2017 Letter

Introduction

Last November, Studio completed eight years of existence. It is with great satisfaction that we look back at our journey and see the entire path we walked together with a united group of partners. It is even more rewarding to have contributed to the professional training and development of six other members that are currently part of Studio's team. As a partnership, during this term, we have already promoted three members of the analysis and trading team to partners. Looking back, we had various obstacles along the way, but precisely because of those, we feel even more prepared.

Like every company, Studio is a dynamic organism and, as we integrate new partners, others follow their natural paths to pursue new things in life. Therefore, we would like to inform you that, as of this year, one of our founding partners, Gabriel Stoliar, will reduce his participation and will no longer hold an executive position at Studio. Despite moving away from the everyday activities of the company, he will continue to support us in specific activities related to his professional experience and in some general matters in an advising role. We are extremely grateful to the essential contribution of Gabriel in the creation and consolidation of Studio: his valued experience and skills were essential to solidify our values and goals.

We highlight below, as usual, two cases among those that have positively contributed the most to the performance of the fund during the year, Estácio and Iguatemi; in addition to Eletrobrás, which was the biggest negative contribution in the period.

Estácio

We started to invest again in Estácio after CADE[1]' rejects the deal with Kroton in June 2017.

The first proposal for acquisition of control of the Rio de Janeiro education company by Kroton was submitted on June 2, 2016. Such move was followed by a merger proposal by other competitor, the Ser Group. Kroton was also required to improve its proposal twice (with a final ratio that was 41% higher than the original terms) to obtain the support of Estácio's Board of Directors and its main shareholders.

When we look at the operational data of Estácio, as we can notice in the table below, we saw that there was relevant potential for improvement of profitability of its operations, which has been far below peers. Despite the large scale of the company, having almost three times the students than Ser, its operating margin was significantly lower (approximately 10 pp lower on EBITDA margin). The ratio "teaching staff cost/students" were also significantly higher than those of Ser and Kroton. Anima was an exception, as it had a more premium position, with higher costs/students.

[1] CADE: Brazil's state antitrust board

2016	Estácio	Kroton	Ser	Anima
Average Base of On-Site Students	356,175	432,115	137,508	83,346
Average Base of Distance Learning Students	119,250	458,453	5,591	3,949
Ebitda Margin – Studio	**20%**	**43%**	**30%**	14%
Revenue per student (on-site only) – BRL/Year	7,927	9,111	8,037	10,992
Staff cost per student (on-site only) – BRL/Year	**-3,748**	**-2,110***	**-2,621**	-4,878

***Kroton on-site only cost data. For all others, total personnel Cost divided by the on-site base.**

Source: Studio Investments

As soon as the most representative shareholders of Estácio and its Board of Directors approved the terms of the merger with Kroton, their shares started to be traded with a small discount in relation to the proposed ratio. As such, investors ceased monitoring the company's results, and the company became more isolated. Therefore, the presence of its investors' relations team and top management became rare at meetings with the capital market. It is worth mentioning that, in this process of dispute for the company's control; there has been an intense change of managers, with the dismissal of three executive directors within a period of 15 days, including the former CEO and CFO.

Within this context, even recognizing the opportunities for improving the profitability of Estácio, intense changes in the management structure of the company made us fearful regarding the capacity and its incentives for a quick improvement in profitability, especially in a scenario of rejection of the deal by CADE that became more and more likely throughout the first semester of 2017.

With the rejection of the transaction confirmed in late June and with a bad performance of Estácio's shares, we decided to start the investment, but still of a modest size (2% of the fund). We believed the company had a relevant strategic value for any consolidating player in the sector. Therefore, even if the results did not improve significantly by the current management of the company, soon there would be interested investors or a strategic player who could pay a premium to acquire the company's control. The company was trading at the time with a multiple EV/student[2] far lower than its listed peers, as can be seen in the table below. It is also evident that such discount was justified by a large extent from its lower relative profitability. It is worth mentioning that after the rejection of the transaction by CADE, Estácio traded 35% below the offer price of June 2016 made by Ser. The company, in our opinion, represented one of the few assets in the Brazilian market that was trading with a discount to its peers, even with strong presence in its segment of operation, clear competitive advantage and with potential to be sold.

