

## Valuation

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Elaborated by Sharp Capital and illustrated by Dimas Yuli

The capital markets drive a country's growth. For companies, it makes it possible to raise funds to invest and grow. As for individuals, it democratizes the investment opportunities, from large to small savers, who can become a minority partner or creditor of large companies with legal certainty, minimum cost, and liquidity. All the inner workings that connect savings to investments only exist because market actors seek the solution to an intriguing puzzle: how much is a given asset worth?

The most accurate answer is also the most generic. At any given moment in time, any asset will be worth simply as much as someone is willing to pay for it. Based on such reasoning, we can explain even the prices of assets that generate little or no income for their holders, such as Bitcoin, gold, or a work of art.

Daily price formation in the stock market is the result of the collision of ideas of all kinds of investors: bottom-up/top-down investors, quantitative investors, day traders, chart analysts,

each of whom with their particular biases and logic, whether they are Brazilians or from any other country. From this mixture of investors, each pursuing their individual interests within a defined set of rules, emerges a healthy microcosm of capitalism, which elevates the collective interest of the efficient allocation of capital and productive growth.

***“In investing, whenever you act, you are effectively saying, I know more than the market. I am going to buy when everybody else is selling. I am going to sell when everybody else is buying. That is arrogant, and we always need to temper it with the humility of knowing we could be wrong—that things can change—and acknowledging that we have a lot of smart competitors.” – Seth Klarman***

In 1906, Sir Francis Galton challenged participants at a livestock fair in England to guess the weight of an ox. The average of the 787 computed estimates was 1,197 pounds, just one pound below the actual weight. Wide and diverse estimates can be remarkably accurate and result in a phenomenon known as the “wisdom of the crowds”, which is fundamental to correct stock pricing.

But crowds are also fluid and volatile, and sometimes the behaviors of individuals can correlate and distort asset pricing. The perception of scarcity, the search for status, herd behavior, greed, fear, excess and lack of liquidity drive the opposite phenomenon, known as the “madness of the crowds”.

Between the wisdom and the madness of the crowds, here at Sharp we stand to humbly select investments. In this letter, we will comment on some practical angles that we find interesting on our main tool for valuing companies: the valuation model.

Commonly known as expected cash flows discounted to present value, we understand valuation more broadly, as an n-dimensional and multifaceted tool that would deserve not a letter, but a few books. In spite of that, we have selected some parts of our internal debates to share and provoke further reflections.

***“The single greatest edge an investor can have is a long-term orientation.” – Seth Klarman***

In order to invest in income-generating assets such as stocks, one of the lessons most often offered by successful investors echoes around a common line of thought: focus on the long term. It is recommended to avoid unstable forecasting about short-term buying and selling flows based on others’ psyche and to find refuge in a fundamental value anchor. The greatest glory belongs to the most patient. More focus on the destination, less focus on the path. But after all, what is this stable and peaceful destination we could aim for?

A company’s fair value, estimated from the static modeling of expected dividends, can create a perception of excessive security in the investor, and underestimate the real uncertainty inherent

to the intrinsic value of a company. Today, we have the opportunity to review some of our cash flow projections that were diligently built 20 years ago and their accuracy is almost nil. In the long run, things will probably unfold in a way we did not anticipate.

Moreover, the vast majority of discounted cash flow models carry an error in their design: since we do not know what the management team will do with the cash generated by operations year after year, we assume that it will be fully distributed via dividends to shareholders. In reality, this rarely occurs. In other words, most of the present value of businesses usually lies in something that management will do at some future time, which neither we, nor management itself, know what it is.

