

## Nebraska Capital - Fourth Investment Report - June, 2016

As written in our last report, this edition comes with updates on our other two major investments besides Itaú (and Bradesco). But before digging into these companies, we have a few words about what we have been doing. Our portfolio is getting simpler and simpler, and this reflects the fact that we see ourselves as businessman rather than fund managers. Apart from Itaú (along with Bradesco), Equatorial (along with Cemar), and Vivo, we have just 2.5% our of assets invested in a Brazilian small-cap and 6.2% in three US companies (with the currency exposure fully hedged). Cash is currently 17.4% of assets. We spend very little time thinking about the composition and balancing of our portfolio. We don't wake-up every day trying to answer the question "*which is the optimal portfolio today?*". We think this question can just drive one crazy and that it would deviate attention from what is really important that we do daily: to interact with our core holdings, read broadly, and think. Decisions to buy or sell some stock should be *no-brainers*, and our portfolio at each point in time is mostly a consequence of these *no-brainers*, along with market price variations.

We don't see Nebraska as a "portfolio of stocks calibrated to perfection", rather, we see it as a holding through which we just channel our shareholders' funds into a few companies that we have selected taking into consideration both these firms' characteristics and our own limitations and capabilities as managers of this holding. If we are going to make a new investment, we must have strong reasons to do so - and, believing that a willingly buyer will bail us out of a discomforting position in the short-run (or even in a few years) is not a strong reason. On the other side, one does not need a strong reason to own a great business, while owning a bad business requires not only heavy motivations, but also a good dose of luck.

A strong reason, for example, can be a very attractive price based on current financials for a company we would like to own forever (a potential core holding). We may also, with much care, judge that current financials underestimate the potential of a nice business. The combination of a company we have selected as an "own forever" and a strong reason is very, very rare. We cannot highlight enough the difference between owning a great business and deciding to buy into a new one. Financial markets can behave irrationally, but rarely do so (especially regarding good businesses); and, deep studies may lead us to unique insights, but, by nature, those require so much time and effort that they must be scarce. Simply put, given hypothetically perfect valuations made by a "know-everything" appraiser, if you own a great business and is worried over whether your neighbors' company with similar qualities, but from a totally different industry, will end up better, and thus thinking about changing positions (at least partially), your problem is neither a business, nor a rational, one; it is rather a psychological issue from which most businessmen escape by not having their companies' shares being daily traded. (Obviously, some consideration for risk and diversification is needed, but that is another large theme.)

Two close this introduction, two examples of non-investments will help. First, we had been following Localiza (Brazil's leading car rental company) for years, but had not yet done a thorough job of studying it. Although we still have much to learn about the company, we have now clarified some major doubts. While we were doing this job, the company's shares traded at a price (less than 2.5x book value) in which we would, with our current knowledge about the business, like to make an initial small investment. In fact, we had all the good "feelings" about Localiza's shares at such a moment, but we chose to be disciplined and have no regrets at all. Since then the stock has risen about 50%, to a point at which it is not a *no-brainer* based on current financials. We like the business and have improved our understanding about it, but we recognize that we have no major insights about underpriced growth/margin improvements. Therefore, we see no reason for an investment at this point. Moreover, we have no hurry to "generate" reasons by plotting

numbers on some spreadsheet that would give us support to get into a new investment, which would make our "portfolio" more "normal" for outsiders.

The second example is Renner (the leading clothing department chain in Brazil). Almost anyone you talk to will agree that Renner is the best amid its peers and that it has a huge growth, with great returns, for the following years. We really appreciate Renner's managers' achievements so far, and, perhaps, after some minor time invested in studying the business, we could rapidly agree with the overall assessments regarding the next couple of years or so. But our job is not to look after consensus and try to find reasons to be there. Our job is to select great investments for our shareholders, based on our competencies. Clothing retailing is currently not in our circle of competence, so we just keep reading Renner's results and have no troubles not owning it.

Finally, Nebraska's mindset evolution over the last three years is based not just on a much higher focus on great businesses to own forever, but also on a much deeper understanding of our task, personalities, limitations and capabilities so that we can behave more and more like businessmen "from the real world". We are not seeking comfort on conventionality, but rather superior results based on rationality.

