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INTERNATIONAL

SLOW AND STEADY WINS THE RACE The Tortoise and the Hare – Jean de La Fontaine

4 days out of 19. This is the number of days in which the S&P 500 closed higher than its end of October's level. One of these 4 days was the last trading day of the month, which means that the index posted a 7th consecutive monthly gain for the first time since 2021.

We must admit that this was a close call as the S&P500 eventually increased by a narrow 0.25% in November, similar to the tortoise in La Fontaine's fable that won a race against the hare despite being behind for most of the time.

With 15 trading days out of 19 in negative territory, you can guess that investors doubted significantly the AI rally's sustainability.

In our last monthly letter, we detailed our view on the potential AI bubble and it seems that investors tested the market with a 5.25% drawdown from peak to trough. This was brief though as the index climbed more than 5% in the last 5 trading sessions in order to finish the month in positive territory, sweeping away AI bubble fears raised by many investors.

However, the last trading sessions were not enough to allow the Magnificent Seven to recover in time as they lost an aggregate 1.1% in November, ending a run of 7 consecutive monthly gains.

The month was therefore quite calm on appearance as a 5% drawdown in an index is perfectly normal and healthy: some buying opportunities have to arise in order to allow under allocated investors to purchase equities.

Nonetheless, in November, Alphabet, Google's parent company, decided to threaten the almighty Al king, Nvidia. Ironically, earlier this year, investors had the perception

that Google was lagging in the Al race. In March 2023, Alphabet launched Bard which was then rebranded as Gemini in February 2024. At the time, many specialists claimed that Google search's business was at risk and that people, especially younger generations, would change to increasingly use ChatGPT. Gemini's next major version (Gemini 2.0) was previewed in December 2024, with general availability in 2025, and investor reaction was mixed regarding Alphabet's position in the broader Al race. In fact, Alphabet's stock price was practically unchanged between the beginning of the year and end of July whilst Nvidia and Microsoft were up 32% and 27% respectively.

Performance of the main financial indices since 2023:

	Nov.	Nov.\$	2025	2025 \$	2024	2024 \$	2023	2023 \$
S&P 500	0.25		17.8		25.0		26.3	
Stoxx 50	0.29	0.98	19.4	33.9	11.9	4.7	23.2	27.3
MSCI EM	-2.38		30.4		8.0		10.1	
SMI	4.90	5.03	14.2	28.7	7.5	-0.3	7.1	17.6
Euro - USD	0.53		12.0		-6.2		3.1	
US Dollar Index	-0.35		-8.3		7.1		-2.1	
Gold Spot - USD	5.91		61.5		27.2		13.1	
CHF - USD	0.08		12.9		-7.3		9.9	
Bitcoin	-16.92		-3.0		120.5		157.0	
Global Aggregate	0.23		7.9		-1.7		5.7	
US Aggregate	0.62		7.5		1.3		5.5	
US Treasury	0.62		6.7		0.6		4.1	
US T Bills	0.30		3.9		5.3		5.1	
Global High Yield	0.56		11.0		9.2		14.0	
Euro Agaregate	-0.08	0.34	1.7		2.6	-2.7	7.2	11.0

« THE WORLD'S MOST VALUABLE COMPANY WILL CERTAINLY NOT FALL IN THE SAME TRAP AS THE HARE DID IN THE FAMOUS FABLE OF LA FONTAINE. »

From July on, Google managed to convince investors that it was definitely going to take part in the AI race.

It first beat earnings' expectations in July and announced it would increase its capital expenditures in 2025 from \$75 billion to \$85 billion.

Then, in early September, a federal judge removed the Damocles sword hanging over Alphabet by ruling that Chrome would not need to be sold in the anti-trust case pending since 2020. This decision was essential for Alphabet as Chrome holds around two-thirds of market share in the browsers' addressable market and is therefore central to Google's distribution advantage in search and its ability to charge for advertising. The decision allowed Alphabet's share price to continue increasing as investors started to believe in the company's ability to play the Al game.

Finally, Google managed to convince investors that it was seriously competing in AI by launching Gemini 3 this month. The latest version of the LLM (Large Language Model) not only surprised the market by its quality, but also by its efficiency. Indeed, Google actually trained

the model exclusively on its own ASIC chips, named TPUs, rather than using Nvidia's GPUs. But, what do all these abbreviations mean?

ASICs, meaning applicationspecific integrated circuit, are a
kind of chip that is very efficient
and fast, but hard wired to do
the exact math for one type of
job. GPUs, meaning graphics
processing units, are a type of
chip that is able to do many
kinds of parallel math for
different AI workloads. In a
simple language, a GPU is like a
Swiss army knife whilst an ASIC is
a single purpose tool, like a
screwdriver or a cutter.