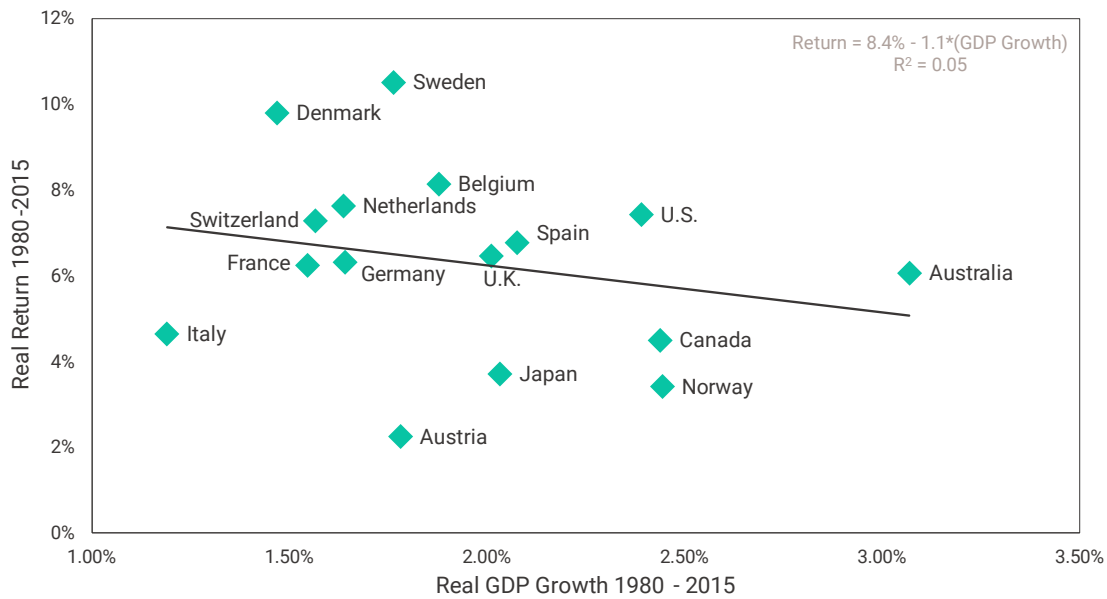
If the prospective view of value, drawn up in an objective and deterministic framework, does not offer that much accuracy, when that is combined with subjective assessments regarding the quality of human capital, the alignment of interests, the organizational culture, and the possible structural competitive advantages, it can lead to a better calibration of the fundamental value. We may not know what the future holds, but we can have an opinion about the safety margin available to us to get through adverse scenarios alongside the partners we choose to have.

Brazilian domestic stocks have dropped substantially in prices over the last year and, as always, we wonder: is this an opportunity to look beyond the short-term storms to obtain higher returns or is it simply the fair mark-to-market on the real future prospects?

***“I won the lottery the day I emerged from the womb by being in the United States instead of in some other country where my chances would have been way different.”  
– Warren Buffett***

Oscillations in the macroeconomic scenario are usually one of the greatest sources of opportunity for those who invest with a focus on the specific attributes of each company. Typically, the relevance of GDP growth to stock performance is overestimated, as shown in the chart below. Possibly, the entry price of an investment and the competitive environment are superior determinants, rather than the macro scenario, for stock performance.

Equity Returns vs GDP Growth, by country (1980-2015)



Source: GMO, Datastream and MSCI.

On the other hand, we can notice that the sample in the chart is biased. It does not include Venezuela, Argentina, China, and Russia, for example. Most of the equity investment theory and available literature has been built out on the experience of developed countries, particularly the United States, one of the greatest economic successes of the last 100 years.

According to Philippe Jorion and William Goetzmann<sup>a</sup>, from 1921 to 1996, U.S. equities had a real return of 4.3% per year, while the median for 39 other countries was 0.8% per year, with almost all other markets having experienced violent disruptions associated with financial crises, wars, expropriations, or social and political confrontations. History suggests that importing the U.S. risk premium to other countries may be a somewhat optimistic assumption.

Sberbank was a bank that attracted attention in Russia. It stood out for its consistently high return on equity, dominance in its industry, owner of the largest branch network in the country serving 75% of the population, and efficient in the digital transformation of its business platform. According to Bloomberg data, from 2008 to 2021, about 80% of sell side recommendations were Buy, with a Sell being very rare. The global investor who bought these stocks lost most of their capital.

At MercadoLibre, the operation in Venezuela in 2013 came to represent 24% of Ebit and 18% of Revenue; nowadays, it is worth practically zero. At Alpargatas, its sports footwear and textiles subsidiary in Argentina went from 15% of the group’s Ebitda in 2016 to 2% in 2019, the year it was divested.

<sup>a</sup> JORION and GOETZMANN, Global Stock Markets in the Twentieth Century. The Journal of Finance, Vol. Liv, NO. 3, June 1999.

When the risk is governance-related, whether micro or macro, we approach a kind of economic singularity, where standard investment theory may not apply and bets on mean reversion implicit in traditional “buy on valuation” may prove risky. Most of the time, economic crises will be opportunities to make good investments. The greatest danger may lie in importing established theories without adapting them to local conditions. Rules of thumb do not always apply to the stock exchange.

