2024	ICVM 476	7	6.16	400.00	IPCA + 4,33%	Energy	0.20%	AAA (bra) Fitch
LIGHT Serviços de Eletricidade S/A	LIGHA3	11/1/2017	10/15/2022	ICVM 400	5	4.34	458.67	IPCA + 7,44%	Energy	2.90%	A- (bra) Fitch
Ventos de Santo Estevão Holding S/A	VSEH11	11/7/2017	7/15/2032	ICVM 476	15	7.57	160.00	IPCA + 6,98%	Energy	2.00%	AA+ (bra) Fitch
Omega Energia e Implantação 2 S/A	OMNG12	11/24/2017	12/15/2029	ICVM 476	12	5.83	220.00	IPCA + 7,11%	Energy	2.00%	AA+ (bra) Fitch
Eólica Serra das Vacas Holding II S/A	EVOL11	12/11/2017	6/15/2031	ICVM 476	14	6.77	48.00	IPCA + 7,31%	Energy	2.20%	AA (bra) Fitch
Equatorial Energia S/A	EQTL22	12/11/2017	11/15/2024	ICVM 476	7	6.50	104.50	IPCA + 5,77%	Energy	0.75%	A+ (bra) Fitch
Belo Monte Transmissora Energia SPE S/A	BLMN12	12/11/2017	12/15/2031	ICVM 476	14	6.84	580.00	IPCA + 7,14%	Energy	2.10%	AA+ (bra) Fitch
Esperanza Transmissora de Energia S/A	SPRZ11	12/12/2017	9/15/2030	ICVM 476	13	6.13	87.00	IPCA + 6,80%	Energy	1.75%	AA+ (bra) Fitch

## Continuation – 2017

Issuer	Ticker	Distribution Date	Due Date	Offer type	Maturity (years)	Duration <sup>1</sup> (years)	Value (R\$ million)	Yield <sup>2</sup>	Sector	Spread Over NTN-B	Rating (local)
Odoya Transmissora de Energia S/A	ODYA11	12/12/2017	9/15/2031	ICVM 476	14	6.40	74.0	IPCA + 6,80%	Energy	1.75%	AA+ (bra) Fitch
Cia Energética do Ceará-Coelce	CEAR25	12/26/2017	12/15/2024	ICVM 476	7	5.13	150.0	IPCA + 6,00%	Energy	0.80%	AAA (bra) Fitch
Enel Green Power Maniçoba Eólica	EGME11	12/28/2017	12/15/2028	ICVM 476	11	5.22	10.8	IPCA + 7,62%	Energy	2.60%	AA- (bra) Fitch
Enel Green Power Damascena Eólica	ENDE11	12/28/2017	6/15/2029	ICVM 476	12	5.28	11.3	IPCA + 7,62%	Energy	2.60%	AA (bra) Fitch
<b>Total.....</b>							<b>9,145.2</b>				

Source: Anbima, Rating reports and Debentures Agreements

Elaborated by SPE/ME

**Note:**

(1) In this presentation we consider duration (Macaulay duration) as a measure of the sensitivity of the price (value of principal) of a infrastructure Bond expressed as a number of years. This indicator involving present value, yield, coupon and final maturity.

(2) Consumer Price Index - CPI (IPCA)