[2] EV/student => Enterprise value ratio divided by the student base. Enterprise Value = company's market value + Net debt

(MM BRL/# students)	Estácio	Kroton	Ser	Anima
Market Cap – end 2Q17	4,648	24,180	3,068	1,326
Net Debt – end 2Q17	698	-708	131	250
EV	**5,346**	**23,471**	**3,199**	**1,576**
Final Base of On-Site Students– 2Q17	358,300	425,109	138,453	90,113
Final Base of Distance Learning Students– 2Q17	141,700	541,851	7,389	3,651
Total Final Base of Students– 2T17	**500,000**	**966,960**	**145,842**	93,764
EV/Student (thousands BRL/student)	**10.7**	**24.3**	**21.9**	**16.8**

Surprisingly, an improvement in the profitability of Estácio occurred quickly and was already quite visible in the first result reported after CADE's rejection, already in late July. At this point, we took the opportunity to increase our position. The results presented by the company showed strong evolution of the average ticket per student (up by 11.7% y/y) with a reduction in the discount policy to attract students and good improvement in staff cost ratio, which dropped 8.7% in nominal terms, with a dilution of 7.4 pp in relation to revenue. With this, the EBITDA margin increased by incredible 10.7 pp, with the nominal EBITDA increasing by 75% y/y.

In addition to a more restricted commercial policy, the company adopted a series of measures seeking greater profitability through an increase in the number of students per classroom. Among such measures, we can highlight greater sharing of subjects between different courses and a reduction in the number of campuses in operation, transferring students from nearby campuses to larger ones. The latter also contributed to a cost reduction in structure and administrative support.

It is almost inevitable that such process causes complaints from students and professors and depending on the speed and intensity of the execution; it can jeopardize the academic quality of the institution and put its future at risk. In some interactions we had with representatives of the sector, we heard that Estácio reduced teaching staff costs through the reduction of class hours of professors with higher qualification and with better hourly wages.

It is worth mentioning that, almost simultaneously to when the company reported its 2Q17 results, its shares reported atypical trading volumes. Days after that, it would be confirmed that Advent, a private equity with successful history in the sector, with investment in Kroton in 2010, was purchasing shares of the company and would then appoint two members for the company's Board of Directors. We considered as positive the entry of a reputable investor to align the management incentives with those of shareholders. We took advantage of such move to increase, once again, our investments in the company, reaching the maximum of our exposure in the asset, nearly 5% of the fund in August 2017.

However, since then, Estácio's share price practically doubled. And, looking at the market expectations for the 2018 results, we can already see that the expected profitability gap for Estácio in relation to competitors has been significantly reduced. For 2018, the expectation is that the EBITDA margin already exceeds that of Ser, still much lower than Kroton' s. The latter, however, has a larger scale, higher ratio of distance learning students and students with its own financing, aspects which render the margin less comparable.

2018 – Forecast	Estácio	Kroton	Ser	Anima
Adjusted Ebitda Margin	28%	43%	25%	18%

Studio Investments Forecast

Estácio continues to adopt measures for cost reduction, with the recent dismissal of 10% of its teaching staff, which had strong negative repercussion on the teacher's unions and student base of the institution. We believe that there is still room for additional improvement in the company's profitability in the short term. But sustainability in the medium term still seems questionable to us. It is important to consider that the base of Estácio's on-site students has already been reduced by 5% in the first 9 months of this year. In a sector with high fixed costs, such decrease dynamics are harmful and tend to work as an opposite vector to the internal costs cuts for additional profitability improvement. Moreover, the company has a more relevant position in regions that were more affected by the economic crisis than the national average, such as Rio de Janeiro and the Northeast Region. Lastly, we do not consider the dynamics of growth of the sector as favorable, especially if we consider that the entry of students in the years of 2011-2014 was above the normal level and leveraged by the incentives of the student financing program, FIES, as previously described in our Letter 13 of 2015 "Seeking a new point of balance". It´s important to highlight that those students are still graduating and making the companies' student bases increasingly smaller.