### **1 - Equatorial (17.1%) and Cemar (9.1%)**

In his most recent book (from 2012), Nassim Taleb wrote about a new word, "*Antifragile*", which, according to him, is an adjective for things that gain from disorder. To fit the definition, it isn't enough for the analyzed "thing" to be resilient or robust, it must get out of the storm stronger. Brazil's current economic crisis impacts all of our companies in many ways, which are mostly negative. Nonetheless, for two sets of reasons (the second unique to the holding company), Equatorial may, on balance, be deemed "*Antifragile*". To begin with, some further details on how the crisis affects regulated electricity distribution companies:

- Energy consumption falls, while client defaults and power theft tend to rise. Operating expenses move higher because of inflation and efforts to combat defaults and thefts.
- Within regulatory cycles (4 or 5 years), gross profits are defined either in R\$/MWh (for low-voltage clients) or in R\$/MW (high-voltage ones). In other words, when unitary consumption from low-voltage clients declines, distribution companies see their gross profits tighten. Low-voltage clients account for 60% to 85% of gross profits for most companies.
- Prior commitments to buy energy may expose distribution companies beyond 105% of the volume required to serve their clients, and thus expose them to financial losses in spot markets. Higher receivables and higher cost of debt bring further financial pressure.

That said, we can move on to the first set of reasons:

- Over the country, most distribution companies are suffering more than Equatorial in all aspects above mentioned. In terms of unitary consumption, Equatorial has been favored by being in poorer regions where consumption is already so low that it has not been falling. But in all other aspects, this same geographic factor should prove a further challenge in tough economic times; nonetheless, the company is beating most of its peers in terms of OPEX evolution (especially adjusted for growth in number of clients served), and energy losses. The table below brings Cemar's and Celpa's numbers versus those of some peers.
- With OPEX efficiency suffering throughout the sector, the next regulatory cycle should get "easier" for Equatorial as regulators base their targets on updated benchmark studies. The same is valid for client defaults and energy loss ratios.
- A higher perceived risk in the country should lead to higher WACC for regulatory purposes.

- Equatorial's superior balance sheet (with much less leverage than those of its peers) and profitability lead to a lower cost of debt and a capacity to keep investing more than its peers (in relative terms) to improve its network. Hence, the company is planting the seeds for an even higher edge in operating expenses in the future, while growing its asset base (on which good returns are allowed by regulators).

Year	2014	2015	Change
<b>Company/Controller - State</b>			
<b>Celipa/Equatorial - Pará</b>			
Number of clients (yearend)	2,183,027.00	2,310,711.00	5.8%
OPEX - R\$ '000 *	422,000.00	395,000.00	-6.4%
<b>per client - R\$</b>	<b>200.28</b>	<b>175.80</b>	<b>-12.2%</b>
Total energy loss - % of required **	31.2%	29.2%	-6.4%
<b>Cemar/Equatorial - Maranhão</b>			
Number of clients (yearend)	2,197,823.00	2,261,602.00	2.9%
OPEX - R\$ '000	330,000.00	355,700.00	7.8%
<b>per client - R\$</b>	<b>152.64</b>	<b>159.53</b>	<b>4.5%</b>
Total energy loss - % of required	17.5%	17.6%	0.6%
<b>Cepisa/Eletróbrás - Piauí</b>			
Number of clients (yearend)	1,144,330.00	1,155,063.00	0.9%
OPEX - R\$ '000	273,000.00	294,000.00	7.7%
<b>per client - R\$</b>	<b>243.06</b>	<b>255.72</b>	<b>5.2%</b>
Total energy loss - % of required	29.3%	30.5%	4.1%
<b>RGE/CPFL - Rio Grande do Sul</b>			
Number of clients (yearend)	1,414,569.00	1,444,523.00	2.1%
OPEX - R\$ '000	236,000.00	251,000.00	6.4%
<b>per client - R\$</b>	<b>167.84</b>	<b>175.58</b>	<b>4.6%</b>
Total energy loss - % of required	9.4%	9.3%	-1.3%
<b>AES Sul/AES - Rio Grande do Sul</b>			
Number of clients (yearend)	1,295,540.00	1,308,163.00	1.0%
OPEX - R\$ '000	287,000.00	322,000.00	12.2%
<b>per client - R\$</b>	<b>223.71</b>	<b>247.34</b>	<b>10.6%</b>
Total energy loss - % of required	8.8%	8.9%	1.1%
<b>Paulista/CPFL - São Paulo</b>			
Number of clients (yearend)	4,127,904.00	4,217,653.00	2.2%
OPEX - R\$ '000	610,000.00	677,000.00	11.0%
<b>per client - R\$</b>	<b>150.02</b>	<b>162.24</b>	<b>8.1%</b>
Total energy loss - % of required	8.4%	8.7%	2.6%

