



GNAM Investment Competition

**TOP INVESTMENT IDEA:  
KROTON EDUCACIONAL S/A (KROT3)**



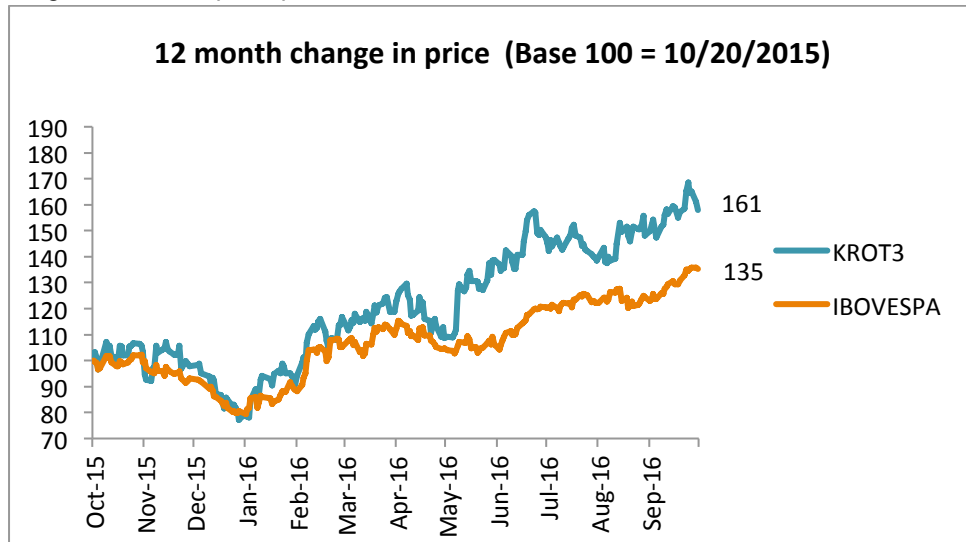
**Team Members:**

**Cristiane Santinho  
Elias Ferronato  
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Leonardo Lopes**



## KROT3 KROTON EDUCACIONAL S/A

Figure 1: Share price performance.



Source: BM&FBOVESPA.

### HIGHLIGHTS

**Business and industry** – In the last 6 years, Kroton’s total revenue grew more than 9 times and the total students in higher education grew more than 11 times, at a CAGR of 49.1% whilst the industry peers presented a 4%-CAGR. Kroton is proving its value and, even during a major crisis in Brazilian economy, the company continues to fulfill its guidance numbers.

**Competitive Positioning and Efficiency** – Its multi-brand strategy and capillarity offers a geographic advantage that increases the offered education service attractiveness to students. With few big players in the market, especially after the mergers with Anhanguera and Estacio, Kroton is investing in IT to reduce average costs per student and enhance its outputs considering high degree of operational leverage.

**Private Higher Education and Financing** – Despite of the reduction of the Public financing to students that affected Kroton demand, the Company developed strategies to sustain its grow.

**Valuation** – In early 2017 the true value projected to KROT3 is BRL 18.31, with an upside of 16% in comparison with the current price of BRL 15.73 (as of October, 2016).

## BUSINESS DESCRIPTION

In the last decade, a giant educational company emerged in Brazil. Kroton group has about 50 years old, but only in 2000 it joined the higher education sector and now this is its core business. In the last 3 years Kroton higher education student base had 26.3-CAGR, nowadays totalizing approx. 1 million students receiving services in traditional education (113 campi located in 19 Brazilian states) and distance learning with 910 units.

Kroton's growth strategy is heavily based on M&A deals, especially since 2010. The acquisition of IUNI Educacional expanded the graduate and undergraduate traditional education. In 2011, Kroton acquired Brazil's largest institution of distance education, Universidade Norte do Paraná (Unopar). In 2013, Kroton merged with Anhanguera, by the time the major educational player listed in BM&FBOVESPA. Finally, in 2016-2017, further growth size is expected to happen after the merger with Estacio Participações, the 2<sup>nd</sup> place in education ranking by marketshare. Then, considering its 1.6 million estimated students, Kroton will become the major higher education supplier in the world and will have 23% of the Brazilian market.

The success of M&A strategy and post-integration processes is presented in Table 1, with the historical evolution Kroton's key financial drivers showing its strong growth.

Table 1: Income statement and ratios.