***“Bad companies are destroyed by crisis, good companies survive them, great companies are improved by them” – Andy Grove, legendary Intel CEO***

Over the past 20 years, some Brazilian companies have grown to become very dominant in their sectors. Each crisis endured has proven to become an opportunity to accelerate mergers and acquisitions at attractive prices, eliminate competitors with less access to capital, cut costs, and emerge much stronger for the next cycle. Such a successful formula remains valid, but after a few iterations on top of a stagnant level of per capita income, this successful formula may reveal itself to be less potent in the future than it was in the past.

In ten years, the bank’s consumer debt portfolio has grown at high rates in relation to GDP, causing the commitment of household income to rise from 23% to close to 30%, an unprecedented level in the historical series and a likely cyclical peak of leverage in the country. In the same period, Lojas Renner increased from a 60% penetration in the malls which we estimate are able to accommodate its stores, to 90%, while the Vivara brand went from 40% to 60% presence in the same metric. The top three electronics companies have migrated from 30% to 60% market share. Assaí and Atacadão have gone from a joint 9% share in food retail and are expected to reach 29% in the coming years.

Ambev, Havaianas, and M. Dias Branco have had omnipresence in Brazil for several years. Localiza has become the buyer of almost 15% of the cars produced in Brazil after the merger with Unidas and successive crises that drove out smaller businesses. The power distribution sector is already mostly run by private and reasonably efficient companies. After merging with Drogasil and seeing Brasil Pharma go bankrupt, Raia reached 27% market share in São Paulo, 15% in Brazil and is projected to continue gaining ground for much longer.

To put it in overly simple terms: the winners won.

The acquired dominance can make the investment safer and provide greater protection against the downside in the projected flows. The flip side of the coin is that it is getting harder to grow and to surprise the forecasts on the upside. Therefore, it may become less likely to find idiosyncratic investment theses of high growth potential and independent of the country’s performance than we have seen in the past.

For well-structured companies, there is always the alternative of exploring new markets. In the U.S., several companies have added substantial growth by dominating parts of the Western market in addition to the U.S. market. In Brazil, we have observed a new round of attempts to

internationalize companies. Unfortunately, the success of the globalization achieved by companies like Weg and Ambev still represents a major exception in this type of endeavor.

Brazilian companies have in place substantial barriers to entry against foreign companies, such as the ability to deal with bureaucracy, tax complexity, informality, logistical chaos, exchange rate fluctuations, and credit. However, these are tropical competitive advantages, which partly vanish when Brazilian companies seek new markets to grow.

***“The inescapable fact is that the value of an asset, whatever its character, cannot over the long term grow faster than its earnings do.” – Warren Buffett***

Until 2021, we experienced a typical bubble in the market, inflated by very low interest rates and earnings prospects that, under the current light, seem unrealistic. Such phenomenon has not been restricted to tech companies, but has also affected domestic companies reputed to be of high quality, along with the majority of IPOs. The bubble has already burst, and it was relevant.

Now, it is required to look to the future from this new pricing point, to evaluate the most feasible prospects and how much we are willing to pay for the stocks. The static reliance on historical multiples for future investments can be an unrewarding simplification, either due to the non-replicability of the previous conditions, or due to the unsatisfactory returns observed in portfolios that did not experience exceptional accuracy in stock picking.

In Brazil, by ignoring stock picking and observing market averages, we observe that the Ibovespa and IBrX 100 indexes appreciated, respectively, 10.0% and 13.4% per year in the 25-year window, while the CDI yielded 13.2% per year. Alternative indexes, such as IVBX (B3’s value stocks index) and SMLL (B3’s small caps index), had similar performances in longer windows. As shown in the table below, the only window which is slightly more favorable was the 20-year period, which encompasses the extraordinary 2002 entry point.

Index	Nominal return per year			
	Years			
	25	20	15	10
Ibovespa	10.0%	12.1%	3.7%	6.1%
IBrX 100	13.4%	14.1%	5.3%	7.8%
IVBX	-	12.6%	5.6%	5.9%
SMLL	-	-	4.4%	2.7%
Average of the Indexes	11.7%	12.9%	4.7%	5.6%
CDI	13.2%	11.2%	9.3%	8.8%

Setting the averages aside, below are some selected companies outside the commodities and utilities sectors that have been winners in their respective sectors and have a long history of audited financial statements available. The earnings growth for this sample, which is fully biased as it contains only winners, was GDP + 3.4% per year in real terms over the 2006-2022 period. If

we include the earnings consensus estimates for 2024, long-term growth would improve to GDP + 4.6% per year, since there is an assumption of a reasonable operational improvement and of a drop in the CDI rate implied in the sell side analysts' estimates for the 2022-2024 period<sup>b</sup>.

