CONNECTING PEOPLE,
IDEAS AND CAPITAL

ARTICA
ASSET MANAGEMENT

INVESTING IN QUALITY COMPANIES

August, 2020

Dear investors,

In our conversations and presentations to investors, we always emphasize the importance of investing in quality companies with a long-term view.

In this letter, we will discuss in a little more detail the reasons underlying this view.

We begin the letter with a simple example: let us suppose that it is 2010 and we have two investment options, both in companies of similar size operating in the same segment. The companies have the following characteristics:

- Company A ("expensive" and profitable): P/E multiple of 36x and historical return on equity (ROE) of 25%[1][2]
- Company B ("cheap" and with average profitability): P/E multiple of 23x and historical ROE of 14%

Which company would you invest in?

Company A costs 50% more than company B when comparing the multiple based on the previous year's earnings. Is this "premium" worth paying?

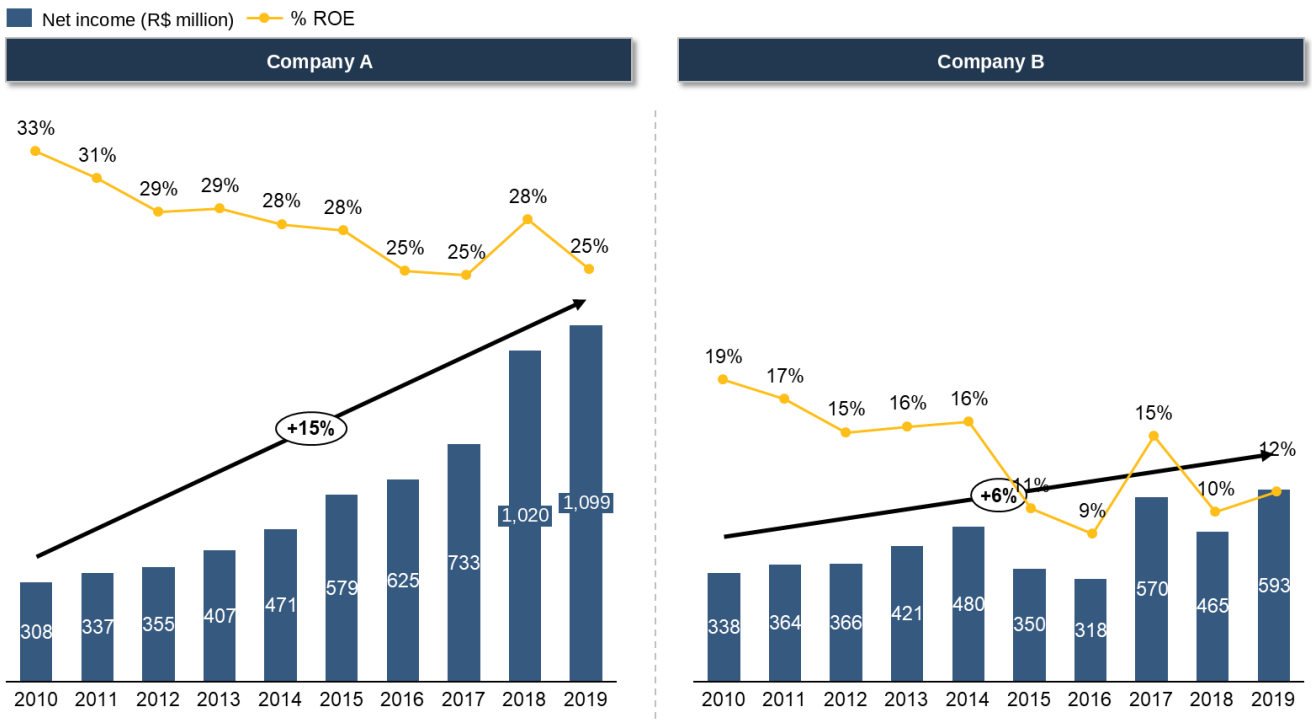
In the following years, both companies managed to keep their ROE at a level similar to their historical average and to grow their net income. Because of its higher profitability, company A was able to grow its earnings at a rate of 15% per year, while company B grew its earnings at a rate of 6% per year.