INCOME STATEMENT [R\$m]	2013	2014	2015	SELECTIVE RATIOS	2013	2014	2015
Net Revenues	3,829	4,822	5,290	Gross Margin	51.7%	61.5%	68.1%
(-) COGS	(1,850)	(1,855)	(1,685)	Adjusted EBITDA Margin	27.8%	34.7%	41.4%
Gross Profit	1,979	2,967	3,605	Adjusted Net Margin	18.5%	28.0%	34.0%
EBIT	839	1,249	1,615	Net Debt	774	799	634
Adjusted EBITDA (BTG)	1,066	1,671	2,190	Net Debt / Adjusted EBITDA	-	0.5x	0.3x
Net Financial Result	(167)	(121)	(139)				
EBT	672	1,128	1,476				
Income Taxes	(28)	(17)	(68)				
Minority Interest	0	0	0				
Net Income (Accounting)	644	1,110	1,408				
EPS (Accounting)	0.40	0.69	0.87				

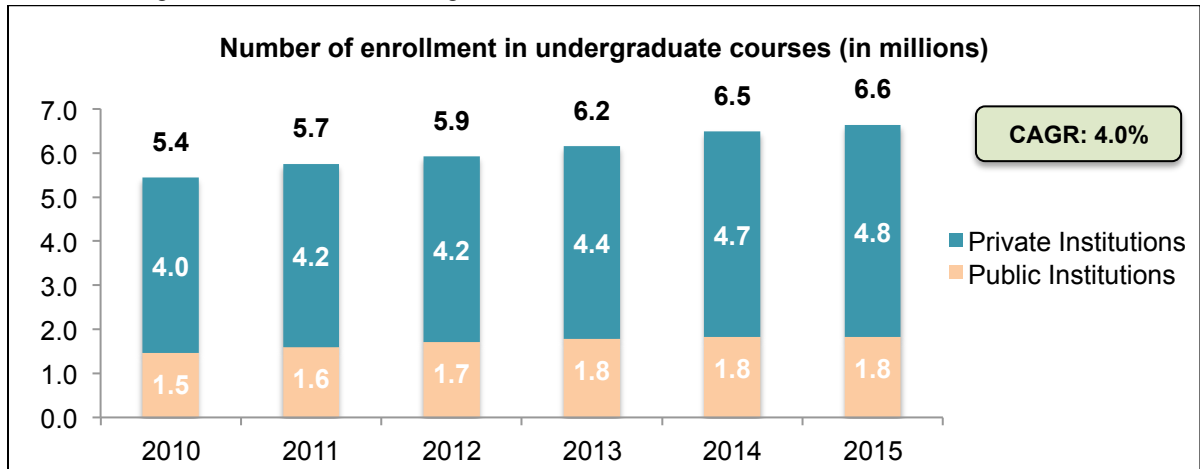
Source: Banco BTG Pactual S.A. - Equity Research.

## INDUSTRY OVERVIEW

Brazil is an emergent country that experienced a considerable reduction in poverty in the last decade, from 24.7% in 2001 to 7.4% in 2014, according to the World Bank. Low-income population has more barriers to attend school, especially higher education. In order to increase undergraduate and graduate supply education, in 1996 Congress passed the Law of Guidelines and Bases of National Education, allowing a new thriving industry whose major players are being consolidated as part of Kroton. Figure 2 presents the evolution of traditional enrollment in both public and

private institutions since 2010, with a CAGR of 4.0%. If we consider just the segment of private schools, which is Kroton's, the CAGR was a little bit lower, of 3.8%.

Figure 2: Traditional undergraduate education market.

