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ARTICA
ASSET MANAGEMENT

HOW SHOULD WE DEAL WITH THE MACROECONOMIC SCENARIO?

February, 2022

Dear investors,

At the start of this year, the market turned its attention to Brazil's macroeconomy. With high interest rates and the political uncertainty expected for the year, the topics of the moment are interest rates, inflation, the exchange rate, GDP and elections. This scenario is leading Brazilian investors, both institutional and individual, to move their capital from the stock market to fixed income while, interestingly, foreign investors are on the other side of the trade, buying shares on the Brazilian stock exchange. In this letter, we will explain which side we are on.

Interest Rates and the Stock Market

As a rule, investors buying stocks demand an expected return that is always above the benchmark interest rate, since they take on more risk by buying stakes in companies than by buying fixed income securities. The higher the return demanded by the investor, the lower the price he is willing to pay for a stock, since the main methodology for estimating the value of a company is based on projecting how much cash its business will be able to generate each year and discounting this cash flow at the investor's target rate of return. Thus, the higher the target return, the larger the discount applied to the cash flow and, consequently, the lower the resulting estimate of the company's price.

Therefore, when the benchmark interest rate rises, the return required on equity investments also rises, and the practical effect is that the market begins to assign a lower price to stocks, causing the stock market to fall. This logic may seem to justify moving capital from the stock market to fixed income, but note that the move only makes sense if made before interest rates rise, since, after the increase, the stock market has already fallen and you would be selling cheap stocks. In turn, making the move before the rise in interest rates raises a more fundamental problem: how can one know when interest rates will rise?

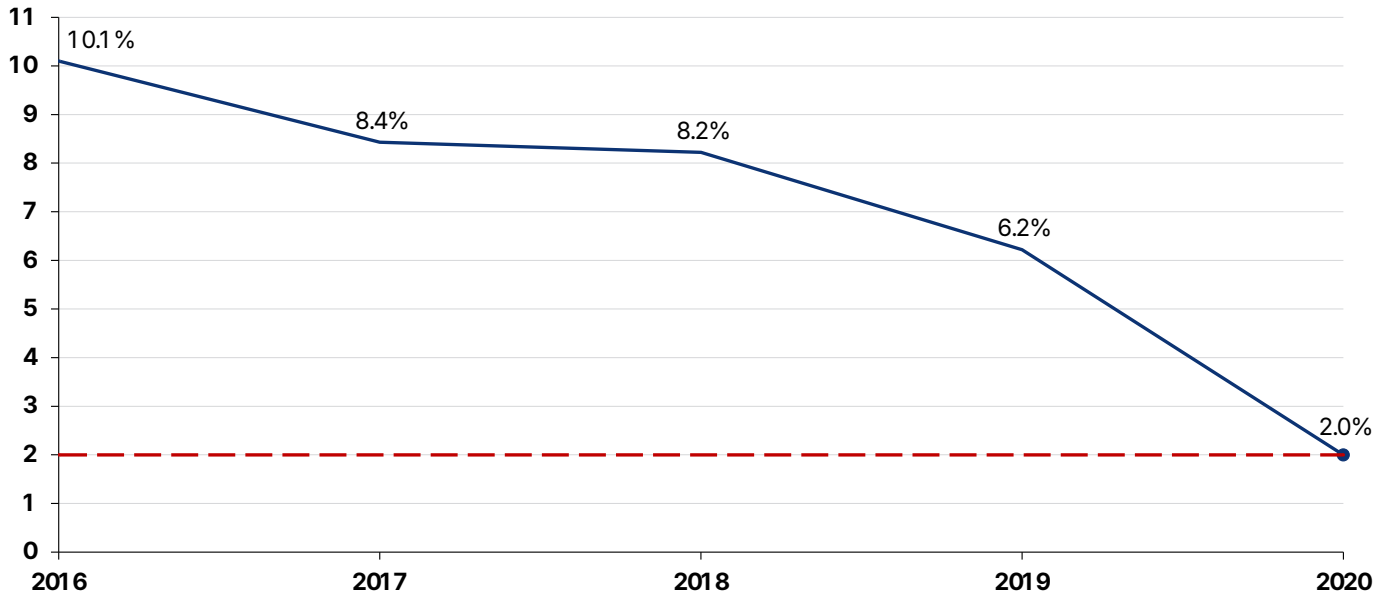
It is because of this problem that we follow an investment philosophy that is not based on macroeconomics. We have used the example of interest rates, but it extends to other macroeconomic factors and is somewhat more complex: the market already factors in a projection of how interest rates will evolve over the years, so we would need to know when interest rates will rise (or fall) more precisely than the market already assumes in its expectations. To illustrate how difficult it is to project macroeconomic variables, we will assess the accuracy of experts over the last 20 years.