Taking such aspects into account, in November, we divested in Estácio and kept a small position in Ser in the education sector, which should benefit, in the following years, from the growth resulting from the opening of new campuses, the on-site segment and with its recent entry in the distance learning education segment. Such moves should help the expansion of its operating margins which have been recently compressed as a result of the strong opening of new campuses - which have a slow maturation and initially adversely affect the results.

Iguatemi

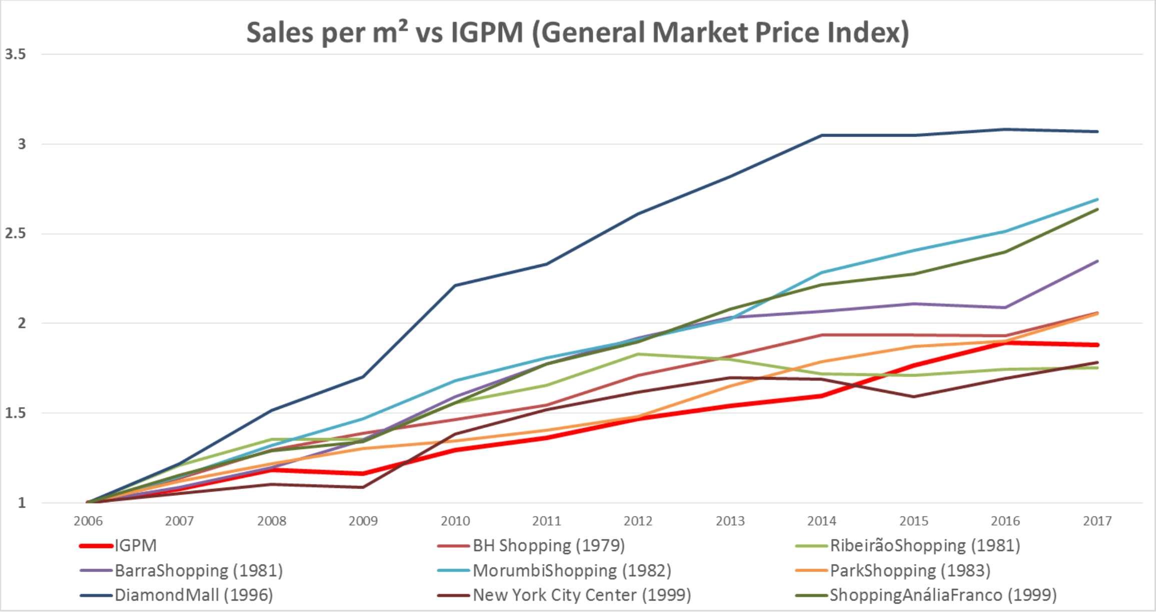
We began investing in Iguatemi in early 2016. At that point, the Brazilian economic perspective was very negative; however, we saw great value in its portfolio of assets and the shares were traded with an attractive valuation and margin of safety in case consumption was resumed at a slower pace than expected.

Before specifically entering into Iguatemi's case, we will briefly speak about how we see, in general, the mall companies that we cover. Among those companies in the sector which are listed in the stock exchange, we only consider Aliansce, BR Malls, Iguatemi and Multiplan as potential investments for the fund due to liquidity and governance reasons.

Moreover, we clearly identify a subdivision of such companies in two groups.

Multiplan and Iguatemi have a more premium portfolio, focused on the A/B+ classes, with emblematic and dominant assets such as Morumbi Shopping (SP), Barra Shopping (RJ), Iguatemi SP and JK Iguatemi (SP). Such companies have a high percentage of revenue concentrated on shopping malls that we believe to be winners and able to structurally increase sales in the long term, even with growing risks due to the increase of penetration of e-commerce in retail. In our understanding, their main assets are able to attract winning stores, constantly renewing the mix of shops and presenting growth rates above the market average. Consequently, such shopping malls will be able to consistently present real sales and rental growth for a long time. We will refer to such companies as *Tier 1*.