## Infrastructure Bonds: Infrastructure Investment Projects - 2016

Issuer	Ticker	Distribution Date	Due Date	Offer type	Maturity (years)	Duration <sup>1</sup> (years)	Value (R\$ million)	Yield <sup>2</sup>	Sector	Spread Over NTN-B	Rating (local)
Voltaia S. M. do Gostoso Participações S/A	VTLA11	3/23/2016	12/15/2028	ICVM 476	13	5.50	57.00	IPCA + 8,19%	Energy	2.00%	A+ (bra) Fitch
EDP Energias do Brasil S/A	ENBR15	4/7/2016	4/15/2022	ICVM 476	6	4.50	250.00	IPCA + 8,34%	Energy	1.70%	A (bra) Fitch
Algar Telecom S/A	ALGA15	6/9/2016	5/15/2022	ICVM 476	6	4.55	210.00	IPCA + 7,73%	Telecoms	1.40%	AA- (bra) Fitch
CTEEP-CIA Energia Paulista S/A	CTEE14	7/15/2016	7/15/2021	ICVM 476	5	4.40	148.27	IPCA + 6,04%	Energy	(0.10)%	AA+ (bra) Fitch
Engie Brasil Energia S/A	TBLE16	7/27/2016	7/15/2023	ICVM 476	7	5.00	246.60	IPCA + 6,26%	Energy	0.08%	AAA (bra) Fitch
	TBLE26	7/27/2016	7/15/2026		10	5.00	353.40	IPCA + 6,25%		0.08%	
VLI Operações Portuárias S/A	VLIO11	8/25/2016	8/15/2021	ICVM 476	5	4.40	175.00	IPCA + 6,05%	Transport	0.00%	AA+ (bra) Fitch
Matrincha Transmissora de Energia (TP Norte) S/A.	TPNO12	9/9/2016	6/15/2029	ICVM 476	13	7.60	180.00	IPCA + 7,58%	Energy	1.50%	AA+ (bra) Fitch
Coelba - Estado da Bahia	CEEB29	10/18/2016	10/15/2021	ICVM 476	5	4.20	100.00	IPCA + 6,75%	Energy	0.40%	AA- (bra) Fitch
CPFL - Geração de Energia S/A	CPGE19	10/20/2016	10/17/2021	ICVM 476	5	4.48	50.00	IPCA + 5,48%	Energy	(0.40)%	AAA (bra) Fitch
Companhia Energética do Maranhão - Cemar	CEMA17	11/1/2016	10/15/2021	ICVM 400	5	4.48	155.00	IPCA + 5,48%	Energy	(0.35)%	AA+ (bra) Fitch
	CEMA27	11/1/2016	10/15/2023		7	5.96	115.00	IPCA + 5,54%		(0.25)%	
TCP-Terminal de Contêineres de Paranaguá S/A	TCPA31	11/7/2016	10/15/2022	ICVM 400	6	4.60	428.05	IPCA + 7,82%	Transport	0.02	AA- (bra) Fitch
Autopista Fernão Dias S/A	APFD14	11/14/2016	9/15/2026	ICVM 476	10	7.16	65.00	IPCA + 7,53%	Transport	1.70%	brAA- (S&P)
Rodonorte - Conces. de Rodovias Integradas S/A	RDNT15	11/16/2016	11/15/2021	ICVM 476	5	4.37	100.00	IPCA + 6,06%	Transport	0.00%	brAA- (S&P)
Conces. de Rodovias do Oeste de São Paulo - Viaoeste	VOES16	12/5/2016	11/15/2021	ICVM 476	5	4.33	270.00	IPCA + 6,3%	Transport	0.10%	Aa1 (br) Moody's
Eólica Serra das Vacas Holding S/A	EOVC11	12/13/2016	6/15/2028	ICVM 476	12	5.32	23.00	IPCA + 8,37%	Energy	2.30%	AA- (bra) Fitch
	EOVC21	12/13/2016	6/15/2030		14	7.74	45.00	IPCA + 8,58%		2.50%	
AES Tietê S/A	TIET15	12/14/2016	12/15/2023	ICVM 476	7	5.80	180.00	IPCA + 6,54%	Energy	0.25%	AA+ (bra) Fitch
Windepar Holding S/A	WDPR11	12/15/2016	12/15/2028	ICVM 476	12	6.90	67.50	IPCA + 7,63%	Energy	1.40%	AA+ (bra) Fitch
Celpa - Estado do Para	CLPP13	12/26/2016	12/15/2023	ICVM 400	5	4.38	199.07	IPCA + 6,70%	Energy	0.40%	A+ (bra) Fitch
	CLPP23				7	5.76	100.93	IPCA + 6,87%		0.65%	
Calango 6 Energia Renovável S/A	CLNG11	12/27/2016	6/27/2028	ICVM 476	12	6.48	43.50	IPCA + 8,73%	Energy	2.50%	AA+ (bra) Fitch