Expert projections

We analyzed data published by the Central Bank's Market Expectations System, which collects daily forecasts of macroeconomic variables produced by around 130 institutions participating in the financial market and consolidates these data into statistical series. With this information in hand, we checked the value projected by the market starting 4 years before the date being projected. See this example illustrating the logic used to build the charts, considering only the projection for the 2020 SELIC rate.

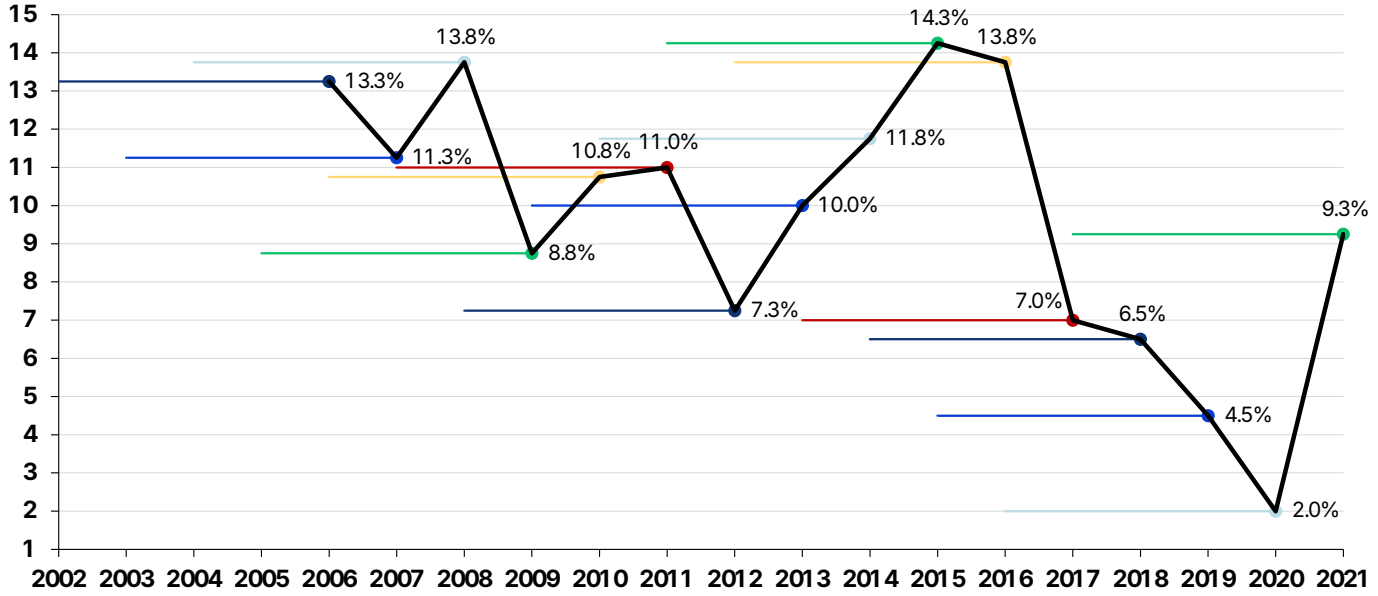
The chart below should be read as follows: in 2016, the market projected that the 2020 SELIC rate would be 10.1%; in 2017, it projected 8.4%; and so on, until 2020, when the actual SELIC rate was 2%. Note that, if the market had correctly projected the actual rate over the previous 4 years, the chart would be the dotted red line.[1]

Projection for the 2020 SELIC rate



If the market always got its SELIC rate projections right, the long-term chart with projections and forecasts would look as illustrated below