Despite the difficulty of access to a relatively long and reliable database, we tried, in the chart below, to expose our thesis with data from Multiplan assets (the only company that discloses such information). We selected the sales data from 2006 to 2017 for those assets that already had at least 8 years of existence (they had 19 years on average) in 2006 to try to disregard the maturation period of a shopping mall, in which period the sales growth naturally is significantly above the inflation.



Source: Studio investimentos and Multiplan

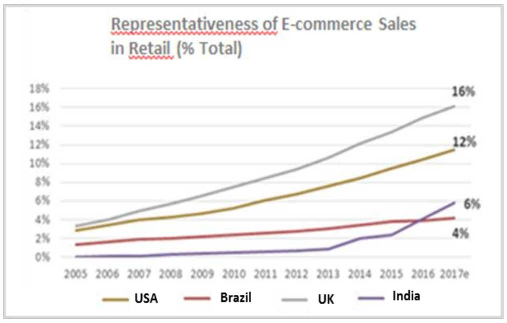
During the years 2006 and 2017, sales per square meter of such assets grew at a real rate of 1.9% per year. We believe that the portfolio of the *Tier 1* companies will be able to continue to grow at real rates over time. Such premise is quite important in the assessment of the companies, as they address cash flows with long duration.

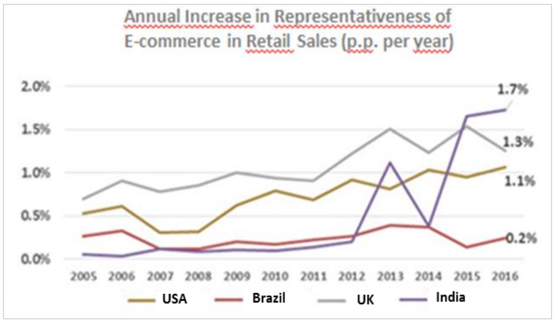
It is worth making a note about the long term growth matter. We do not like to consider such real growth in perpetuity for any company, given the implied assumption, in such case, would be that of continuously increasing marginal returns over capital, which we do not believe to be reasonable in any business. The only companies we treat differently are Multiplan and Iguatemi, as we believe that a mall premium portfolio will continue to gain value over time. Excellent shopping malls will always attract retailers that perform better. Even in the case of companies we admire and believe will remain performing better than the competition, such as Lojas Renner, we do not believe the actual growth in perpetuity to be coherent for two main reasons:

i) The owner of the real estate (shopping mall companies) ends up with part of the productivity gains of Renner over time.

ii) It will always be possible to have more direct competition with Renner than with Barra Shopping, Morumbi or Iguatemi SP. That is, such good assets of shopping mall companies are perhaps the most difficult ones to be replicated in our investment portfolio.

The *e-commerce* in Brazil will also have a large growth potential ahead. Considering the experience of developed countries, we saw acceleration in the penetration of e-commerce in more recent years, something that could be explained by the initial resistance from consumers to migrate channels or for the time necessary for retailers to structure themselves logistically and technologically for a new growth cycle. As we can see in the charts below, e-commerce still has low representativeness in the total sales of Brazil and it still grows at a rate below the average of the main analyzed countries. We believe that, in a near future, we will see in Brazil acceleration in the e-commerce share in total retail and such dynamic are, without a doubt, the greatest challenge for the sector.





Source: Euromonitor

Online consumers are the most sensitive with regard to price and convenience; therefore, physical retail shall seek differentiation in the purchase experience and on the client service level. *Omni-channel*[3] becomes a trend among retailers with presence in both channels, always willing to deliver to its client a better combination between price and experience, by also using the physical channel as a form of strengthening the brand and retaining clients. Such model seems more relevant for certain categories, such as food, for instance. It seem likely that, in the future, a large portion of the stores will become only showrooms of an assortment of the brands, with sales occurring online and the clients leaving the store with empty hands. Store owners would not need additional inventory and would carry out deliveries directly from their distribution centers.