\* OPEX includes only personnel, outsourced services and materials. \*\* Energy losses are presented here as a metric for operational quality.

CPFL is a well regarded private operator. Eletróbrás is the central government's holding and AES is a US corporation.

Cemar and Cepisa, as well as RGE and AES, operate in neighbor regions with similar characteristics. Cepisa has had negative EBIT over the last years and AES's EBIT lags regulatory levels, whereas both Cemar and RGE show great returns on invested capital.

A couple of specific, potentially negative, effects of the economic crisis on Equatorial should also be mentioned; though neither is likely to significantly impact the value of the company in our opinion:

- Income tax benefits could be challenged as the central government is under stress.
- Some of the government's financial assistance to poor clients has already being cut-down (with impacts absorbed without major issues so far), and further cuts may occur.

Now the second set of reasons:

- With many distribution companies owned by the central government, states, and foreign corporations, difficulties from the crisis can only accelerate a consolidation scenario.
- As we have discussed in previous letters, human capital and a well-oiled management machine are necessary to turn distribution companies around and bring them to regulatory standards. We believe that there is at most a handful of groups with those capabilities operating in Brazil - and that is being optimistic about it.

Both to keep current operations well and to be ready to enjoy acquisition opportunities, it is hugely important that Equatorial keeps its managers and main executives aligned with the board and tied to the company for the long-term. For a company with no defined controller this may prove a greater challenge than what it seems at a first glance - and it is perhaps the risk that worries us the most.

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Such as it is true about Renner and Localiza, there seems to be little doubt amid financial analysts that Equatorial is a great business, with superb people and a huge potential. And its current share price offers no clear signal that the market is leaving something underpriced as well. Nonetheless, Equatorial is our second largest holding.

We have acquired our stake in the company between two and two and a half years ago, at a price almost 50% lower than current market quotes. Since then the business has been doing very well as the following table exemplifies. The regulatory environment has improved markedly, as did our level of knowledge over many aspects concerning this investment, to a degree in which we feel quite comfortable with the company's economics over a very long period. We believe that retained capital is very likely to be deployed for good returns over decades and that acquisitions are quite likely to be accretive. With that, even at current market prices, we believe this investment will provide us nice returns when compared to most other "opportunities" and Brazil's attractive fixed income alternatives; and, because of the regulatory model, Equatorial's returns are well protected against inflation, another major plus.

In addition, we have no better investment idea (and idle cash), and our overall exposure to the sector is still comfortable, despite the always present, though small in our opinion, regulatory risk. In simple terms, we see no reason to sell or cut back our stake in Equatorial. It is important to note, however, that we do not justify holding it by forecasting huge operational improvements, not even in Celpa (where turnaround efforts are ongoing); neither we seek comfort in believing that a great acquisition will come along soon. Those are just potential benefits.