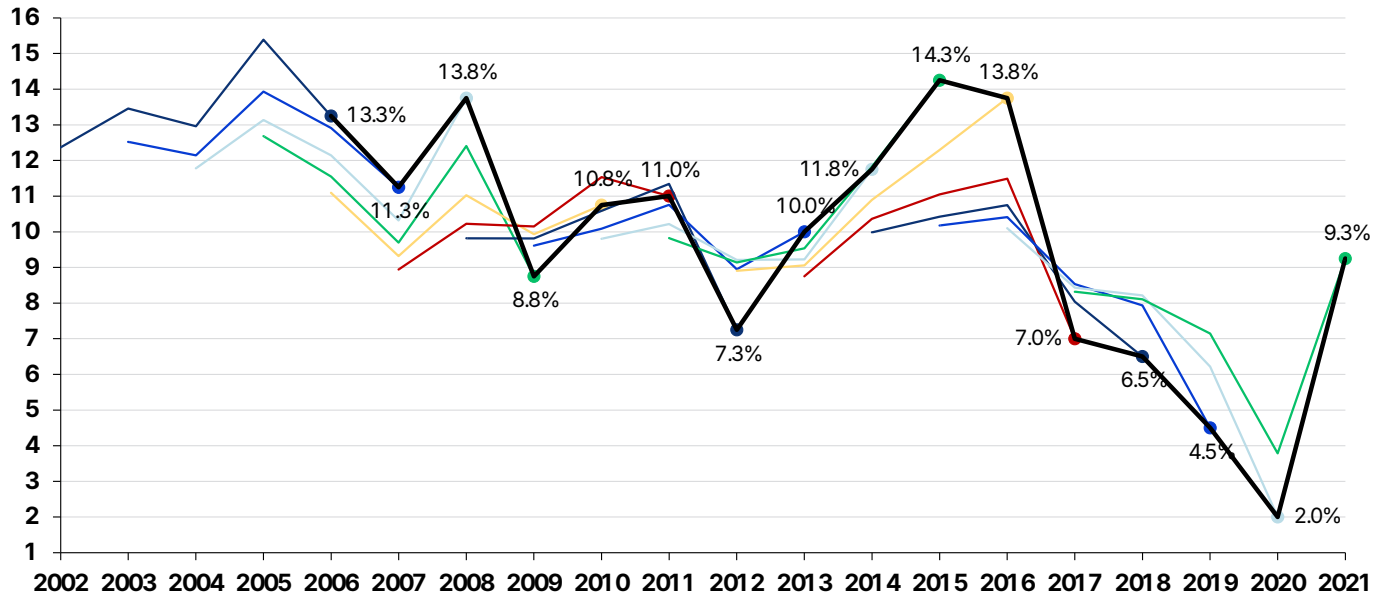
Chart if SELIC rate projections were always correct



Now let us turn to the charts comparing the actual projections for the SELIC rate, GDP, the Dollar (USD/BRL) and the IPCA with the actual values over the last 20 years. They are somewhat complex, but the way to read them is: the more curved the colored lines, the larger the errors in market projections. The black line represents the actual values.

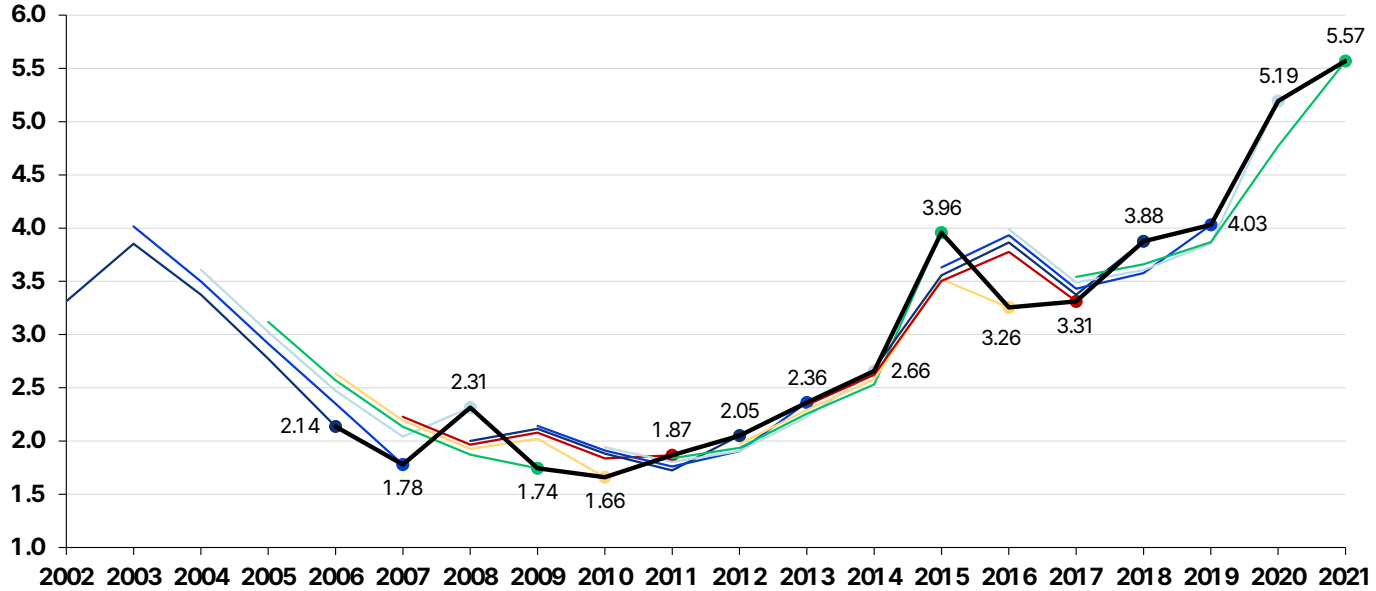
[1] Values reflect the average of this variable over the year in question.