[1] P/E (Price/Earnings) is a multiple widely used in the financial markets. It measures a company's market value relative to its annual net income. As a rule, the higher the multiple, the more "expensive" the company tends to be.

[2] ROE (*Return on Equity*) is calculated by dividing a company's net income by its shareholders' equity. ROE is a measure of the company's financial performance, as it indicates how well the company uses its resources to generate profit for shareholders. The higher the profit for a given amount of shareholders' equity, the higher the company's ROE.

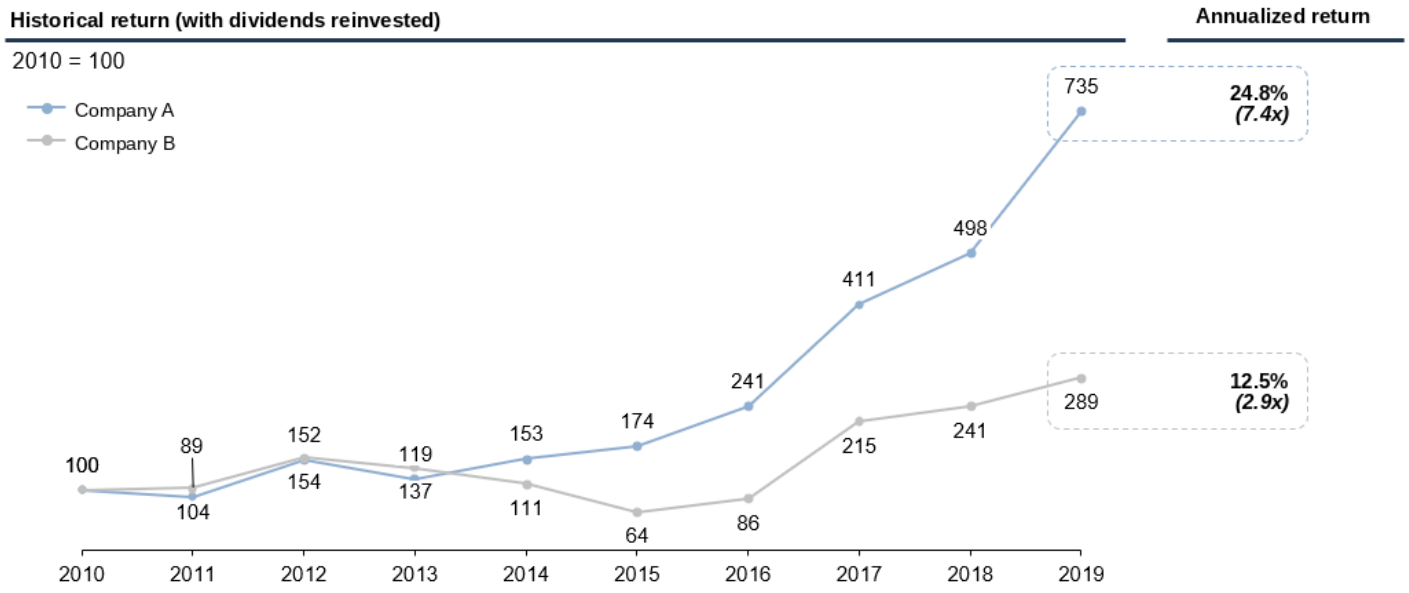
The net income and ROE of the two companies are illustrated in the chart below:

Chart 1 – Net income and ROE of companies A and B



Even though they started from a similar level, by the end of the period company A's earnings were almost double those of company B. Company A's performance stood out especially during the 2015-17 crisis. As one would expect, company A's stock performed far better than company B's stock, as can be seen in the chart below:

Chart 2 – Historical returns of companies A and B



This example comes from a real case of two companies in the same sector. Which are they?