<b>Cemar - Billion R\$</b>	<b>Dec--2013</b>	<b>Dec--2015</b>
Regulatory Asset Base	2.10	2.70
Growth (annualized)		13%
Working Capital	0.30	0.40
Net debt (adjusted for short-term regulatory assets)	(0.90)	(0.70)
<b>Equity</b>	<b>1.50</b>	<b>2.40</b>
<b>Equity Growth (annualized return)</b>		<b>26%</b>
<b>Annualized inflation (IGPM Index)</b>		<b>7%</b>
Dividends paid	0.04	0.06
Dividend / Equity	3%	3%

\* Equatorial owns 65% of Cemar and 96.5% of Celpa, which has not delivered operational results as good as Cemar's for this period, as it is still in the early days of a turnaround process that began late in 2012. We invest in Cemar directly through a thinly traded stock.

In ANEEL's regulatory model, WACC implies a real return on equity of 10.9%. From the previous table, Cemar's current figure is way above this. As we have explained in previous reports, we don't see it falling much at least for a couple regulatory cycles, and holding way above ANEEL's figure over the long-run. This may seem a too-optimistic assumption for Americans who are used to a quite different regulatory model in their country; one in which there is one

regulator per state overseeing just a few "natural monopolies" and regulating them from a "cost-perspective" basis. But, to compare Brazil's regulation to the US is just not practical.

ANEEL oversees too many companies, in many cases with financial reports of poor quality and terrible operational metrics (such as frequency and duration of interruptions). A better comparison comes from the UK, where Ofgem, a national institution, regulates 14 distribution networks by benchmarking and financial incentives for quality improvements, just as ANEEL does. Ofgem's base-case ROE in real terms is 6%, but the best operators can go beyond 12%. This is quite an ample gap in a country in which service levels are already nice, energy losses are well controlled, and the cost of capital is very low. Moreover, as shown above, Equatorial's edge over most peers is currently widening rather than tightening. It is also worth noting that Ofgem's model is the one ANEEL's personnel look up to as a source of inspiration.

One thing that is remarkably different is how Ofgem approaches capital expenditures (Capex): it does not look at it alone; rather it defines maximum targets for TOTEX (Capex + OPEX) and simply capitalizes 80% of it. ANEEL, on the other side, regulates only OPEX levels; for Capex, as long as the investments are prudent and correctly accounted for, all of it goes to the asset base. ANEEL's method creates a huge incentive for investments, because the more a company invests, the better its network and the lower its expenses to operate it; and when defining OPEX targets through its benchmarking system, ANEEL does not consider different levels of past investments to adjust the study's data. As we have commented above, this system favors well capitalized companies. But, given the very high levels of energy losses and poor quality metrics in Brazil, this is exactly what regulators want - they are not being naive about it. For ANEEL, success would mean more well-capitalized companies and better services all over the country. In that light, Equatorial's superior return is a good thing for the system; and, for competition to attack it, consolidation and turnarounds, for which managerial capabilities are scarce, would be necessary, enhancing the value of these intangible assets that Equatorial holds.

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A final word on assets with predictable cash flows: in developed countries the chase for yield is so strong that some "awkward" situations have begun to show up - alas, some of these "*castle of sands*", such as renewable yield-companies, are already falling down. People were using these assets to create tax-free entities, most of which were trading at P/E ratios above 25x, distributing the vast part of these earnings and still promising to grow earnings per share at very fast paces. Well, how can an asset-heavy company grow earnings without reinvesting its profits?

If you trade at 25x earnings, it is possible, you just issue new shares at this price and invest the proceeds for 10% rates of return. In other words, your shareholders are willing to get 3% or 4% initially under a promise that you will be able to attract more shareholders who will give you capital to deliver the former ones some "free-growth". It seems like a Ponzi scheme to us. And that is without mentioning the premise that returns of 10% are always going to be available, which seems absurd. After all, if interest rates are falling and people are pouring money over these "safe-cash-flow" assets that can be easily replicated and require little managerial expertise, competition will take care of bringing these returns down. Investors must take a lot of care when returns on their investments rely more on financial markets than on their companies' fundamentals.