Projections vs. actual values - SELIC rate

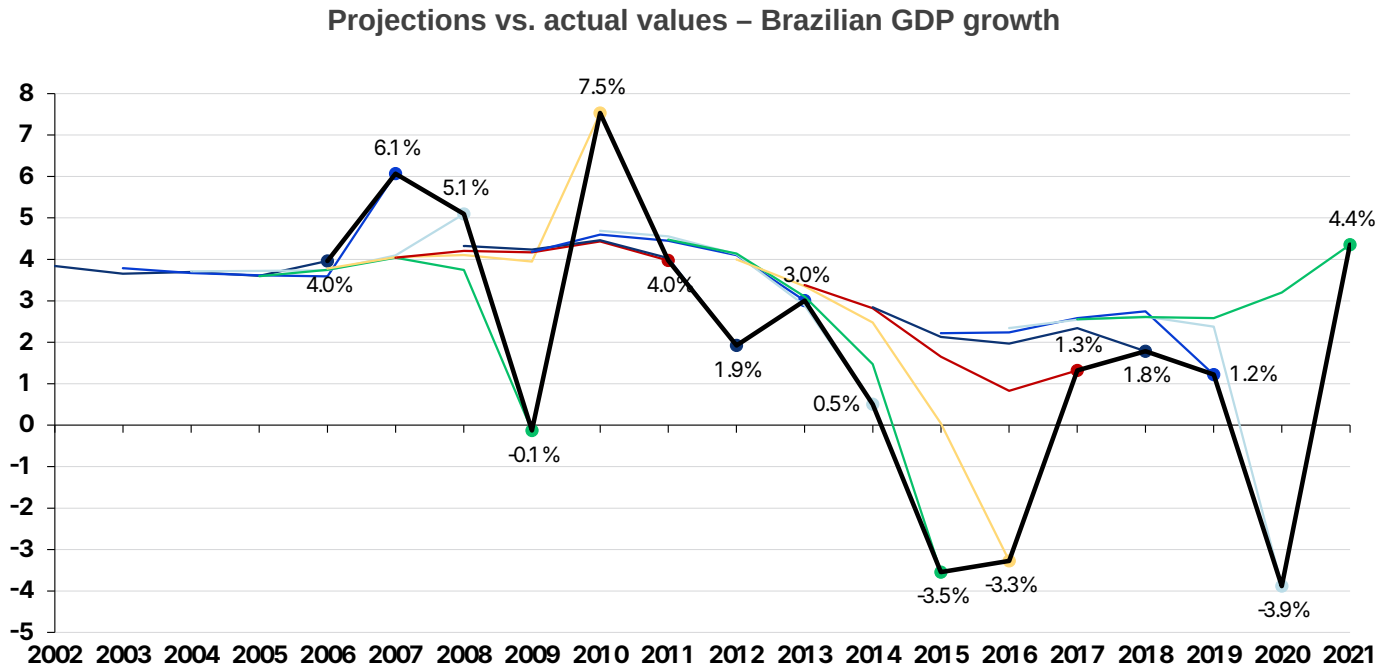


Note how strongly the projections are anchored to the interest rate prevailing at each moment. Projections for the 2021 SELIC rate tracked the evolution of the rate between 2017 and 2020, so that the projection made in 2020 for the following year was further off than the projection made in 2017 for 2021.