Continuation – 2016

Issuer	Ticker	Distribution Date	Due Date	Offer type	Maturity (years)	Duration <sup>1</sup> (years)	Value (R\$ million)	Yield <sup>2</sup>	Sector	Spread Over NTN-B	Rating (local)
Comgás	GASP15	12/28/2016	12/15/2023	ICVM 400	7	5.90	675.00	IPCA + 5,87%	Energy	(0.50)%	AAA (bra) Fitch
Marechal Rondon Energia S/A	MRHL12	12/29/2016	6/30/2026	ICVM 476	10	6.40	15.0	IPCA + 8,00%	Energy	1.71%	
<b>Total.....</b>							<b>4,252.3</b>				

Source: Anbima, Rating reports and Debentures Agreements  
 Elaborated by SPE/ME

**Note:**

(1) In this presentation we consider duration (Macaulay duration) as a measure of the sensitivity of the price (value of principal) of a infrastructure Bond expressed as a number of years. This indicator involving present value, yield, coupon and final maturity.

(2) Consumer Price Index - CPI (IPCA)

## Infrastructure Bonds: Infrastructure Investment Projects - 2015

Issuer	Ticker	Distribution Date	Due Date	Offer type	Maturity (years)	Duration <sup>1</sup> (years)	Value (R\$ million)	Yield <sup>2</sup>	Sector	Spread Over NTN-B	Rating (local)
Empresa de Energia Cachoeira Caldeirão S/A	CADR13	1/26/2015	6/15/2030	ICVM 476	16	9.20	156.5	IPCA + 7,27%	Energy	1.40%	AA (bra) Fitch
MRS Logística S/A	MRSL27	2/15/2015	2/15/2025	ICVM 400	10	7.07	214.4	IPCA + 6,42%	Transport	0.35%	AA+ (bra) Fitch
	MRSL17	2/26/2015	2/15/2022		7	5.54	336.3	IPCA + 5,98%		0.00%	
Salus Infraestrutura Portuária S/A	SAIP11	3/15/2015	10/15/2024	ICVM 400	10	5.48	320.9	IPCA + 6,79%	Transport	0.50%	AA+sf1 (br) Moody's
Autopista Planalto Sul S/A	APPS12	4/7/2015	12/15/2025	ICVM 476	11	7.50	100.0	IPCA + 8,17%	Transport	1.70%	AAA (bra) Fitch
Rodovias Integradas do Oeste S/A	RVIO14	4/24/2015	4/15/2020	ICVM 476	5	4.54	190.0	IPCA + 6,38%	Transport	0.15%	Aa1 (br) Moody's