## **2 - Vivo (7.0%)**

In our first investment report (April, 2015) we wrote the following regarding our views for the competitive landscape in Brazil's wireless industry:

**"Interconnection revenues, which are fees paid by both fixed-line and wireless final users every time they call a wireless line from other operator, are declining rapidly according to regulation and will be almost zero by 2019. These revenues still represent a large part of the industry's free cash flow, and for Vivo's competitors' that had been focused on prepaid plans even more so - likely more than 50% from our estimates. This changing dynamic forces players to go after subscription and data revenues, and eliminates the incentive that clients still have to sign up more than one phone line to enjoy "on-net" discount from different providers - Brazil is one of the countries with the highest ratio of wireless lines to total population, it is about 137% in 2014, versus 103% in the U.S. We believe both ongoing changes are beneficial to Vivo given its marketing power and superior quality. In fact, this is already showing up as the company's market share in the most valuable postpaid lines has grown from 35% in 2011 to 40% recently."**

Both the pace of change in the industry and Vivo's relative strength over its peers have surpassed our expectations. Now, players need to get their clients to pay them instead of just giving someone a phone and praying for him to be a popular person (a "receiver"). In a clear signal of struggle, TIM and OI (the two players most dependent on "on-net" clients) have recently launched new plans that charge equally for calls within or without their networks (while interconnection fees still exist). Meanwhile, Vivo keeps gaining share amid valuable clients and showing much better revenue trends (even in the fourth quarter after TIM and OI new plans were launched). The table below clarifies Vivo's relative strength.

Wireless segment - major players	2012	2013	2014	2015
* Lines equivalent > 1 postpaid equals 4 prepaid (average ARPU ratio).				
Data is organized and adjusted by Nebraska Capital.				
<b>Vivo</b>				
Postpaid lines (million)	16.80	21.34	24.85	26.83
growth		27%	16%	8%
market share	37%	40%	42%	42%
Prepaid lines	57.33	53.55	51.58	42.19
growth		-7%	-4%	-18%
Lines eq*	31.13	34.73	37.75	37.38
growth		12%	9%	-1%
Net Service Revenues	20,435.70	21,691.30	22,524.60	23,642.50
growth		6%	4%	5%
Share of big-3 revenues			46%	48%
<b>Claro</b>				
Postpaid lines	13.10	14.30	15.65	16.65
growth		9%	9%	6%
Prepaid lines	52.20	54.20	55.46	49.33
growth		4%	2%	-11%
Lines eq*	26.15	27.85	29.52	28.98
growth		7%	6%	-2%
Net Service Revenues			11,073.00	10,803.00
growth				-2%
<b>TIM</b>				
Postpaid lines	10.70	12.30	12.50	13.58
growth		15%	2%	9%
Prepaid lines	59.70	61.20	63.20	52.65
growth		3%	3%	-17%
Lines eq*	25.63	27.60	28.30	26.74
growth		8%	3%	-6%
Net Service Revenues	15,428.52	15,986.92	15,725.35	14,716.33
growth		4%	-2%	-6%
EBITDA	5,011.96	5,206.74	5,538.27	5,395.21
growth		4%	6%	-3%
Capex (before spectrum)	(3,367.92)	(3,388.09)	(3,918.00)	(4,829.99)
EBITDA (-) Capex	1,644.04	1,818.65	1,620.27	565.21
growth		11%	-11%	-65%

Note: TIM is almost a pure wireless company, so its operating results are worth using here to note how tough is the competitive environment.

The game has really changed; it is also important to note that, from now on, data and voice consumption will come at very low incremental costs (at least for the two major players that have more infrastructure in place). Moreover, expenses to serve customers are likely to fall with technological improvements. Acquiring clients, however, is likely to get costlier. A typical game of winner-takes-it-all.

However, even though Vivo has been doing great in operational metrics, its financial results are still lagging because of the intense competition. Despite the brand power and captivity enjoyed by the premium player, we acknowledge that the wireless industry is highly susceptible to price competition. It is just hard, even for the premium player, to grow while competitors are playing too aggressively (we are seeing that happen with Verizon in the US as well). It is a very different marketplace from the ones we usually like the most (such as Itaú's and Equatorial's).