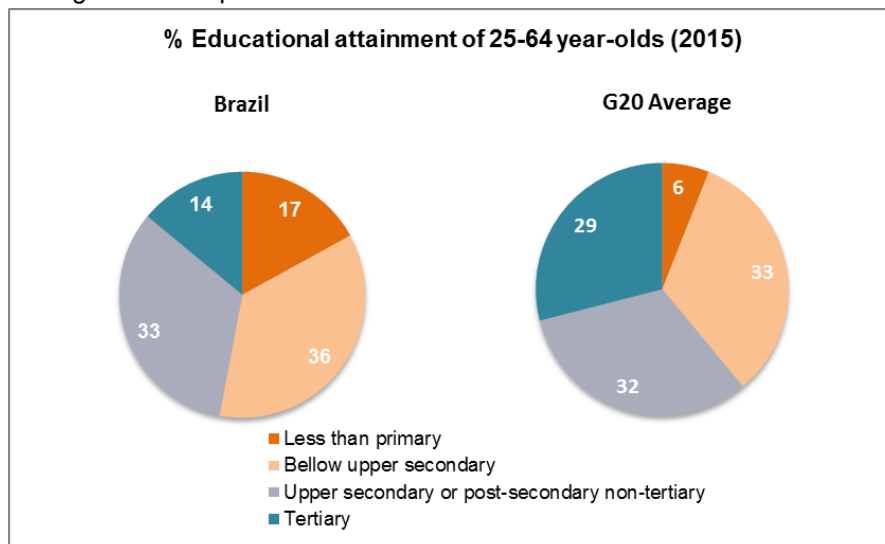


Source: INEP - National Institute of Educational Studies Anísio Teixeira.

Brazil has important differences between public and private educational institutions. Both undergraduate and graduate degree courses offered by public institutions are free of charge. However, due to the high demand and competitive application process, private universities end up being the option for many students, especially for those who attended public elementary schools.

Despite the remarkable increase in the past years, Brazil is still way behind in terms of higher education levels when compared to other countries, as show in Figure 3.

Figure 3: Composition of educational attainment.



Source: OECD - Education at a Glance.












Today Brazil has only 14% of its population between 25 and 64 years old with tertiary education degree (undergraduate or above), a very low index when compared to the average of G20 member countries, around 29%. At the other extreme, 17% of the same population did not even completed primary education, a

level almost 3x the G20 average. This shows that there is a huge educational gap to be fulfilled by Kroton and its competitors.

## COMPETITIVE POSITIONING

Competition in higher education sector is one of the most relevant strategic concerns, considering that it can generate both affect market share and margins, leading to reduced profits. But we consider that is a minor threat, after our SWOT analysis. Kroton has a multi-brand regional strategy, which maintain a closer relationship with the local students and allows dealing with competitors more effectively. Figure 4 shows the brands of Kroton group according to its amplitude and targeted market.

Figure 4: Kroton's multi-brand composition.

Product	Strong regional brands*	National brands*
On-Campus Undergraduate On-Campus Graduate Vocational Programs	    	 
Distance Learning Undergraduate Distance Learning Graduate		 
Primary and Secondary Education		
Preparatory Courses		

Source: Company's Data.

By being present in more than 74 cities with 113 traditional campi and 910 distance learning units in 635 cities, Kroton is highly disperse in the country. Having a strong national brand, students may be more attracted to Kroton than to local competitors.

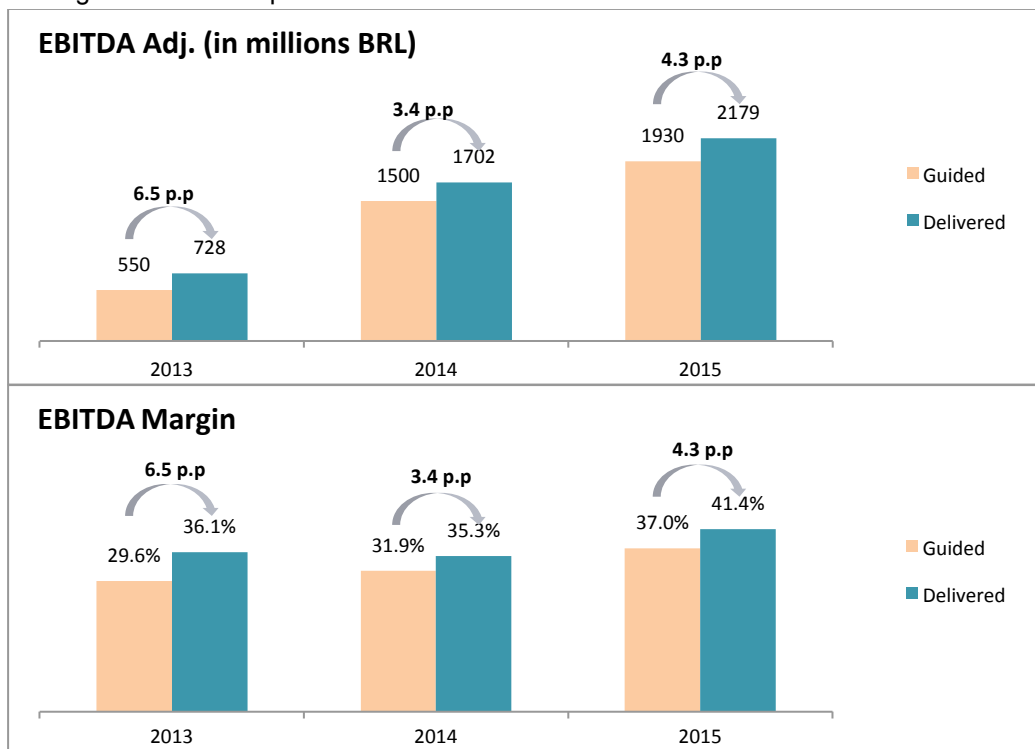
Higher education has many entry barriers. Years of bureaucratic governmental procedures and huge volume of investments are necessary to begin a higher education business. Physical structures, professors' wages and retention, administrative costs and the demand size uncertainty are some obstacles that reduce the attractiveness of the market. Furthermore, in Brazil only institutions approved by MEC (Ministry of Education and Culture) can provide this service, so substitute courses (online platforms as Coursera, edX, and others) may not be substitutes as formal education.