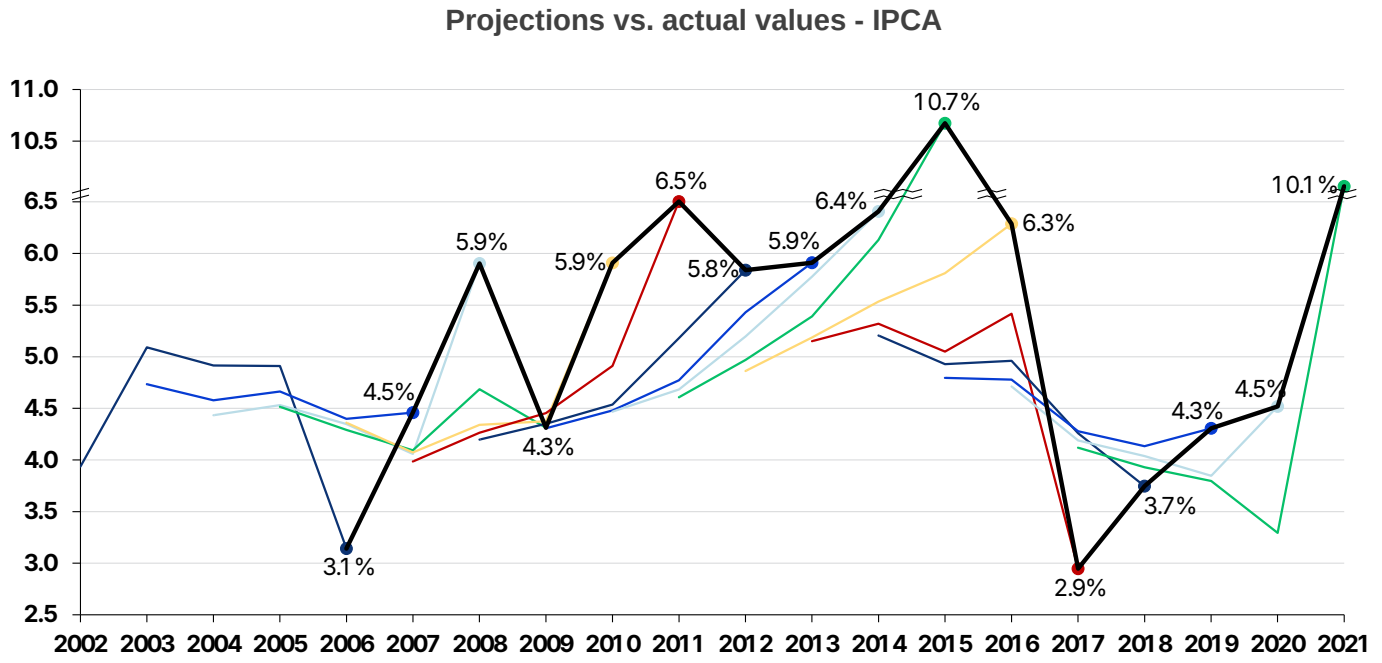
Projections vs. actual values – Dollar (USD/BRL)



For the dollar, the anchoring effect of the prevailing exchange rate is once again visible. The projections vary little from the exchange rate at the time they were made, and their predictive power is very low.



In GDP projections, the market seems to always assume an average growth rate of between 2% and 4%. None of the years with growth outside this range were anticipated by the market.



For inflation, the same effect is present: the market typically expects something between 4.0% and 5.5%, and is wrong every time actual inflation falls outside this range.

In short, market projections for the main macroeconomic variables are far from accurate... Bear in mind that these projections are made by teams of experts at Brazil's largest financial institutions, so it does not seem reasonable to us to expect anyone to be able to do much better than this consistently over time.

Our approach

We deal with this problem in a simple way, but one that has worked for us for almost 9 years, and has worked for other investors with similar investment philosophies for several decades: we do not try to project macroeconomic scenarios. This stance stems from the reflection that, however uncomfortable it may be to live with this uncertainty, there is no benefit whatsoever, for our investments, in replacing the discomfort of uncertainty with the comfort of an illusion of knowledge about the future.

Starting from the premise that it is not possible to predict the macro future, the strategy of buying stocks when the macro scenario is good and selling when it is bad would lead to the undesirable result of buying high and selling low.