- Company A: Renner
- Company B: Guararapes (Riachuelo brand)[3]

Both are good, well-managed companies, and both outperformed the Ibovespa over the period analyzed. Over the period, however, Renner's performance was far superior to that of Guararapes.

This performance occurred because Renner was able to reinvest capital at a very high rate of return over a long period, a characteristic that only the best businesses offer. To make the relationship between growth and profitability clear: in the example above, both companies had net income of close to R$300 million in 2010. If both used 100% of these earnings to reinvest in their operations, Guararapes' R$300 million in earnings would earn a return of 14% per year (that is, the company's ROE) and would grow to R$342 million in one year. In Renner's case, the R$300 million in earnings would earn 25% per year and would grow to R$375 million (earnings 10% higher than those of Guararapes). Because of the compounding nature of returns, the difference in earnings tends to widen over time and, at this pace, Renner's earnings would be 130% higher than those of Guararapes in 10 years, more than justifying the 50% higher price paid at the outset. This growth trend occurs if the companies reinvest 100% of their earnings in their operations at the same historical rates of return. In reality, however, not all of the earnings were reinvested (a significant portion was paid out as dividends), and the growth achieved was somewhat lower than the theoretical example suggests.

Growing in this way, by reinvesting the capital generated by the success of the business itself, is the healthiest and safest way for a company to grow and create value for its shareholders. Not that it is the only way: there are cases of companies that used external capital to invest in growth and went years without profitability, restoring it only after achieving a leadership position in their market. The problem with these cases is that, while some have worked out very well (such as Amazon), others have gone very badly (such as Netshoes), and while these companies are sacrificing their results in order to grow, it is difficult to judge, from a distance, which ones will be the winners.

We also focus on profitability because, in the long run, the rate of return on an investment in a company tends toward the ROE of its business. The analysis below illustrates two theoretical scenarios:

- Company C: operates with an ROE of 20% per year, reinvests 100% of its earnings at this rate and trades at a 30% premium to the sector's average P/E multiple
- Company D: operates with an ROE of 5% per year, reinvests 100% of its earnings at this rate and trades at a 30% discount to the sector's average P/E multiple

Assuming an investment were made in these companies and the share price then immediately converged to the sector multiple, what would the return on this investment be over time?

The chart below answers this question. For company D, the return would be excellent in the short term, but it would fall over the years. For company C, the opposite would be observed: the initial return would be low, but