Another important aspect of the higher education business is student retention throughout the course. Kroton implemented in 2014 the first project to enhance retention, and a 20% increase was obtained.

## EFFICIENCY EFFORTS

In the last years M&A strategy reduced players in the market and as result, Kroton is currently the major player. Those deals produced considerable economies of scale by the increase of enrollments. A clear example of Kroton's good performance is EBITDA margin evolution, which in three consecutive years outperforms the company's guidance, as shown in Figure 5.

Figure 5: EBITDA performance.



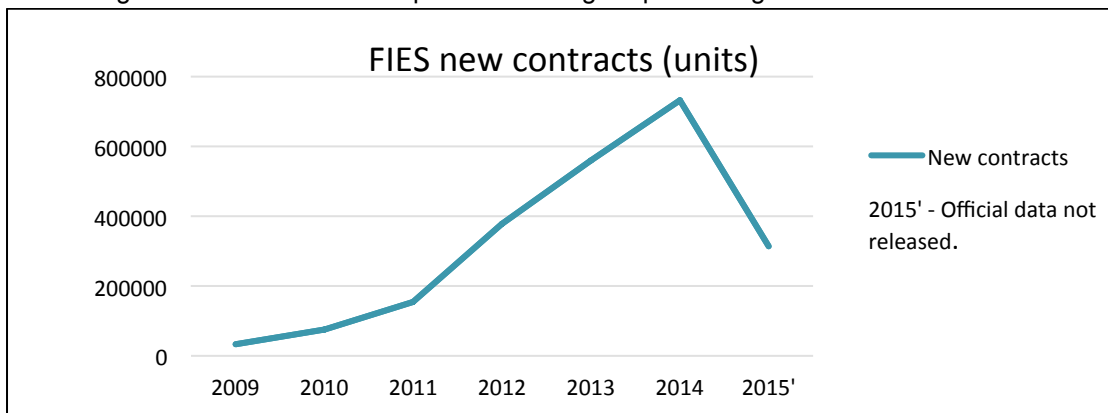
Source: Credit Suisse – Equity Research.

The merger with Anhanguera produced a 14%-reduction in SG&A expenses and a 17% reduction in headcount. Besides, distance learning is growing fast and promotes big operational leverage, since thousands of students pay for an almost fixed structure. For example, more than 42% of the courses are offered simultaneously to students in different majors.

## PRIVATE HIGHER EDUCATION AND FINANCING

Considering the bad macroeconomic scenario in Brazil since 2014, Brazilian government reduced the financing of undergraduate education program, called FIES. Figure 6 presents the evolution of new financing contracts through the years, pointing a massive reduction in 2015.

Figure 6: New contracts of public financing for private higher education.