Within such context of challenges and great changes, retailers must be more selective regarding addresses where they wish to be present, always seeking locations with more traffic, income and

[3] *Omni-channel* is the convergence of all sales channels of a company, enabling consumers to shop in physical or virtual environments, choosing whatever pleases them.

sales potential. It is inevitable to assume that the physical retail transactions will continue to lose relevance and the street stores and peripheral malls will be the biggest losers with such move, something that is already happening in the USA, where the death of 25% of shopping malls has already been declared[4]. Therefore, in a general manner, the dominant shopping malls should be an environment more suited to the new context of consumption, as they hold most sought-after points and real estate listings with the highest value.

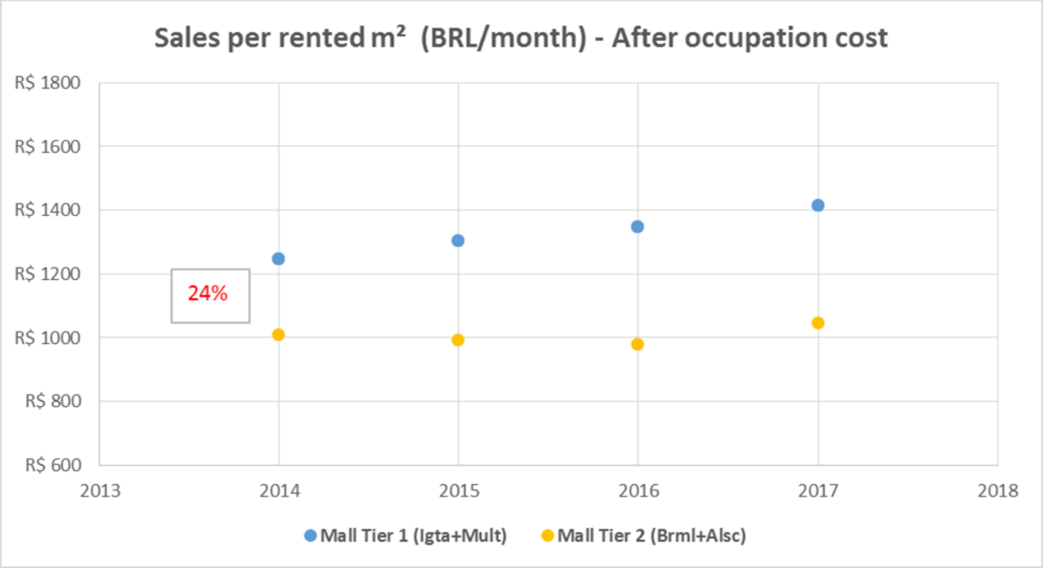
On the other hand, BR Malls and Aliansce are companies with more recently formed portfolios and less dominant positions in regions in which they are present, in addition to being focused on a B/C class target audience. The strategy adopted by these companies was very successful during the income growth cycle and consumption of the Brazilian economy observed until 2013. During this period, in which emerging classes located in peripheral regions had more access to consumption, these companies managed to grow in a profitable manner and created portfolios above the national average. We will refer to such companies as *Tier* 2. Despite of the fact that we recognize the merit and value creation of this strategy over the past years, especially due to a boost in the economy, we believe that, in the long term, this type of assets will have more difficulty to maintain sustainable growth and, therefore, the risk x return must be adjusted to this.

We noticed a significant change in the strategy of players in relation to this category of less dominant shopping malls. While, until 2012, there was a boom in investments in this type of asset, more recently companies like BR Malls and Aliansce have sold some of these assets to real estate funds which, in our opinion, is evidence that strategic players already do not see a very promising future for a more fragile portfolio.

In our opinion, the valuation premium that Tier 1 companies traded on the stock exchange is much lower than the superiority of their assets. We believe that, implicitly, the market is overestimating the ability of Tier 2 companies to grow sustainably in the long term.