Alupar Investimentos S/A	APAR16	5/14/2015	4/15/2021	ICVM 476	6	4.60	250.0	IPCA + 7,33%	Energy	0.90%	AA+ (bra) Fitch
VLI Multimodal S/A	VLIM11	7/16/2015	6/15/2020	ICVM 476	5	4.38	232.4	IPCA + 6,88%	Transport	0.30%	AA (bra) Fitch
Concessionária Rodovia dos Lagos S/A	RDLA12	7/24/2015	7/15/2020	ICVM 476	5	4.29	150.0	IPCA + 7,34%	Transport	0.14%	Aa2 (br) Moody's
Geradora Eólica Bons Ventos da Serra I S/A	GLIC11	7/30/2015	12/15/2026	ICVM 476	12	7.35	10.3	IPCA + 9,43%	Energy	3.00%	brBBB (S&P)
CIA de Saneamento do Tocantins - Saneatins	SNTI13	8/12/2015	7/31/2022	ICVM 476	7	4.40	50.0	IPCA + 10,33%	Water and Sewerage	3.00%	A (bra) Fitch
	SNTI23		7		4.40	140.0	3.00%				
Ventos de São Tome Holding S/A	TOME12	8/20/2015	12/15/2027	ICVM 476	12	6.30	89.0	IPCA + 8,86%	Energy	1.70%	AA (bra) Fitch
Vale S/A	VALE19	9/11/2015	8/15/2020	ICVM 400	5	4.37	800.0	IPCA + 6,62%	Transport	0.50%	AAA (bra) Fitch
	VALE29		7		5.74	550.0	IPCA + 6,63%	0.50%			
Chapada do Piauí I Holding S/A	CHPA11	9/17/2015	3/15/2029	ICVM 476	14	7.90	100.0	IPCA + 9,22%	Energy	1.75%	brAA (S&P)
NC Energia S/A	NCEN11	10/1/2015	12/15/2025	ICVM 476	10	5.70	31.6	IPCA + 7,89%	Energy	0.60%	Aa1 (br) Moody's
EDP Energias do Brasil S/A	ENBR24	10/13/2015	9/15/2021	ICVM 400	6	4.10	179.9	IPCA + 8,32%	Energy	1.00%	Aa3 (br) Moody's
	ENBR34	10/14/2015	9/15/2024		9	5.90	48.1	IPCA + 8,26%		1.00%	
Ultrafertil S/A	ULFT11	10/28/2015	6/15/2027	ICVM 476	12	6.40	115.0	IPCA + 9,06%	Transport	1.50%	AA- (bra) Fitch
Copel Telecomunicações S/A	CTEL11	11/10/2015	10/15/2024	ICVM 476	9	6.00	160.0	IPCA + 7,96%	Telecoms	0.60%	AA+ (bra) Fitch
Ventos de São Tito Holding S/A	VNTT11	12/14/2015	6/15/2028	ICVM 476	13	5.71	111.0	IPCA + 9,24%	Energy	1.70%	AA (bra) Fitch
AES Tietê S/A	TIET34	12/15/2015	12/15/2020	ICVM 400	5	4.20	301.8	IPCA + 8,43%	Energy	1.50%	ba1 (br) Moody's