Since our investment, in addition to strong competition, the GVT merger has brought more complexity to Vivo's numbers, and was done at a high price (that became even higher because of currency and Vivo's stock price movements before closing). As the following table shows, GVT's consolidation is detrimental to short-term valuation metrics; whether it contributes to long-term shareholder's wealth is at least a close call. But, despite the rich price, we cannot overlook how much the deal closes the door for competitors (giving Vivo all the necessary assets to be one of the only two high-quality quad-play players in Brazil), and that synergies are likely very relevant (telecom is one of the few sectors in which this dangerous word can be used).

<b>Vivo's consolidated financials</b>	2013	2014	pro-forma with GVT	
			2014	2015
Million R\$				
Wireless Service Revenues	21,691.30	22,524.60	22,524.60	23,642.50
growth		4%		5%
Fixed Service Revenues	11,720.00	11,260.00	16,548.00	16,997.50
growth		-4%		3%
Voice	6,160.00	5,608.90	8,161.30	7,993.20
Data	3,650.00	3,655.70	5,674.80	6,001.00
TV	491.00	597.50	1,353.90	1,727.80
EBITDA	10,452.30	10,441.60	12,298.00	12,714.30
growth		0%		3%
Capex (before spectrum)	(5,582.80)	(6,374.30)	(8,395.20)	(8,318.80)
EBITDA (-) Capex	4,869.50	4,067.30	3,902.80	4,395.50
Capitalization		Sep-14		Jun-16
Market cap		55,040.13		71,935.14
Shares outstanding		1,123.27		1,691.00
Stock price (VIVT4 - PN)*		49.00		42.54
Net debt	(3,049.00)	(5,014.60)	(9,818.90)	(7,742.30)
Enterprise value		60,054.73		79,677.44
/ EBITDA		5.75		6.27
/ EBITDA (-) Capex		14.77		18.13
* Dividends of R\$5.34 per share were paid since our investment				

The reason we have invested in Vivo is that we ascribe a good probability of better financial results ahead. This should come primarily from both the competitive dynamics playing out in the market and favorable margin developments (mostly due to improvements in cost and expense lines). We are patient about it, especially in light of Vivo's free cash flow, clean balance sheet, and huge competitive advantages. By the way, these qualities, along with a "best-in-class" business, are features we appreciate very much, and are shared by our three major holdings.

Nonetheless, it is worth mentioning some other potentials that have either appeared or gained strength since our initial investment: (1) the new management team, led by GVT's founder Amos Genish, seems really engaged and in possession of good data and studies to guide its decisions; (2) TIM's and OI's recent financials show rapid deterioration;

and (3) if the concessions for old fixed lines are reshaped as seems probable, Vivo, with its fixed lines in the rich state of São Paulo, can get good benefits, as it would be able to invest in upgrades without fears of terminal-value disputes in 2025.

Finally, about GVT, it is important to note that it is not a simple company to understand and appraise (even as a stand-alone entity). About 45% of its revenues come from voice, a clear source of challenge ahead. Given the disclosure, we estimate revenue growth between 8% and 10% in 2015, and, if we adjust that for the fact that the highest growth came from paid-TV (with relevant programming costs), the growth in gross profits was likely about 2% lower than revenue gains. Those are not good numbers for a company investing more than its EBITDA in a country with a 10% inflation rate. GVT is not a "simple cable-company" as it usually seems from articles and news; it began as a phone company, it has many corporate clients, and its voice revenues just mentioned reflect all of this. Its fragmented, fiber-rich assets are valuable indeed, but much needs to be done.

GVT (R\$ million)	2014 *	2014 **	2015 ***
Revenues	5,484.34	5,288.00	
growth			8%-10%
Voice		2,552.40	
Data		2,019.10	
TV		756.40	
EBITDA	2,139.40	1,856.40	
Capex (before spectrum)	(2,049.00)	(2,020.90)	
EBITDA (-) Capex	90.40	(164.50)	

\* As disclosed by GVT before the merger.

\*\* Vivo's pro-forma numbers (Consolidated (-) Vivo 2014)

\*\*\* Nebraska's estimate.

From the table above, we can see that relying on pro-forma numbers is very difficult.

We appreciate your attention,