The chart below illustrates this same topic, but in a different manner. We tried to estimate how much the average store owner has in return (in BRL) after bearing all the costs of occupancy, including rent, condominium and promotion fund. As the remaining costs of a store owner (such as the costs of employees and products sold, etc.) do not vary very much because it is located in shopping mall A or B, this is a good way to analyze the attractiveness of the shopping mall and its ability to constantly change its mix, always attracting winning store owners.

[4] Credit-Suisse study conducted in 2017.



Source: Studio investments and Release of results of Multiplan, Iguatemi, Aliansce and Br Malls

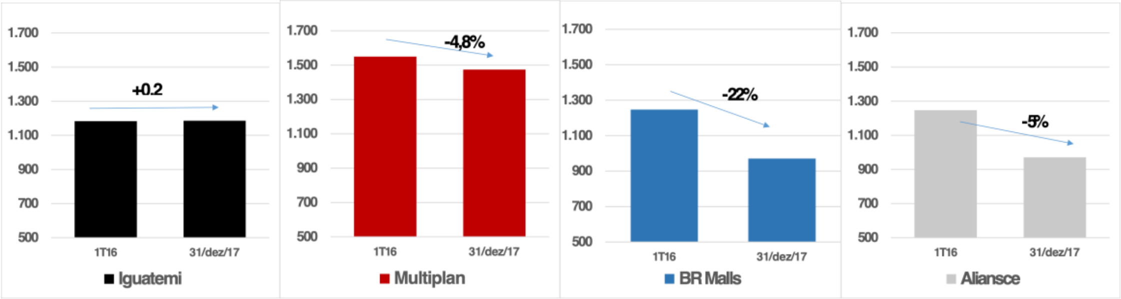
Despite being a simplistic analysis, since it is the case of an average store owner and disregarding the stake of each one of the companies in the shopping malls (the data are 100% of the "GLA" - gross leasable area), it highlights the level and the trend presented in the last four years. It is worth mentioning that the year 2017 includes assumptions from Studio related to the sales data for the fourth quarter, which have not been released yet.

The financial health of the store owners of Tier 1 Companies was crucial for the results that these companies had in recent years. Despite the crisis, the companies were able to increase their rent prices, navigate with healthier levels of discounts and, especially, achieve a level of delinquency and delays significantly lower than those of Tier 2 companies. More than that, when we look at the scenario today, we believe they are even more prepared to take advantage of the upturn in the economy.

As for Tier 1, the increase in sales leads to an immediate increase of rent and, consequently, of revenue for shopping mall companies. In Tier 2, the increase in sales will initially mean a submergence of store owners who were operating with negative results, and only in a second phase of sales hikes will the mall operators be able to increase rent prices.

Going back to Iguatemi’s case, as mentioned, we decided to start our investment in the company in early 2016. At that moment, we saw a reasonably more attractive return than that of Multiplan. In addition, the company began a cycle of reduction in costs and expenses based on zero budget that ended up proving even more efficient than we initially thought based on our figures.

In the charts below, we tried to show the evolution of our Ebitda/GLA projections for 2017 for each of the listed companies. The bars on the left show the projection we had in early 2016; and the bars on the right show the projection that we currently have. It is worth noting that, for the Tier 2 companies, we already had conservative numbers that were reasonably below the market consensus at that time in 2016, hence our smaller disappointment with Aliansce.



Source: Studio investments

Although sales and rentals have been below our projections, Iguatemi managed to compensate for such frustration of revenue with cost savings and, most importantly, with low default on the part of store owners, which demonstrates a healthy level of profitability of its tenants during the last few years.

Another positive point in our opinion was the change in the attitude of the company in relation to capital allocation. After a few projects with questionable returns launched in the pre-crisis years, the company adopted a conservative stance in relation to new projects. Along these almost two years of investment in Iguatemi, the company put off the works of the two outlets which will be launched in 2018 and 2019 and opted for canceling two projects for new shopping malls. As we see a lot of value in the current portfolio of the company, we would like to see a careful future capital allocation with greater return than, or equal to, the legacy - something quite challenging in our opinion - and, therefore, we consider the decisions to hold investments in years of crisis as positive.