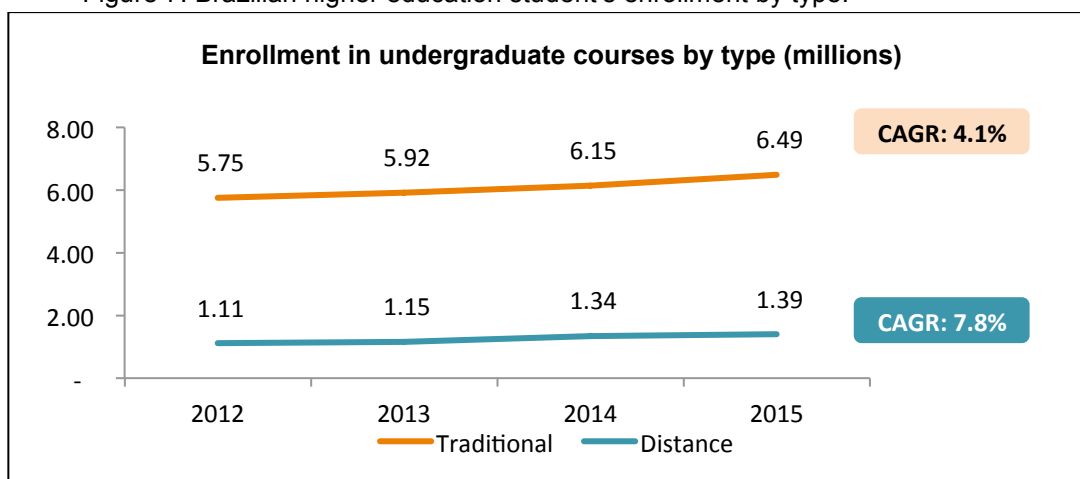
Source: MEC – Ministry of Education. 2015' – Folha de São Paulo.

Although this tragic scenario seems devastating, Kroton was not so affected. Its good position in the market is clear in the total enrollments by new students in undergraduate and graduate courses which increased by 0.8% when compared to 1Q2015. In order to provide a solution to the dependence on FIES public financing in an instable economic period, a private financing named PEP started in 2015. This could provide an alternative to the financing threat, minimizing the risk exposure to FIES program.

## DISTANCE LEARNING

Distance learning is a promising Kroton business considering Brazil's extensive territorial dimension and social inequality. This type of education can be a solution for lower income population, by offering more affordable tuitions and eliminating the commuting problem. The students are taking the opportunity provided by low cost education, as seen in the Figure 7, in which distance learning had almost double CAGR than traditional learning during five years.

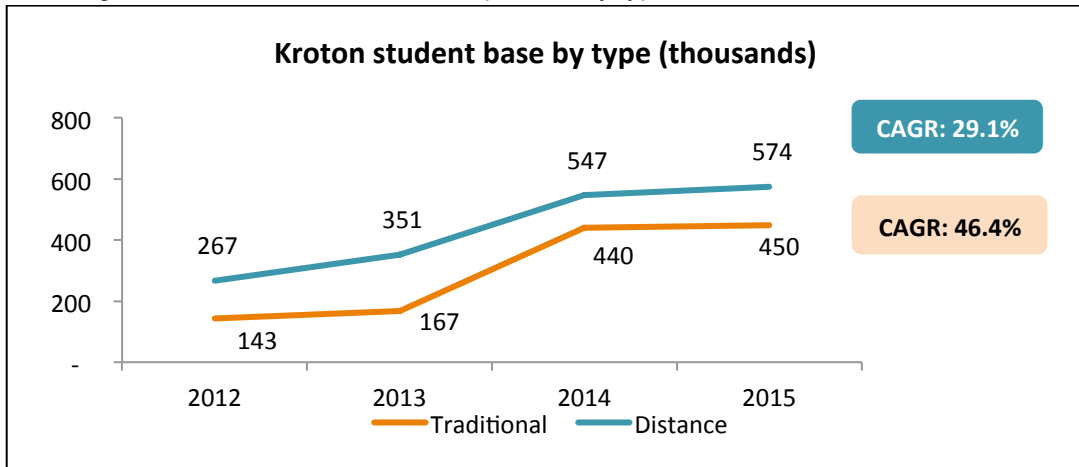
Figure 7: Brazilian higher education student's enrollment by type.



Source: INEP - National Institute of Educational Studies Anísio Teixeira.

In the same period Kroton outperformed the CAGR market growth in both types of education, as seen in Figure 8.

Figure 8: Kroton student base composition by type thousands.