Earnings Per Share (EPS)   p.a. Real		
Company	2006-2022E	2006-2024E
RADL3	14.0%	14.9%
RENT3	11.3%	12.7%
LREN3	9.6%	10.6%
WEGE3	7.8%	8.2%
MDIA3	5.5%	7.8%
ABEV3	4.7%	4.1%
ALPA4	1.3%	3.8%
BBDC4	2.3%	3.2%
ITUB4	2.3%	2.9%
PSSA3	-1.9%	1.3%
CYRE3	1.2%	0.8%
Average EPS	5.3%	6.4%
GDP	1.9%	1.8%
EPS (-) GDP	3.4%	4.6%

Seeking to replicate the winning group, let us imagine a theoretical company whose results continuously grows by 6.4% in real terms (1.8% GDP + an additional 4.6%, a similar level to our sample that includes a trajectory of some success until 2024). The company reinvests 62% of its profits at a generous 20% per year, while the remainder is distributed as dividends. In this case, the ratio between the price paid for the shares and the earnings generated by the company (P/E) must be a maximum of 9.9x, so the investor can obtain an annual return of at least 10% in real terms.

For many years, given our reality of interests, paying over 20x the estimated profit of companies was a great exception and would only be due in cases of companies that could achieve “escape velocity” of results. The bubble period made super multiples commonplace and the relentless gravitational pull of the market ensured that asset pricing was put back on the orbit of discounted cash flow.

***“Room for error – often called margin of safety – is one of the most underappreciated forces in finance. (...It is) anything that lets you live happily with a range of outcomes.” – Morgan Housel***

<sup>b</sup> Data were treated on a case-by-case basis and the estimates for the closing of 2022 and 2024 were taken from the consensus of analysts reported by Bloomberg /// EPS = earnings per share /// GDP and inflation (IPCA) estimates according to the Focus Market Readout.

The perception of the stock market being cheap or expensive will depend on each investor's individual assessment of how much premium they demand to face risks and seek opportunities. When investing in equities in Brazil today, you are likely to need to consider a higher tax burden, excessive leverage by households and possibly by the government. On the other hand, we will collect the rewards of six years of mostly positive macro and micro reforms in a context of global and local disinflation amidst a Chinese reopening that may help commodities.

After taking into account countless pros and cons, the incredible opportunity cost in Brazil emerges and stands out. In the case of fund managers, assuming an equity portfolio with an expected return of 10% in real terms, after typical management and performance fees, the result is an annual performance of 7.5% in real terms, or 1.3% per year higher than the yield of an inflation protected treasury note in Brazil, NTN-B, of similar duration. If we consider the high-quality tax-exempt corporate bonds instead of the inflation protected note, there may not even be a risk premium available. If we deem necessary some additional discount due to the uncertainties regarding the country's governance risk, only depressed prices will offer adequate safety margins for the risk-averse investor.

Such opportunity cost also affects financial expenses and suffocates companies and individuals who need capital. There is hardly any ROIC or income that allows for a weighted average cost of debt of CDI + 10% per year, when the CDI is 14%. Creating legitimate, populism-free conditions to achieve lower interest rates is essential, not only for the sustainability of government debt, but also for individuals and companies.

***"The pessimist sees difficulty in every opportunity. The optimist sees opportunity in every difficulty." – Winston Churchill***

With no challenge there is no overcoming. Despite countless uncertainties, if a minimal institutional framework is preserved, there will always be companies capable of growing, evolving, reinventing themselves and prospering. Although it seems increasingly difficult to move from exception to exception, markets are often hypersensitive and can generate special opportunities from the behavior of their participants.

Macro investment theses can induce thoughts of the one-size-fits-all type, where investors are blind to the specific characteristics of each company. Negative shocks from high interest rates or lower growth can cause first level thinking to prevail, as when investors disregard the companies' ability to pass on short-term hardships to stakeholders other than the shareholder. The losses incurred and the funeral environment can lead to stop loss without price criteria. It is hard to foresee where the opportunities for differentiated returns with adequate risk may emerge from, but this is what we spend our days evaluating and discussing in a transparent manner.

One of the great advantages of the public market is the availability of liquidity, the possibility to change one's mind and adjust the size of positions individually and continuously. Therefore, we can think in the medium term, act in the short term, without hiding in a utopian long term.



In order to climb the current wall of worries, we equip ourselves with the ability to form concentrated portfolios, to conservatively, diligently and fundamentally select the companies we wish to partner with, and a great deal of price sensitivity. During such climb, no matter what happens, we strive to find original paths, seeking to firmly fix our crampons and in no hurry to finish.

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