Despite the increase by 50% of the share price throughout 2017 and the fact that Iguatemi was the company that gained most value in the industry, we are still enjoying the investment. 2018 should be a year of recovery in sales by store owners and, as already discussed earlier, there will be room for reduction in rent discounts, positively impacting the company's revenue. Moreover, the current company' leveraging is in 3x Net Debt/EBITDA and the result of the company will benefit greatly from an average Selic rate that is much lower than that of 2017. Regarding the allocation of capital, we would like to see the company acquiring equity from partners in existing assets and being very selective in new projects.

Eletrobras

We have never invested in shares of Eletrobras, but became more optimistic about the company in late 2015, when ANEEL (National Energy Agency) was finishing the definition of values to be paid as indemnification for the transmission concessions renewed in 2012 with the controversial Provisional Measure 579. Such indemnifications are referred to as RBSE.

The figures represented approximately 3 times the market value of the company at the time. As we still had many questions regarding how such money would be used, due to the history of bad management that was aggravated during the PT government, we did not have a directional position in the company, but instead a long relative investment in the company's common shares and short investment in its preferred shares, given the common shares were traded at approximately 55% of the preferred shares value in October 2015, when we started the investment.[5].

With the change of government, and especially with the new management of the company in mid-2016, we became even more confident to create a directional position. At this point, common shares were already worth 80% of the preferred shares, another motivation to migrate to the new position.[6]

The first measure taken by the new management was the non-renewal of distribution concessions. These companies are six concessionaires in the North and Northeast of the country that generated annual losses of approximately BRL 2.0 Bn and still have extremely low indicators in terms of quality of the services provided to their customers. Days after such decision, Eletrobras reached its greatest market value in recent times, BRL 32.0 Bn, three times greater than when we made our first long & short investment in 2015.

In November 2016, a business master plan was announced, covering 2017 to 2021, with focus on financial discipline for the reduction of the Company's leverage. Among the main measures announced are the commitment toward investment control, divestment of distributors and organizational restructuring. Our investment theory was focused on the possibility of an operational improvement brought by a more efficient management. Even with all the limitation and inefficiency of state-owned enterprises, such a relevant change of direction after so many years of irresponsible management should bring important results. And we still had the comfort of having the company being "only" worth the RBSE value.

The year of 2017 began with a series of negative news, results below the expectations, delays in the implementation of the business plan, increased legal liabilities and, especially, the emergence of a huge and unexpected liability with the CCC/CDE that we will detail below.

In April we were surprised by an inspection by ANEEL that disallowed values that were subject to renegotiation entered into in 2014 and 2015 among the distributors of Eletrobras and the Energy Development Account (CDE). The main inconsistency in values was found in Amazonas Distribuidora de Energia, in which Eletrobras believed to be a creditor of approximately BRL 7.0 billion, while ANEEL concluded the need for compensation on the part of the Amazonas of approximately BRL 3.0 billion to CCC’s fund.

The distributors are creditors of the Fuel Consumption Account (CCC) due to the supply of public service for distribution of energy in the isolated system. In 2013, the CDE was responsible for the resources for the CCC expenditures. These credits served as collateral for the payment of debts with fuel suppliers.

In addition to the frustration of a "new" debt of BRL 10 billion - nearly one third of the market value of the company -, the judicialization of such dispute would bring difficulties for the privatization of the distributors, perhaps the main focus of the company’s restructuring process in 2017; and it

[5] Investment was only made in Studio 30 FIC FIA. Since Studio FIC FIA falls under BACEN Resolution 3,792, it cannot conduct short sales.

[6] Currently, all funds created a long position at Eletrobras.

would increase the likelihood that these controlled companies, which destroy billions in value, would return to Eletrobras.

With the difficulty of solving the problem with the distributors, the share price suffered greatly until August when the Ministry of Mining and Energy proposed the total privatization of the company in addition to the undoing of quotas of hydro plants, which the concessions were renewed in 2012. In practice, these concessions may sell their energy to the market if they are privatized. According to our calculations, the undoing of quotas would generate a value for the system of approximately BRL 35bn, which shall be divided among the Federal Government, consumers and Eletrobrás.