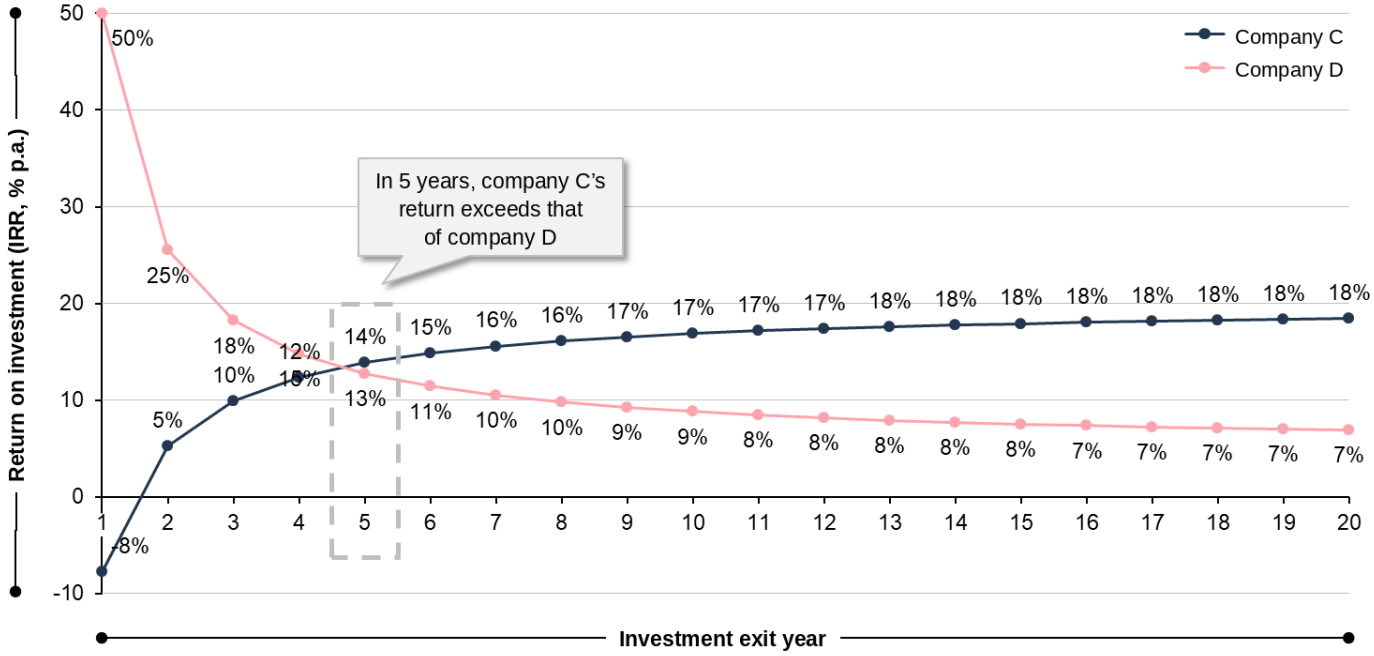
[3] In the analysis above, Guararapes' net income and ROE in 2018 were adjusted to exclude non-recurring tax gains.

it would increase over time, overtaking company D's return in year 5 and converging toward its natural return level of 20% in the long run.

The chart offers two important lessons: (i) even when paying a "high" price for company C, over time the company is able to generate enough value to make up for the pricing "mistake" of the initial investment; (ii) time is the friend of the great company and the enemy of the mediocre one.

> *"Time is the friend of the wonderful company, the enemy of the mediocre."*
>
> **Warren Buffett**

Chart 3 – Theoretical return of stock C (high ROE, "expensive") vs. stock D (low ROE, "cheap")