## Continuation – 2015

Issuer	Ticker	Distribution Date	Due Date	Offer type	Maturity (years)	Duration <sup>1</sup> (years)	Value (R\$ million)	Yield <sup>2</sup>	Sector	Spread Over NTN-B	Rating (local)
CIA de Gás de São Paulo - Comgás	GASP14				5	4.36	269.6	IPCA + 7,14%		(0.30)%	
	GASP24	12/23/2015	12/15/2020	ICVM 400	7	5.35	242.4	IPCA + 7,48%	Energy	0.00%	AA+ (bra) Fitch
	GASP34				10	6.77	79.9	IPCA + 7,36%		0.00%	
Centrais Eólicas Caetité S/A	CAET12	12/30/2015	12/15/2028	ICVM 476	13	6.20	33.5	IPCA + 9,31%	Energy	1.80%	AA- (bra) Fitch
<b>Total.....</b>							<b>5,262.5</b>				

Source: Anbima, Rating reports and Debentures Agreements  
Elaborated by SPE/ME

**Note:**

(1) In this presentation we consider duration (Macauley duration) as a measure of the sensitivity of the price (value of principal) of a infrastructure Bond expressed as a number of years. This indicator involving present value, yield, coupon and final maturity.

(2) Consumer Price Index - CPI (IPCA)

## Infrastructure Bonds: Infrastructure Investment Projects - 2014

Issuer	Ticker	Distribution Date	Due Date	Offer type	Maturity (years)	Duration <sup>1</sup> (years)	Value (R\$ million)	Yield <sup>2</sup>	Sector	Spread Over NTN-B	Rating (local)
Aeroporos Brasil - Viracopos S.A. (Vencimento Antecipado)	VRCP11	2/5/2014	9/15/2025	ICVM 476	12	7.4	75.0	IPCA + 8,79%	Transport	2.27%	AA- (bra) Fitch
	VRCP21						75.0				
	VRCP31						75.0				
	VRCP41						75.0				
Vale S/A	VALE18	2/10/2014	1/15/2021	ICVM 400	7	5.5	600.0	IPCA + 6,46%	Transport	(0.15)%	brAAA (S&P)
	VALE28				10	7.1	150.0	IPCA + 6,57%		(0.10)%	
	VALE38				12	8.1	100.0	IPCA + 6,71%		0.00%	
	VALE48				15	8.8	150.0	IPCA + 6,78%		0.00%	
Concessionária do Aeroporto Internacional de Guarulhos S/A	AGRU11	3/21/2014	3/15/2025	ICVM 476	11	6.0	75.0	IPCA + 7,86%	Transport	1.40%	AA (bra) Fitch
	AGRU21						75.0				
	AGRU31						75.0				
	AGRU41						75.0				
Santo Antônio Energia S/A.	STEN13	5/2/2014	4/15/2022	ICVM 400	8	5.8	200.0	IPCA + 7,05%	Energy	0.85%	AA+ (bra) Fitch
	STEN23				10	6.7	500.0	IPCA + 7,49%		1.18%	
CPFL - Geração de Energia S/A	CPGE18	5/28/2014	4/28/2019	ICVM 476	5	4.5	70.0	IPCA + 5,86%	Energy	(0.09)%	AA+ (bra) Fitch
Ferreira Gomes Energia S/A	FGEN13	8/1/2014	12/15/2027	ICVM 400	14	7.9	210.9	IPCA + 6,47%	Energy	0.48%	AA+ (bra) Fitch
Rodonorte - Conces. de Rod. Integradas S/A	RDNT14	10/15/2014	10/15/2019	ICVM 476	5	4.4	130.0	IPCA + 5,69%	Transport	0.10%	Aaa (br) Moody's
Transmissora Sul Brasileira de Energia S/A	TSBE12	10/22/2014	9/15/2028	ICVM 476	14	8.2	77.6	IPCA + 6,80%	Energy	1.00%	AA+ (bra) Fitch
Concessionária de Rodovias do Oeste de São Paulo - Viaoeste	VOES25	10/27/2014	9/15/2019	ICVM 476	5	4.4	150.0	IPCA + 5,67%	Transport	0.00%	brAAA (S&P)
Conces. do Sistema Anhanguera-Bandeirantes S/A	ANHB16	10/27/2014	10/15/2019	ICVM 400	5	4.4	545.0	IPCA + 5,43%	Transport	(0.15)%	AAA (bra) Fitch
Conces. do Aeroporto Internacional de Guarulhos S/A.	AGRU12	10/27/2014	10/15/2026	ICVM 400	12	6.9	300.0	IPCA + 6,40%	Transport	0.90%	AA (bra) Fitch
Santa Vitória do Palmar Holding S/A.	SVIT11	10/31/2014	6/15/2028	ICVM 476	14	8.0	90.0	IPCA + 7,94%	Energy	1.92%	AA (bra) Fitch
Conces. de Rodovias do Interior Paulista S/A	IVIA24	11/4/2014	10/15/2019	ICVM 476	5	4.5	225.0	IPCA + 5,96%	Transport	0.12%	Aa (br) Moody's