The privatization process shall occur based on a law bill which is expected to be voted in the first half of 2018. In practice, there should be a capital increase wherein the government must dilute its interest and pulverize the control of the company in the market, but maintaining the veto power through the golden share and limiting voting power to 10% of interest among shareholders. It is a solution for the appointment of senior executives based on political relations, a path for further adjustments in the swollen structure, which would hardly be possible to implement in a state-owned company. In addition, this was a solution widely adopted in the industry around the world. The nature of high intensity capital of the industry led large national and multinational companies to have their capital structure diluted. Regarding the possibility of cutting costs, when comparing the efficiency of Eletrobras with private operations for transmission and generation, we reach the possibility of cutting additional costs of at least BRL1.5 billion a year.

As a positive factor, during the year we highlighted some evolution in terms of voluntary dismissal with a payback of 11 months and expected annual savings of BRL 870 million - approximately 10% of the company's cost base -, a 30% reduction in managerial positions of the company and an organizational improvement with the transfer of 77 SPEs which amount to a book value of BRL 4.6 billion for the holding company which will lead to disinvestment in the future.

Even with repeated delays in the process of privatization of the distributors, the privatization should occur in 2018. It is still necessary to reach a viable solution to the total debt of these companies. It is likely that Eletrobras will absorb around BRL 20 billion in liabilities in case it wishes to privatize the companies and nothing changes in relation to the CCC/CDE liabilities, but even so, with the prospect of privatization of the company as a whole, the shares went back to their maximum value reached in 2016, BRL32 billion of market cap. With the end of the year and the window for the Congress to reach more controversial decisions closing, the company started to devalue again and, currently, its market cap is BRL 26 billion.

Despite the series of bad news that explain the performance of the year, we maintained the investment, believing in a positive and pragmatic agenda of the government, which will generate value to minority shareholders. In addition to an attractive valuation supported by the RBSE receivables, the company relies on the increase of the annual revenue of generation arising from a review of the value of quotas and also a minimum dividend that guarantees to the preferred shares a dividend yield of 9%.

It is worth highlighting that the average position that we had in the company was 2.3% in the year, a number we believe to be consistent with the high risk of the investment. The exercise in futurology is unrewarding, and considerably more difficult when overly dependent on political developments. In these cases, we usually have two approaches: refrain from investing as we are not fully capable of assigning a minimally credible value; or invest while demanding a safety margin and with small positions. We chose the second and it was not a good choice for 2017, which practically offset the gains we had in 2016 with the company.

Conclusion

2018 begins with important challenges. In addition to the traditional uncertainty of election years, we are experiencing a time of concerning lack of political leadership, which hinders the definition of candidates and, hence, the assessment of future scenarios. Still, we believe that the Brazilian society matured greatly in recent years: a significant portion already seems to understand the real issues to be dealt with and, finally, that there is no room for shortcuts or miraculous solutions.

Important changes and greater fiscal discipline must be implemented by any president to be elected. There is no more fiscal space for populist adventures and the recent impeachment shows that society will not tolerate a new economic crisis.

A ruler with economic speech with a more liberal bias and that attracts a qualified team is the best alternative for us. The implementation of this scenario would represent the beginning of a long and virtuous process of more sustainable development.

It is also worth mentioning that the coming years will rely on a large idle capacity to meet the demand for products and services, as a result of the deep recession that decreased the country's GDP by approximately 10%.

Just like in other moments of economic recovery in Brazil, we anticipate that this process will be accompanied by a strong operating leverage of companies, wherein an increase in revenues will impact companies´ profits in a very relevant manner.

In such "natural selection” process, typical of the contemporary capitalist system, we strongly believe that any publicly-held company trading in the stock exchange has full advantage against its smaller competitors, which have greater difficulty in accessing resources. They will certainly come out of the crisis stronger and the evidence will come in the form of profit and profitability margins.