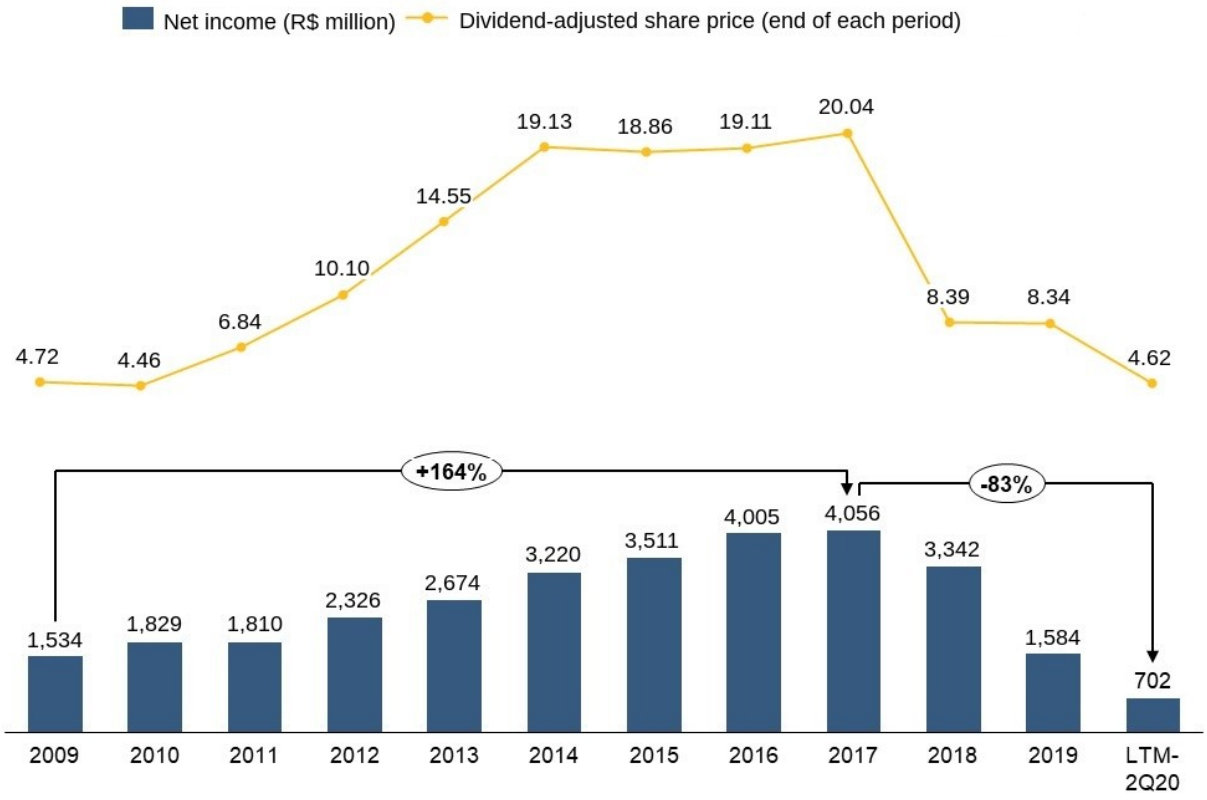


An important caveat: it is not enough to evaluate a company's track record and assume that the historical ROE observed will be maintained in the future. When a company starts making a lot of money in a segment or product, competitors quickly notice the opportunity and seek to enter that market. As competition increases, prices and margins tend to fall, leading to convergence toward the sector's average cost of capital. Companies that do not have a privileged and sustainable competitive position will see their returns decline, and the performance of their stocks will follow.

Cielo is a recent case that illustrates this point. Until 2016, the company was growing at a strong pace, always maintaining excellent ROE levels, and it was one of the stock market's "darlings." For a long time, the payments sector was dominated by Cielo and Rede, which together had around 90% of the market. The companies had a monopoly over the processing of the main card brands: Visa, Amex and Elo were exclusive to Cielo, while Mastercard and Hiper were exclusive to Rede. Many merchants were forced to keep both companies' card machines in their stores, which allowed them to charge high fees. However, with the deregulation of the sector (which began in 2010 and intensified in 2016), this monopoly was eliminated, allowing new players to enter the sector and undermining the competitive position of the incumbents.

The result was a sharp drop in Cielo's earnings and ROE, which was mirrored by its stock market performance. The chart below shows Cielo's historical results:

Chart 4 – Cielo's historical net income and share price performance



To sustain value creation for shareholders over the long term, companies must be able to maintain their competitive advantages, which will translate into superior returns.

Predicting which companies will achieve this goal is a very difficult task. For this reason, we go into great depth to understand the companies' competitive differentiators, the disruption risks to which they are exposed, and whether the management team is good enough to keep the company ahead of the competition.

Identifying good companies is only part of the job. The other part is having the patience and discipline to invest in them at the right price. Good companies are available to be bought in the market every day, usually at a price far above what we would like to pay.

Fund characteristics

ARCADIA FUNDO DE INVESTIMENTO DE AÇÕES (the "Fund"), managed by Arcádia Participações e Gestão de Recursos Ltda., is an equity investment fund regulated by CVM Instruction 555/2014.

Target audience

The Fund is intended exclusively for qualified investors (under CVM Instruction 554/2015) seeking long-term-focused returns.