Another important consideration is that, in long-term theses such as ours, we are likely to go through both good and bad years from a macroeconomic standpoint. Therefore, our strategy is to identify good companies with resilient business models, capable of weathering the crises that will certainly occur in the future, and to buy shares of these companies when their prices are very attractive, regardless of the macro scenario of the moment.

What we are doing now

Finally, to practice. We are now on the side of foreign investors, buying the shares of our fellow Brazilians who have decided to move into fixed income, since the Brazilian stock market seems cheap to us and we are finding interesting investment opportunities in a quantity we had not seen in years.

After the recent decline in the stock market, we were able to allocate a good part of the capital we had been holding in cash for months. Alongside this, this year Ártica's partners and management team made new contributions to our fund, as did several people who have been investing with us for some time and also decided to allocate more capital to Ártica Long Term FIA.

We thank our investors for their trust, for staying with us even at times when we decided to go against the tide, and we would remind you that we should still be rooting for the stock market to fall, since we want to buy new shares as cheaply as possible!

Fund characteristics

ÁRTICA LONG TERM FUNDO DE INVESTIMENTO DE AÇÕES (the "Fund"), managed by Ártica Gestão de Recursos Ltda., is an equity investment fund regulated by CVM Instruction 555/2014. CNPJ: 18.302.338/0001-63

Target audience

The Fund is intended exclusively for qualified investors (under CVM Instruction 555/2014) seeking long-term-focused returns.

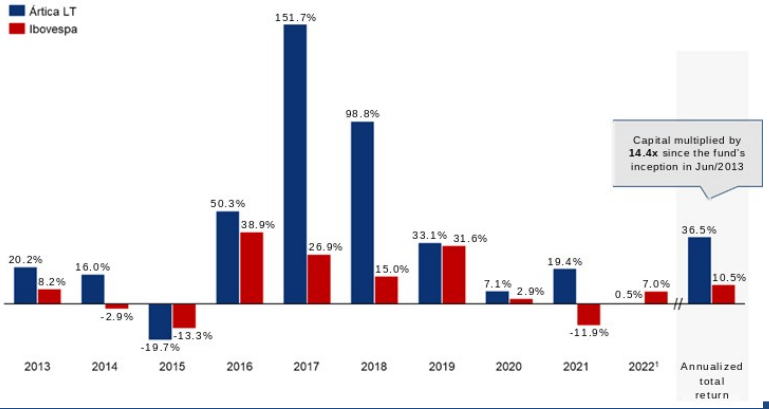
Fund objective

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.

Current net assets	R$164.6 million
12-month average net assets	R$141.8 million
Cumulative return	1,342.9%
12-month return	21.4%
36-month return	54.8%

ANBIMA classification	Equities (Free)
Manager	Ártica Gestão de Recursos Ltda.
Administrator / custodian	BTG Pactual Serviços Financeiros S.A. DTVM
Minimum investment	R$20.0 thousand
Additional investment	R$1.0 thousand
Minimum balance	R$10.0 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)