What about TPUs then ? The abbreviation comes from Tensor Processing Unit and is the name Alphabet gives to its ASIC chips, i.e. single-purpose tools. The fact that Google only used TPU for training its model could be a Sputnik moment as it may give ideas to other AI firms, the actual customers of Nvidia, to try to reduce their dependence on Nvidia's chips, the GPUs. The main advantage of the latter resides in its flexibility for the customer, but Google showed the way for using cheaper and less power-demanding chips by training its model on TPUs only.

Anthropic recently announced plans to have access to up to 1 million TPUs through Google Cloud. Reports suggest that Meta is in discussions with with Google to acquire a large quantities of its TPUs even though it already has its own ASIC chip named MTIA.

Investors rewarded Alphabet's achievement with an impressive price increase: the stock is now up 68% year-to-date. This reward incentivizes other companies to follow Google's example by creating their own ASICs; this is the case for Amazon with its Trainium chips and for Microsoft with its Maia chips.

Does this mean Nvidia is on the verge of a collapse? Absolutely not. It is true that the success of Gemini is threatening Nvidia's competitive advantage as other companies may want to reduce their dependence on GPUs. However, Nvidia currently dominates as the leading GPU platform for many frontier Al models, designing best-in-class GPUs that remain widely used across the industry. Moreover, there is a high cost of replacing Nvidia GPUs as those are tightly optimized around Nvidia's proprietary platform named Cuda. Finally, building its own custom ASIC chips is very expensive as it can cost as

much as a hundred million of dollars and is therefore an investment restricted to the biggest cloud providers as it not affordable for all the companies active in the AI space.

In conclusion, we believe that Google's new launch of Gemini is very positive for the company. The fact that it only used its own TPUs for training the model shows that LLMs can be improved whilst also gaining in efficiency and this is promising for the entire sector. However, it does not mean that Nvidia's story is at risk as the market is growing more than sufficiently for both the GPUs and ASICs to have success in the future. The world's most valuable company will certainly not fall in the same trap as the hare did in the famous fable of La Fontaine.

At the beginning of the month of November, the Investment Committee tactically implemented a tail risk protection for the equities' bucket valid until the end of the year without reducing the gross equity exposure. Nonetheless, we remain neutral on the asset class with an overweight in US technology, European industrials as well as global financials. We also have an exposure in the European and Swiss small & mid caps segments.



Eric HatisukaCIO Mirabaud Brazil

BRAZIL

THE UNBEARABLE LIGHTNESS OF UNEMPLOYMENT BELOW THE NAIRU

Milan Kundera, a Czech writer who became a naturalised French citizen after going into exile in that country during the Cold War period, died in 2023 at the age of 94. He wrote his magnum opus in 1984, entitled The Unbearable Lightness of Being.

It is a novel, not an economics textbook, of course, but its elegant title has been used extensively (and will probably continue to be) by this clumsy writer who addresses you, also an admirer of Kundera's work, when paraphrasing situations in which macroeconomic variables operate outside their long-term or "natural" equilibrium.

In fact, perhaps the most elusive economic concept to most people is precisely that there is a level of equilibrium for macroeconomic variables, and that the consequences of operating out of these levels tend to be harmful in the long term.

The economic equilibrium between supply and demand is the simplest to understand, and the consequences of deviations from it are the most obvious and straightforward: if supply exceeds demand, all other things being equal, the price falls in response; and vice versa, if demand exceeds supply, the price rises in response.

However, what is often lost in the economic debate is that, in absolutely all macroeconomic variables, there are situations of equilibrium, characterised precisely by a balance between supply and demand in each particular market; and that, in each of these situations of imbalance, their unbearable lightness will, sooner or later, be materialised in one way or another, and the outcome is unlikely to be benign.

The labour market is still a market like any other, but it has some very unique characteristics.

The main one is that, anywhere in the world, laws prohibit workers' wages from being reduced, which leads to situations where adjustments originated from sharp drops in demand for workers will be made in "quantity" rather than in "price".

In the event of an economic recession, for example, the result is a rapid increase in the unemployment rate, since wages cannot fall in response to lower demand for workers.

In the case of the labour market, the limit of its equilibrium is known by the acronym NAIRU, which stands for Non-Accelerating Inflation Rate of Unemployment, also known as the economy's Natural Rate of Unemployment.

The logic is that if the unemployment rate falls below the natural rate, the NAIRU, there will be inflationary pressure on the economy, since labour is a basic, crucial and necessary input for absolutely all goods and products offered in an economy.

This means that, once a certain level is reached, the unemployment rate stops falling in response to economic growth and, if demand continues to rise, any wage increases applied

to the workforce will be passed on to the final prices of products and services, generating widespread increase in inflation in this economy.