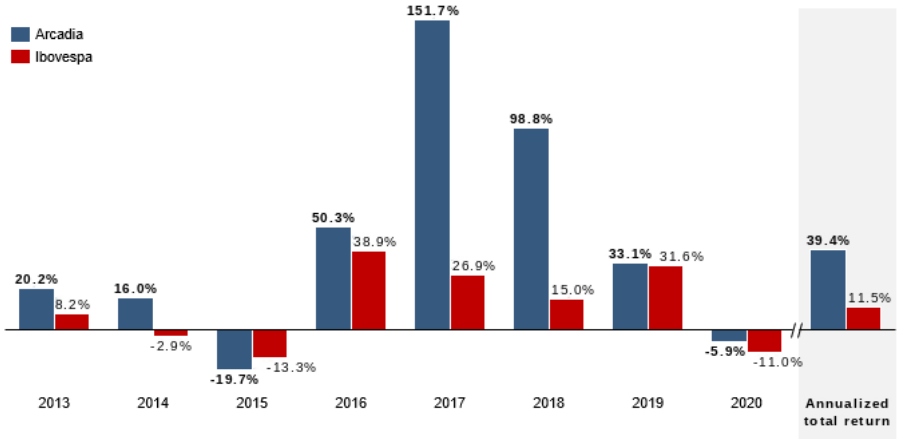
Fund objective

The Fund's objective is to provide its unitholders, over the medium and long term, with capital gains by investing its resources primarily in the stock market, without pursuing a high correlation with any specific equity index available.

ANBIMA classification	Equities (Free)
Manager	Arcádia Participações e Gestão de Recursos Ltda.
Administrator / custodian	BTG Pactual Serviços Financeiros S.A. DTVM
Minimum investment	R$100.0 thousand
Additional investment	R$1.0 thousand
Minimum balance	R$50.0 thousand
Management fee	2% p.a.
Performance fee	20% of excess return over the Ibovespa (high-water mark)
Subscription conversion	D + 1 (business day)
Redemption conversion	D + 89 (calendar days)
Settlement	D + 1 (after conversion)
Taxation (income tax)	15% of gains upon redemption (no come-cotas)

Current net assets	R$86.3 million
12-month average net assets	R$61.8 million
Cumulative return	954.8%
12-month return	25.3%
36-month return	263.3%
Fund assets held by partners	59.7%