## Continuation – 2014

Issuer	Ticker	Distribution Date	Due Date	Offer type	Maturity (years)	Duration <sup>1</sup> (years)	Value (R\$ million)	Yield <sup>2</sup>	Sector	Spread Over NTN-B	Rating (local)
Linhas de Taubaté Transmissora de Energia S/A	LTTE14	12/15/2014	3/15/2030	ICVM 476	15	7.90	44.5	IPCA + 7,88%	Energy	1.50%	AA+ (bra) Fitch
Supervia-Concessionaria de Transporte Ferroviário S/A	SPVI12	12/23/2014	12/15/2026	ICVM 476	12	6.04	300.0	IPCA + 7,50%	Transport	1.85%	AA- (bra) Fitch
Engie Brasil Energia S/A	TBLE15	12/23/2014	12/15/2024	ICVM 476	10	7.09	165.0	IPCA + 6,30%	Energy	0.00%	AAA (bra) Fitch
Renova Eólica Participações S/A	RNEP11 RNEP21	12/29/2014	12/15/2025	ICVM 476	11 11	5.40 5.50	73.0 73.0	IPCA + 7,61% IPCA + 7,87%	Energy	1.40% 1.65%	AA- (bra) Fitch
<b>Total.....</b>							<b>4,754.0</b>				

Source: Anbima, Rating reports and Debentures Agreements  
Elaborated by SPE/ME

**Note:**

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(2) Consumer Price Index - CPI (IPCA)

## Infrastructure Bonds: Infrastructure Investment Projects - 2013

Issuer	Ticker	Distribution Date	Due Date	Offer type	Maturity (years)	Duration <sup>1</sup> (years)	Value (R\$ million)	Yield <sup>2</sup>	Sector	Spread Over NTN-B	Rating (local)
Santo Antonio Energia S/A.	SAES12	1/24/2013	12/27/2022	ICVM 476	10	6.2	420.0	IPCA + 6,20%	Energy	3.11%	
Interligação Elétrica do Madeira S/A.	IEMD12	3/18/2013	3/18/2025	ICVM 476	12	7.0	350.0	IPCA + 5,50%	Energy	1.69%	AA+ (bra) Fitch
Concessionária Ecovias dos Imigrantes S/A.	ECOV12	5/7/2013	4/15/2020	ICVM 400	7	5.9	200.0	IPCA + 3,80%	Transport	0.00%	AAA (bra) Fitch
	ECOV22	5/7/2013	4/15/2024		11	5.7	681.0	IPCA + 4,28%		0.20%	
Concessionária Rodovias do Tietê S/A.	RDVT11	7/5/2013	6/15/2028	ICVM 400	15	7.4	1,065.0	IPCA + 8,00%	Transport	2.16%	Aa2 (br)- Moody's
CIA de Gás de São Paulo - Comgás - (Vencida)	GASP23	10/9/2013	9/15/2018	ICVM 400	5	3.7	269.3	IPCA + 5,10%	Energy	0.00%	AA+ (bra) Fitch
	GASP33	10/10/2013	9/15/2020		7	5.6	142.5	IPCA + 5,57%		0.31%	
Concessionária do Sistema Anhanguera - Bandeirantes S/A	ANHB15	10/17/2013	10/15/2018	ICVM 400	5	4.5	450.0	IPCA + 4,88%	Transport	(0.38)%	AA+ (bra) Fitch
Norte Brasil Transmissora de Energia S/A	NRTB11	10/21/2013	9/15/2026	ICVM 476	13	7.4	100.0	IPCA + 7,15%	Energy	1.55%	AAA (bra) Fitch
	NRTB21				13	7.4	100.0			1.55%	
Odebrecht Transport S/A	ODTR11	11/14/2013	10/15/2025	ICVM 476	12	8.6	300.0	IPCA + 6,70%	Transport	1.55%	A+ (bra) Fitch
Jauru Transmissora de Energia S/A.	JAUR12	11/25/2013	12/15/2030	ICVM 476	18	10.4	39.0	IPCA + 8,00%	Energy	2.29%	AA- (bra) Fitch
Termelétrica Pernambuco III S/A-(Vencimento Antecipado)	TEPE11	12/20/2013	11/15/2025	ICVM 400	12	5.0	75.0	IPCA + 9,11%	Energy	2.75%	AA+ (bra) Fitch
	TEPE21						75.0				
	TEPE31						75.0				
	TEPE41						75.0				
<b>Total.....</b>							<b>4,416.8</b>				