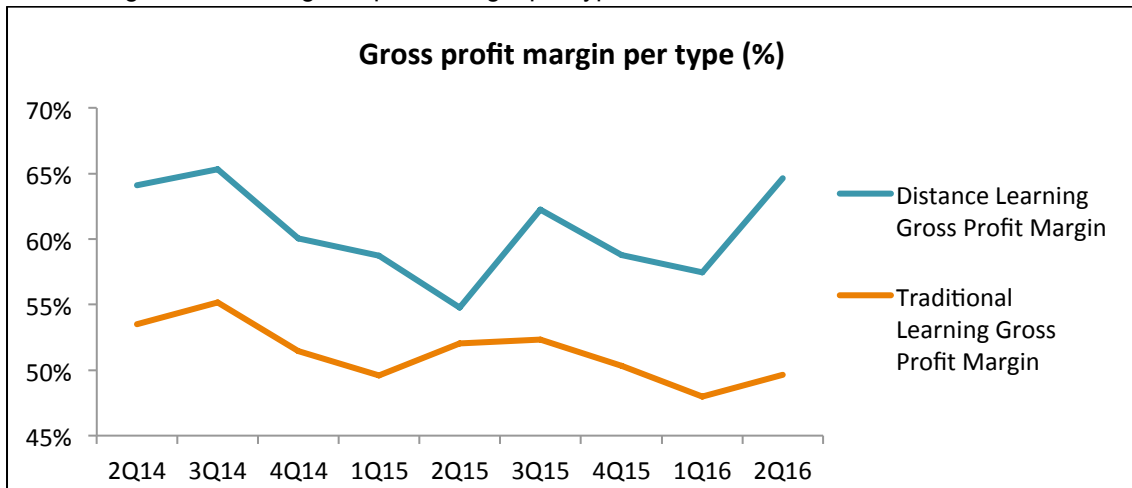


Source: Company's Data.

The traditional CAGR outperformed the market in more than 10x and the distance learning CAGR was almost 4x the market achieving more than 40% of the Brazilian distance learning market share.

The distance learning market is very strategic because its leverage potential with lower variable costs per student. In the last two years the Brazilian crisis imposed difficulties to increase student base and Kroton's distance learning profit margin was very superior, as seen in the Figure 9.

Figure 9: Kroton gross profit margin per type.



Source: Company's Data.



## VALUATION

We believe Kroton fair value for early 2017 is BRL 18.31, with an upside of 16% in comparison with the current value of BRL 15.73. The Valuation was made using the Discounted Cash Flow Model (DCF), considering the following assumptions.

CAPM Assumptions	
Risk-Free Rate	3.50%
Brazil Risk	2.50%
Equity Premium	5.00%
Company's Beta	1.2
<b>Cost of Equity</b>	<b>12.0%</b>

**Number of students:** Kroton will have a moderated organic increase in student base of 1% per year starting in 2017, following the expected growth in education market. We considered two types of business here, traditional and distance learning, considering a 60% weight of distance learning in revenues.

WACC Assumptions	
D/E Ratio	3.96%
Cost of Debt	12.50%
Cost of Equity	12.00%
Tax Rate	6%
<b>WACC</b>	<b>12.0%</b>

**Gross Income:** We projected both the Net Revenue and Learning Costs using an expected net ticket (historical prices adjusted by inflation). We multiply this ticket by the number of students for each business (traditional and distance).

Other Assumptions	
Tax	6%
Inflation rate	5.0%
Perpetuity Growth	4.0%
Student Organic Growth rate	1%
% Distance Learning	60%
Capex / New Student (BLR M)	0.011

**Capex:** We estimated an average Capex investment needed to acquire each new student of BRL 11,000, considering historical data.

**Net Working Capital:** We considered the Net Working Capital for the following years as the same percentage of the Net Revenue in 2015.

Target Price (BLR M) and upside	
Standalone NPV (BLR M)	25,880
(+) Net Present Value by Estacio Acquisition	3,900
Equity Value	29,780
Number of Shares (M)	1,626
<b>Early 2017 Target Price:</b>	<b>18.31</b>
Current Price:	15.73
<b>Upside:</b>	<b>16%</b>

**Weighted average cost of capital:** The cost of equity is 12.0%, considering 3.5% risk-free rate, 2.5% country risk premium for Brazil, 5% equity risk premium and a beta of 1.2 for Kroton. Due to public incentives, Kroton pays very low tax rate (~6%), having for this reason only 3.96% of Debt / Equity ratio. This way, even considering a 12.5% of Cost of Debt, the WACC remains in 12.0%.

**Perpetuity:** We considered a 4% inflation starting at 2021 as the perpetuity growth rate.

**Equity Value:** Calculated by the NPV of standalone projected cashflow plus a BRL 3.9 bn of expected synergy NPV captured after concluding the acquisition of Estacio in 2017. Kroton's margins are the highest among its peers, indicating that Estacio's results may be improved after merger, not to mention the operational synergies to do cost reduction.