The problem faced by economists and economic policymakers is that the NAIRU is an unobservable variable and therefore impossible to predict a priori, i.e., before it is too late.

With the aid of statistical tools and extensive academic research, theoretical economists have developed a set of techniques, known as econometrics, to make inferences that indicate, if not the exact value of the NAIRU, at least the mathematical region most likely to be found.

In fact, in order to reduce an economy's NAIRU, ensuring that unemployment can reach increasingly lower levels without causing widespread increase in inflation, a more structural (and less cyclical) approach is needed, i.e., reforms that increase the total productivity of economic factors and/or reforms that allow for greater labour market flexibility, reducing friction between hiring, firing and the use of temporary labour. This improves the overall efficiency of the economy or at least that of the labour market in particular.

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What is not the result of a choice cannot be considered either merit or failure. (Milan Kundera, in The Unbearable Lightness of Being)

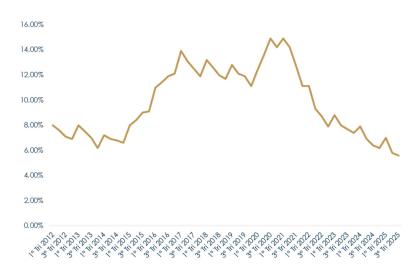
Once again, to paraphrase Milan Kundera above, "the direct consequence of a choice must be considered merit or failure."

Econometric studies indicate that the unemployment rate equivalent to the NAIRU in Brazil, expressed in terms of the Continuous PNAD (Continuous National Household Sample

Survey, prepared by the IBGE), is, in the most optimistic scenario, in the range next to 7.0% of the workforce.

However, the unemployment rate recently released by the IBGE showed that the unemployment rate reached a historic low of 5.4% of the workforce, which is certainly very good news, but which should, in tandem, raise a red flag for Brazilian economic policymakers, especially the Central Bank.

Unemployment Rate



Source: IBGE

This is because, when the unemployment rate remains below the NAIRU for a long time, it greatly increases the risk of the economy developing greater inflationary rigidity and positive inflation asymmetry in response to possible supply (inflationary) shocks, increasing their impact and amplifying their spread across the economy's price structure.

The prolonged permanence of the unemployment rate below the NAIRU therefore results in increased upward pressure on the base interest rate (and higher long-term interest rates), thus increasing the cost of credit and, consequently, the risk of a slowdown, recession or even idiosyncratic episodes of major bankruptcies due to excessive indebtedness in the most leveraged companies.

Ultimately, by disregarding the role of NAIRU in labour market dynamics, a government may end up achieving exactly the opposite of what it intended: a sharp rise in unemployment due to a recession caused by higher interest rates required to control price inflation, which will have been originated, fundamentally, in this hypothetical case, by the very increase in wages above the total productivity of the factors of the economy, which is exactly what the NAIRU limit represents.

PERFORMANCE OF THE MAIN FINANCIAL INDICES:

Renda Fixa		28/11/25	MTD	3M	YTD
CDI	-	97,08	1,05%	3,48%	12,94%
IMA-B	-	10.904,79	2,04%	4,17%	12,82%
IMA-B 5	-	10.540,21	1,08%	2,85%	10,60%
IMA-B 5+	-	12.132,77	2,80%	5,22%	14,42%
IRF-M	-	21.540,45	1,67%	4,48%	17,86%
IMA-S	-	8.034,73	1,06%	3,51%	13,16%
Índices Globais	País	28/11/25	MTD	3M	YTD
Ibovespa	BRL	159.072,13	6,37%	13,35%	32,25%
Dow Jones	USD	47.716,42	0,32%	5,34%	12,16%
S&P 500	USD	6.849,09	0,13%	6,76%	16,45%
NASDAQ	USD	25.434,89	(1,64%)	9,49%	21,05%
Euro Stoxx 50	EUR	5.668,17	0,11%	7,13%	15,77%
FTSE 100	GBP	9.720,51	0,03%	6,62%	18,93%
MSCI Emerging	EM	54,32	(1,77%)	9,03%	31,15%
MSCI World	World	4.398,44	0,18%	6,16%	18,63%
Moedas	País	28/11/25	MTD	3M	YTD
Dólar/Real	USD	5,34	0,77%	2,38%	13,64%
Euro	EUR	1,16	0,53%	(0,36%)	12,01%
Franco Suíço	CHF	0,80	0,08%	0,08%	12,87%
Libra Esterlina	GBP	1,32	0,63%	(1,19%)	5,74%
Bitcoin	BTC	90.914,64	(16,92%)	(18,41%)	(2,99%)
Hedge Funds	País	28/11/25	MTD	3M	YTD
Ind. de Hedge Funds	BRL	6.089,66	1,38%	4,71%	14,71%



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