## Infrastructure Bonds: Infrastructure Investment Projects - 2012

Issuer	Ticker	Distribution Date	Due Date	Offer type	Maturity (years)	Duration <sup>1</sup> (years)	Value (R\$ million)	Yield <sup>2</sup>	Sector	Spread Over NTN-B	Rating (local)
Linhas de Transmissão de Montes Claros S/A.	LTMC12	9/27/2012	4/15/2029	ICVM 476	17	12.9	25.0	IPCA + 8,75%	Energy	4.51%	AA+ (bra) Fitch
Rumo Malha Norte S/A.	FERR18	10/18/2012	10/18/2020	ICVM 476	8	5.7	160.0	Prefixado 10,10%	Transport		A (bra) Fitch
Concessionária Sistema Anhanguera - Bandeirantes S/A - (Vencida)	ANHB24	10/22/2012	10/15/2017	ICVM 400	5	4.3	135.0	IPCA + 2,71%	Transport	0.01%	brAAA (S&P)
Concessionária Auto Raposo Tavares S/A	CART12	12/26/2012	12/15/2024	ICVM 400	12	7.9	380.0	IPCA + 5,80%	Energy	2.41%	AA+ (bra) Fitch
<b>Total.....</b>							<b>700.0</b>				

Source: Anbima, Rating reports and Debentures Agreements  
Elaborated by SPE/ME

**Note:**

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(2) Consumer Price Index - CPI (IPCA)

## Annex 2

## Capex Bonds: General Investment Debentures - 2020

Issuer	Ticker	Distribution Date	Due Date	Offer type	Maturity (years)	Value (R\$ million)	Yield <sup>1</sup>	Sector	Rating (local)
Agasus S.A	AGAU21	1/10/2020	1/10/2026	ICVM 476	6	20.0	Pré - 12,45%	Computing	
Total.....						20.0			

## Capex Bonds: General Investment Debentures - 2019

Issuer	Ticker	Distribution Date	Due Date	Offer type	Maturity (years)	Value (R\$ million)	Yield <sup>1</sup>	Sector	Rating (local)
Attend Ambiental S.A	ATAM21	10/1/2019	10/15/2026	ICVM 476	7	20.5	IPCA + 8,11%	Water and Sewerage	
Total.....						20.5			

## Capex Bonds: General Investment Debentures - 2018

Issuer	Ticker	Distribution Date	Due Date	Offer type	Maturity (years)	Value (R\$ million)	Yield <sup>1</sup>	Sector	Rating (local)
Rede D'OR São Luiz S/A	HSLZA0	1/4/2018	1/13/2028	ICVM 476	10	1,628.1	Pré 11,82%	Health	AA (bra) Fitch
Heinz Brasil S/A	HENZ11	4/11/2018	4/15/2028	ICVM 476	10	655.0	Pré 11,50%	Foods	
Total.....						2,283.1			

## Capex Bonds: General Investment Debentures - 2015

Issuer	Ticker	Distribution Date	Due Date	Offer type	Maturity (years)	Value (R\$ million)	Yield <sup>1</sup>	Sector	Rating (local)
AMBEV S/A	ABEV11	10/30/2015	10/30/2021	ICVM 476	6	1,000.0	Pré 14,47%	Drink	brAAA (S&P)
Total.....						1,000.0			

Source: Anbima, Rating reports and Debentures Agreements  
Elaborated by SPE/ME

Note:  
(1) Consumer Price Index - CPI (IPCA)