Student Base Projection	2015	2016E	2017E	2018E	2019E	2020E	2021E
Regular Learning Students	449,661.0	438,098	442,907	446,931	450,996	455,101	459,247
Distance Learning Students	573,955.0	541,575	563,166	569,202	575,299	581,457	587,676
<b>Total Student Base</b>	<b>1,023,616</b>	<b>979,673</b>	<b>1,006,073</b>	<b>1,016,134</b>	<b>1,026,295</b>	<b>1,036,558</b>	<b>1,046,924</b>

Kroton Valuation	2015	2016E	2017E	2018E	2019E	2020E	2012
Regular Learning Net Revenue	4,082.0	4,175.9	4,432.8	4,696.7	4,976.4	5,272.8	5,586.9
(+) Distance Learning Net Revenue	1,183.2	1,172.3	1,280.0	1,358.4	1,441.6	1,529.9	1,623.6
<b>Net Revenue</b>	<b>5,265.2</b>	<b>5,348.2</b>	<b>5,712.8</b>	<b>6,055.1</b>	<b>6,418.0</b>	<b>6,802.7</b>	<b>7,210.4</b>
(-) Regular Learning Costs	-1,433.4	-1,466.4	-1,556.6	-1,649.3	-1,747.5	-1,851.6	-1,961.9
(-) Distance Learning Costs	-251.8	-249.5	-272.4	-289.1	-306.8	-325.5	-345.5
<b>Gross Income</b>	<b>3,580.0</b>	<b>3,632.4</b>	<b>3,883.8</b>	<b>4,116.8</b>	<b>4,363.8</b>	<b>4,625.6</b>	<b>4,903.1</b>
(-) Operational Expenses	-1,401.2	-1,408.1	-1,518.4	-1,610.3	-1,707.7	-1,811.0	-1,920.6
<b>EBITDA</b>	<b>2,178.8</b>	<b>2,224.2</b>	<b>2,365.4</b>	<b>2,506.5</b>	<b>2,656.1</b>	<b>2,814.6</b>	<b>2,982.5</b>
(-) Depreciatio / Amortization	-379.8	-379.8	-381.7	-378.8	-370.3	-362.1	-354.2
<b>EBIT</b>	<b>1,799.0</b>	<b>1,844.4</b>	<b>1,983.7</b>	<b>2,127.7</b>	<b>2,285.8</b>	<b>2,452.5</b>	<b>2,628.4</b>
(-) Tax	-107.9	-110.7	-119.0	-127.7	-137.1	-147.1	-157.7
(+) Depreciatio / Amortization	379.8	379.8	381.7	378.8	370.3	362.1	354.2
<b>OCF</b>	<b>2,070.9</b>	<b>2,113.5</b>	<b>2,246.4</b>	<b>2,378.9</b>	<b>2,518.9</b>	<b>2,667.4</b>	<b>2,824.8</b>
(-) Change in Net Working Capital	-6.6	-7.4	-32.4	-30.4	-32.3	-34.2	-36.3
(-) CAPEX (growth / minor acq.)	-439.0	-439.0	-290	-111	-112	-113	-114
<b>FCFF</b>	<b>1,625.2</b>	<b>1,667.2</b>	<b>1,923.6</b>	<b>2,237.8</b>	<b>2,374.9</b>	<b>2,520.3</b>	<b>2,674.6</b>
<b>Terminal Value</b>							<b>33,473.6</b>
<b>FCFF + Terminal Value</b>	<b>1,625.2</b>	<b>1,667.2</b>	<b>1,923.6</b>	<b>2,237.8</b>	<b>2,374.9</b>	<b>2,520.3</b>	<b>36,148.2</b>
WACC:		11.99%					
Standalone Net Present Value		25,880					
(+) Net Present Value by Estacio Acquisition:		3,900					
Equity Value		29,780					
Number of Shares (M):		1626					
<b>Early 2017 Target Price:</b>		<b>18.31</b>					
Current Price:		15.73					
<b>Upside:</b>		<b>16%</b>					

Sensitivity Analysis - Target Price		Perpetuity Growth (%) - Nominal BRL				
		3.0%	3.5%	4.0%	4.5%	5.0%
WACC (%) - Nominal BRL	10.99%	19.1	19.8	20.6	21.6	22.7
	11.49%	18.1	18.7	19.4	20.2	21.2
	11.99%	17.2	17.7	<b>18.3</b>	19.0	19.8
	12.49%	16.4	16.8	17.4	18.0	18.6
	12.99%	15.6	16.0	16.5	17.0	17.6