Annual return



Monthly return

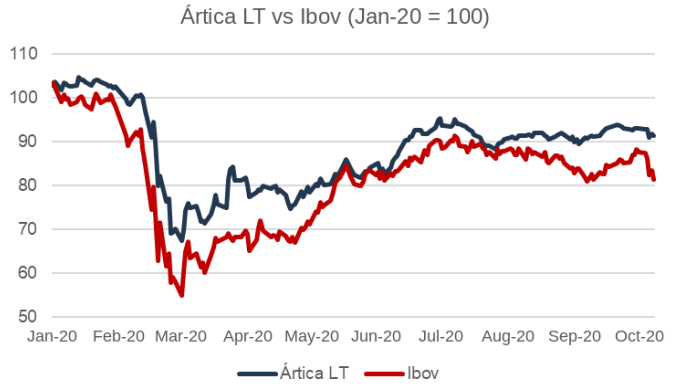
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	Cumulative
2013	Ártica LT	-	-	-	-	-	2.2%	6.7%	(5.2%)	8.8%	8.3%	(1.0%)	(0.3%)	20.2%	20.2%
	Ibovespa	-	-	-	-	-	(11.3%)	1.6%	3.7%	4.7%	3.7%	(3.3%)	(1.9%)	8.2%	8.2%
2014	Ártica LT	(4.5%)	2.9%	2.2%	(0.9%)	4.2%	7.7%	1.2%	0.9%	(1.2%)	(1.2%)	6.2%	(1.7%)	16.0%	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	Ártica LT	(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	Ártica LT	(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	Ártica LT	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	Ártica LT	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	Ártica LT	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	Ártica LT	2.7%	(4.2%)	(24.8%)	8.0%	0.2%	6.7%	9.9%	(2.9%)	(0.2%)	0.1%	12.2%	4.6%	7.1%	1,101.6%
	Ibovespa	(1.6%)	(8.4%)	(29.9%)	10.3%	8.6%	8.8%	8.3%	(3.4%)	(4.8%)	(0.7%)	15.9%	9.3%	2.9%	150.0%
2021	Ártica LT	(1.1%)	(1.5%)	8.1%	6.3%	7.8%	4.8%	(2.1%)	(1.3%)	(2.2%)	(1.6%)	(2.7%)	4.1%	19.4%	1,335.2%
	Ibovespa	(3.3%)	(4.4%)	6.0%	1.9%	6.2%	0.5%	(3.9%)	(2.5%)	(6.8%)	(6.7%)	(1.6%)	3.0%	-11.9%	120.2%
2022	Ártica LT	0.5%	-	-	-	-	-	-	-	-	-	-	-	0.5%	1,342.9%
	Ibovespa	7.0%	-	-	-	-	-	-	-	-	-	-	-	7.0%	135.6

* Ártica LT 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 January 31, 2022

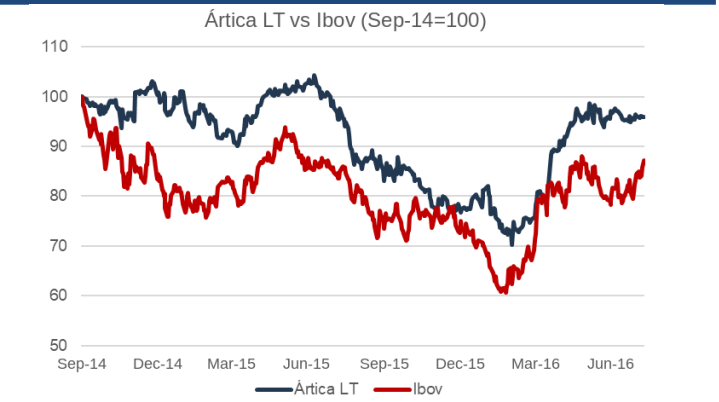
Autorregulação ANBIMA – Gestão de Recursos

This material is intended solely to provide information and transparency regarding the management carried out by Ártica Gestão de Recursos, and does not constitute, and should not be construed as, an offer or solicitation to buy or sell any financial instrument or to participate in any specific business strategy. All opinions contained herein were prepared within the context and conditions prevailing at the time the presentation was edited and may change without notice. They also do not take into account the investment objectives, financial situation or specific needs of any particular investor.

Performance in crisis scenarios



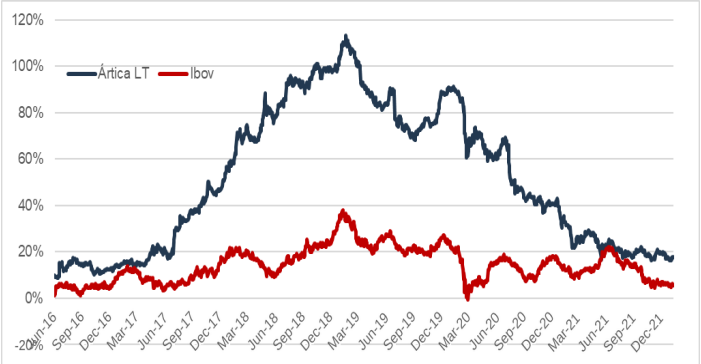
Max drawdown Ártica LT: 34%
Max drawdown Ibovespa: 47%



Max drawdown Ártica LT: 30%
Max drawdown Ibovespa: 39%

	Ártica LT	Ibovespa
Volatility – since inception	23.5%	25.6%
Sharpe – since inception	1.25	0.21
Correlation (Ártica LT vs Ibov) – since inception	0.37	-
Volatility – 12 months	13.9%	20.2%
Sharpe – 12 months	1.34	(0.59)
Correlation (Ártica LT vs Ibov) – 12 months	0.71	-

Rolling 3-year returns



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Gestão de Recursos

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