## Capex Bonds: General Investment Debentures - 2013

Issuer	Ticker	Distribution Date	Due Date	Offer type	Maturity (years)	Value (R\$ million)	Yield <sup>1</sup>	Sector	Rating (local)
Marfrig Global Foods S/A. - (Vencida)	MRFG14	4/15/2013	1/22/2019	ICVM 476	6	570.0	Pré 15,85%	Foods	AA+ (bra) Fitch
Centrad - Conc. Centro Adm. Distrito Federal S/A. - (Vencimento Antecipado)	CTRD11 CTRD21	7/11/2013	3/15/2018	ICVM 476	5	50.0 50.0	IPCA + 7,97%	Real Estate Industry	
OAS S.A. - (Em Recuperação Judicial)	OAEP18 OAEP28	7/25/2013	7/21/2024	ICVM 476	11	347.4 347.4	Pré 9,47%	Sanitation and Shipyard	BB+sf (bra) Fitch
LafargeHolcim (BRASIL) S/A - (Resgate Total Antecipado)	HOLC11	10/21/2013	10/1/2023	ICVM 476	10	450.0	Pré 14%	Cement	AAA
Raizen Energia S/A	RESA31	10/29/2013	10/15/2020	ICVM 400	7	304.0	IPCA + 6,38%	Production of Sugar and Ethanol	brAAA (S&P)
<b>Total.....</b>						<b>2,118.7</b>			

## Capex Bonds: General Investment Debentures - 2012

Issuer	Ticker	Distribution Date	Due Date	Offer type	Maturity (years)	Value (R\$ million)	Yield <sup>1</sup>	Sector	Rating (local)
Minerva S/A. - (Vencimento Antecipado)	BEEF13	6/20/2012	1/29/2022	ICVM 476	10	450.0	Pré 16,95%	Foods	BB (bra) Fitch
Rio Canoas Energia S/A.	RCNE22	8/15/2012	12/15/2024	ICVM 476	12	75.0	IPCA + 7,89%	Energy	
OGX Petróleo e Gás S/A. - (Em Recuperação Judicial)	OGXP11	9/28/2012	3/28/2022	ICVM 476	10	2,025.0	Pré 10,50%	Oil and Gas	A+ (bra) Fitch
BR Malls Participações S/A. - (Vencimento Antecipado)	BRML13	12/17/2012	1/17/2024	ICVM 476	11	364.0	Pré 13,49%	Comercial Centers	AA+ (bra) Fitch
<b>Total.....</b>						<b>2,914.0</b>			

Source: Anbima, Rating reports and Debentures Agreements  
Elaborated by SPE/ME

## Note:

(1) Consumer Price Index - CPI (IPCA)

## Annex 3



## Green Certificated Infrastructure Debentures



Issuer	Ticker	Distribution Date	Value (R\$ million)	Sector
Potami Energia S/A	PTMI11	5/11/2017	42.4	Energy
Itarema Geração Energia S/A	ITGE13	6/16/2017	111.8	Energy
Omega Energia e Implantação 2 S/A	OMNG12	11/24/2017	220.0	Energy
Eólica Serra das Vacas Holding II S/A	EVOL11	12/11/2017	48.0	Energy
Enel Green Power Maniçoba Eólica	EGME11	12/28/2017	10.8	Energy
Enel Green Power Damascena Eólica	ENDE11	12/28/2017	11.3	Energy
CTEEP-CIA Energia Paulista S/A	CTEE17	4/23/2018	621.0	Energy
Rumo Malha Norte S/A.	TIET29	3/17/2019	641.1	Energy
	TIET39	4/17/2019	178.9	
Transmissora Aliança S.A.	TAAE26	5/24/2019	210.0	Energy
Transmissora Aliança Energia Elétrica S.A	TAAE17	10/25/2019	508.0	Energy
Janauba Transmissora de Energia S.A.	JTEE12	12/20/2019	575.0	Energy
TSM - Transmissora Serra da Mantiqueira S.A.	TSMM11	12/26/2019	530.0	Energy
Transmissora Aliança Energia Elétrica S.A	TAAE18	1/17/2020	300.0	Energy
Eren Dracena Participações S/A	EREN13	2/19/2020	215.0	Energy
	EREN23		65.0	
Total.....			4,288.2	

Source: Anbima, Rating reports and Debentures Agreements  
Elaborated by SPE/ME

Nota: (1) These debentures are already included in the respective slides above linked to the year of their distribution.

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