Annual return



Monthly return

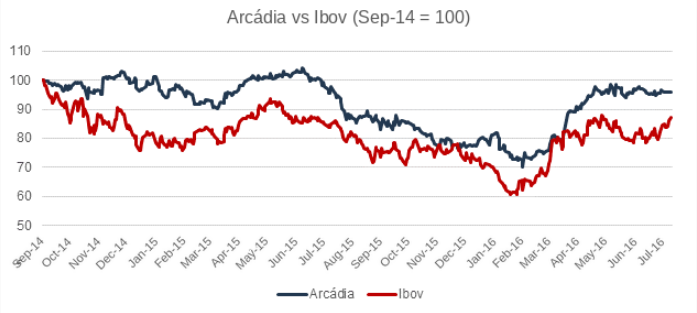
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	Cumulative
2013	Arcádia	-	-	-	-	-	2.2%	6.7%	(5.2%)	8.8%	8.3%	(1.0%)	(0.3%)	20.2%	20.2%
	Ibovespa	-	-	-	-	-	(11.3%)	1.6%	3.7%	4.7%	3.7%	(3.3%)	(1.9%)	8.2%	8.2%
2014	Arcádia	(4.5%)	2.9%	2.2%	(0.9%)	4.2%	7.7%	1.2%	0.9%	(1.2%)	(1.2%)	6.2%	(1.7%)	16.0%	39.4%
	Ibovespa	(7.5%)	(1.1%)	7.1%	2.4%	(0.8%)	3.8%	5.0%	9.8%	(11.7%)	1.0%	0.2%	(8.6%)	(2.9%)	5.0%
2015	Arcádia	(4.4%)	(3.6%)	3.4%	5.1%	1.3%	(4.2%)	(10.6%)	(2.9%)	0.2%	(8.7%)	0.5%	3.5%	(19.7%)	12.0%
	Ibovespa	(6.2%)	10.0%	(0.8%)	9.9%	(6.2%)	0.6%	(4.2%)	(8.3%)	(3.4%)	1.8%	(1.6%)	(3.9%)	(13.3%)	(8.9%)
2016	Arcádia	(9.7%)	2.8%	20.9%	4.7%	1.8%	(0.7%)	16.1%	7.8%	(0.3%)	(1.0%)	1.6%	0.6%	50.3%	68.3%
	Ibovespa	(6.8%)	5.9%	17.0%	7.7%	(10.1%)	6.3%	11.2%	1.0%	0.8%	11.2%	(4.7%)	(2.7%)	38.9%	26.5%
2017	Arcádia	2.0%	3.7%	1.4%	2.6%	20.4%	1.7%	27.9%	9.4%	8.7%	8.9%	14.1%	(1.2%)	151.7%	323.7%
	Ibovespa	7.4%	3.1%	(2.5%)	0.7%	(4.1%)	0.3%	4.8%	7.5%	4.9%	0.0%	(3.2%)	6.2%	26.9%	60.5%
2018	Arcádia	22.1%	23.9%	0.8%	2.4%	29.7%	(8.4%)	7.9%	5.1%	(7.8%)	6.5%	(4.7%)	0.9%	98.8%	742.3%
	Ibovespa	11.1%	0.5%	0.0%	0.9%	(10.9%)	(5.2%)	8.9%	(3.2%)	3.5%	10.2%	2.4%	(1.8%)	15.0%	84.6%
2019	Arcádia	10.7%	(1.7%)	(3.4%)	(1.2%)	(5.7%)	(1.5%)	3.6%	1.0%	(7.8%)	14.0%	0.5%	25.0%	33.1%	1021.5%
	Ibovespa	10.8%	(1.9%)	(0.2%)	1.0%	0.7%	4.1%	0.8%	(0.7%)	3.6%	2.4%	1.0%	6.9%	31.6%	142.9%
2020	Arcádia	2.7%	(4.2%)	(24.8%)	8.0%	0.2%	6.7%	9.9%	-	-	-	-	-	(5.9%)	954.8%
	Ibovespa	(1.6%)	(8.4%)	(29.9%)	10.3%	8.6%	8.8%	8.3%	-	-	-	-	-	(11.0%)	116.2%

* Arcádia began on June 27, 2013 as an "investment club" and, on September 27, 2019, it was converted into an "equity investment fund." Returns shown from inception on June 27, 2013 through July 31, 2020

Autorregulação ANBIMA
Adesão Provisória

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Additional analysis



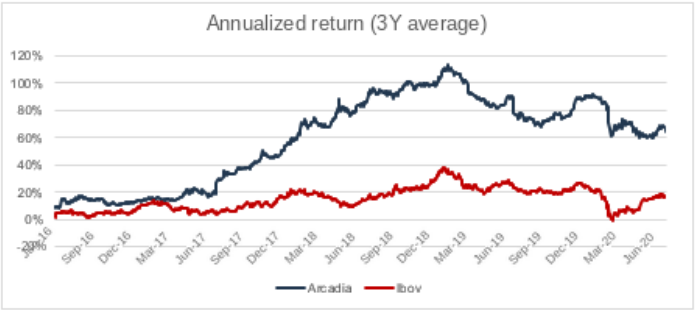
Max drawdown Arcádia: 30%
Max drawdown Ibovespa: 39%



Max drawdown Arcádia: 34%
Max drawdown Ibovespa: 47%

	Arcádia	Ibovespa
Volatility – since inception	25.1%	26.5%
Sharpe – since inception	1.25	0.21
Correlation (Arcádia vs Ibov) – since inception	0.35	-
Volatility – 12 months	31.3%	42.8%
Sharpe – 12 months	0.84	0.16
Correlation (Arcádia vs Ibov) – 12 months	0.74	-

Rolling 3-year returns



Autorregulação ANBIMA
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