Sensitivity Analysis - Upside		Perpetuity Growth (%) - Nominal BRL				
		3.0%	3.5%	4.0%	4.5%	5.0%
WACC (%) - Nominal BRL	10.99%	21%	26%	31%	37%	45%
	11.49%	15%	19%	23%	29%	35%
	11.99%	9%	13%	<b>16%</b>	21%	26%
	12.49%	4%	7%	10%	14%	18%
	12.99%	-1%	2%	5%	8%	12%



## Additional Investment Stocks Portfolio

**ambev**



**Team Members:**

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### **Ambev (ABEV3)**

Brazilian brewery Ambev was established in 1999 from the merger of the centuries-old Cervejaria Brahma and Companhia Antarctica. It is the largest brewery in the world and especially strong in Latin America. It is present in 19 countries and it has 32 breweries and two malting plants in Brazil, 30 beverage brands, 35,000 employees in Brazil and 100 distribution centers. Besides beer, the company also produces and sells soft drinks, teas, sports and energy drinks and juices. Ambev's net earnings were \$3.85 bn, with a profit margin of 26.6% for the full year in 2015, down from 31.7% in 2014. Despite this downward trend, it is expected a 10.7% EPS growth in 2016. Ambev is part of Anheuser-Busch Inbev, known as AB Inbev, which was born of the merger between Ambev with the Belgian Anheuser-Busch, that has more than two hundred beverage brands. Due to all those attributes, Ambev is among the most profitable breweries in the world and its shares are considered a good investment with stable positive results.

### **Itaú Unibanco Holding S.A. (ITUB4)**

Itaú is one of the biggest Brazilian banks. It was established in 1924 and since then it has growing in the bank industry by increasing its portfolios and acquiring other banks. Nowadays, Itaú has 59 million clients through a network of more than 5,154 branches and nearly 26,588 ATMs across the country and abroad. It also provides traditional corporate banking services as well as investment banking operations and M&A support. Itaú works with approximately 700 institutional clients in Europe, United States and Asia. Besides this, it is a performance leader in Brazil and it is known by its diversity of products and services and intensive use of technology. Itaú has 96,460 employees in Brazil and abroad and its main strengths is a combination of four elements: family ownership ensuring long-term view, professional management team, broad shareholder base (free float of 53.3% with strong foreign investor presence) and strong corporate governance. For the quarter ended in June 2016, Itaú had total assets of BRL 1,395.9 bn, total loans of BRL 573.0 bn, stockholders' equity of BRL 110.6 bn and its rating is Moody's Ba3 and Fitch BB+. Itaú's recurring net income in 2015 was BRL 23.8 bn and, in the 2Q16, BRL 5.6 bn.

### **BB Seguridade Participações S.A. (BBSE3)**

BB Seguridade Participações S/A, is a leading player in the Brazilian insurance market. It is a spin off of Banco do Brasil established in 2012 with the purpose of concentrating its partnerships with private players in insurance, pension plans and premium bonds companies. The company has partnerships with Spanish group Mapfre, operating in the areas of rural, housing, auto and P&C segment and with Principal Financial Group, responsible for the pension plan solutions. Besides this, it operates in the market of capitalization bonds, dental plans and reinsurance market with others partnerships. BB Seguridade is the fastest-growing company in the Brazilian insurance industry in terms of volume of premia and contributions, according to Brazilian Superintendence of Private Insurance (SUSEP), and occupies a prominent position in each of its segments of operation. The main company's advantage is the possibility to access the Banco do Brasil's distribution channels, that includes 94% of Brazilian municipalities, comprising of 5.4 thousand branches, 13.8 thousand points of service, 44.3 thousand ATMs, 28.6 thousand shared self-service terminals and 17.4 thousand points of bank correspondents. In 2015, its net income reaches BRL 4.2 bn and its total assets of BRL 11,495.6 bn. The stockholders' equity was BRL 7,580.7 bn.

### **Companhia Siderúrgica Nacional (CSNA3)**

CSN is a Brazilian steel mill, with multinational operations in the steel, mining, cement, logistics and energy segments. It operates throughout the steel chain from the production to the final sale. Its products are present in various sectors as the automotive, civil construction, packaging and others. The company employs over 20,000 people and it is known as the one with the lowest production costs in the global steel sector. In 2015, the company reached the net revenue of BRL 15.3 bn and shareholders' equity of BRL 7.7 bn. It is expected a better performance in the future company's revenue and the earnings due to the forecasts of the Brazilian economy recovery and an increase in domestic steel consumption.