Absoluto Partners
+55 21 3554-8151
contato@absolutopartners.com.br

Dear Investors,

Looking back on 2022, we continued to witness some of the side-effects of the pandemic, particularly unrelenting inflation. In addition to the 2021 impacts previously discussed such as (i) supply chain disruptions (ii) excess government stimulus and (iii) Central Banks of developed countries which were slow to react; the unfortunate conflict between Russia and Ukraine, two large commodities exporters, added fuel to the fire, and exacerbated an already complex and fragile global situation.

As a result of these factors, we saw the largest increase in interest rates in the United States over the last 40 years, with the benchmark rate already up 450bps and with more to come. Naturally a shift of this magnitude in discount rates had a significant impact on equity valuations, particularly in longer-duration assets.

The situation was slightly more favorable in Brazil, as the Central Bank was earlier in the journey of tightening monetary policy to combat inflation, even if this was in partly influenced by temporary measures. However, the challenging global backdrop described above was still a significant headwind for domestic assets.

We also observed pronounced distortions between sectors, due to some of the events mentioned above – particularly the persistent mismatch of supply chains with demand, and the resulting price increases in raw materials and commodities which directly benefited companies with commodities exposure. Gerdau for example reached a record >R$20 billion EBITDA in both 2021 and 2022, despite never having reached double digit EBITDA in the prior decade. At the same time, companies whose cost structure relied on these raw materials were forced to absorb such impacts, putting significant pressure on their margins.

Despite this challenging global backdrop, we decided to reopen our fund in July 2022, almost two years after previously closing it in September 2020. At the time, we saw extremely attractive valuations in many of our core holdings (many of which we believed were in a better competitive position than pre-pandemic), and viewed the opportunity set as an attractive entry point.

Finally, we would be remiss not to mention the Brazil elections – after a turbulent election process in which we saw unprecedented polarization, a new government was confirmed. Despite a left-leaning approach to the economy, our view is there will not be major changes to the trajectory of the country.

Regarding Absoluto Partners, we continued to grow and have reached 30 members across our offices in Rio de Janeiro and Greenwich, Connecticut. While we are only beginning our fourth year as a company, it feels like we have all lived through much more together with all that has happened in the world in the past few years – the pandemic, supply chain disruptions, stubbornly high global inflation and a war in Europe.

For the topic of this letter, we made the unusual decision to focus on a specific company. Typically we prefer more discreet discussions on individual names with our investors; however, since this was our first private investment, and given our close involvement with the company from the early days, and considering the market's many divergent views on the company's fundamentals, we made an exception to discuss Nubank – one of the most interesting corporate stories we have encountered.

+55 21 3554-8151
contato@absolutopartners.com.br

NUBANK: LEADING THE TRANSFORMATION OF THE BRAZILIAN FINANCIAL SYSTEM

Nubank was founded in 2013 with the mission to address customers' well-known pain points when interacting with Brazilian financial system. The founders David Vélez, Cristina Junqueira and Edward Wible started by tackling the biggest challenge first: extending unsecured credit. In the early years, Nubank offered only a credit card product, gradually working to improve the customer experience and developing in-house underwriting capabilities. However the ultimate goal is and always has been to offer a full suite of major financial products and services (and now to go beyond that).

While most market participants focus on Nubank's revenue growth prospects, we believe, counter-intuitively, that the most powerful component of Nu's business model is in fact its cost structure, which is a fraction of the incumbents'. Nubank's more efficient unit economic model allows it to not only offer cheaper products and services to customers, but to do so at higher levels of profitability. The Company's main competitive advantages include its exceptional executive team, a strong culture characterized by experimentation and intellectual honesty, best-in-class proprietary technology and one of the most admired brands in the region.

Accelerated growth and highly engaged client base

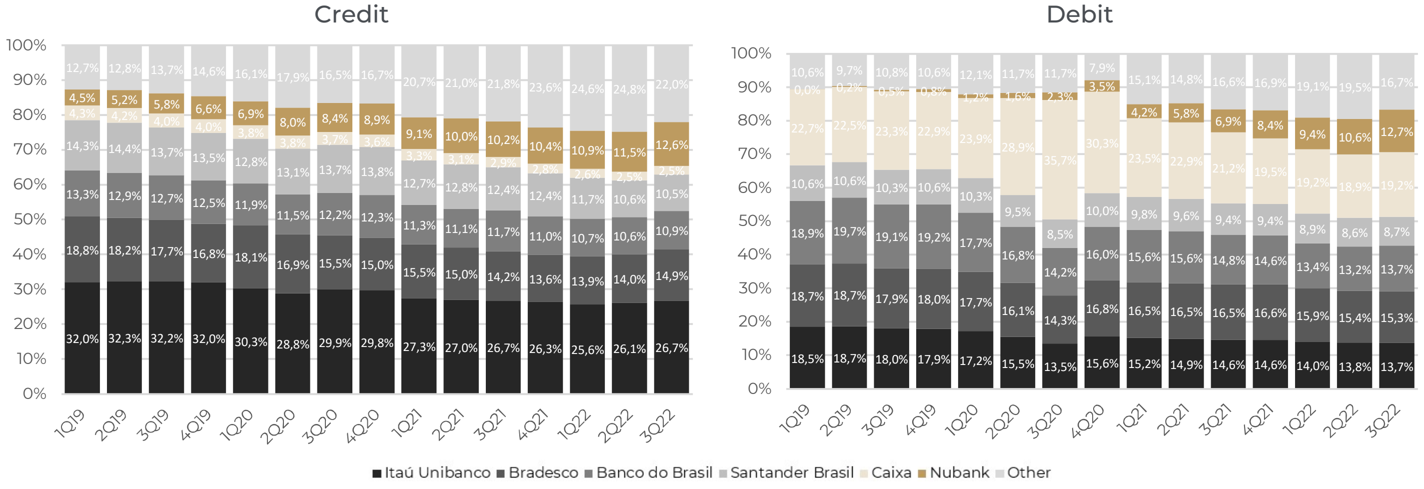
Nubank has consistently exceeded expectations with the growth of its customer base. To put this in perspective, they added almost 20 million customers in the last twelve months [1] to reach a total of 75 million customers, representing more than 40% of the adult population in Brazil. Due to their unique scale, the bank has access to a large and growing pool of customers it can offer a diverse set of products and services to and continue gaining share within the financial services industry. Just as important, Nu has successfully established a high level of engagement with its user base, becoming the primary bank for more than 50% of its customers after just twelve months of opening their checking account [2]. Third party data providers suggest Nubank has similar levels of engagement as the incumbent banks, and much higher than other competing fintechs.

Such high level of engagement is further evidenced in their market share gains of debit card transaction volumes, which we believe is even more indicative of their prevalence in the financial system. We believe this metric is a direct proxy for consumers' preferred checking accounts. We prefer this measure to credit card share, as institutions' different appetites to extend credit can distort the engagement metrics, but the conclusions for Nubank are similar – in both cases they already have more than 12% market share, above some of the major incumbent banks even.

[1] Growth of the last 12 months until 3Q22.

[2] 'Primary banking account' refers to Nubank's relationship with those customers who had at least 50% of their post-tax monthly income transferred out of their NuAccount in any given month, excluding self transfers.

Market share of total payment volume (TPV)



Source: Absoluto Partners, Brazilian Central Bank, company data.

We believe Nu's investment thesis can be defined as a "cost play" rather than a "revenue play" – its success comes from capturing a share of the revenue pool at significantly lower incremental cost than incumbents. This unit economic cost advantage is then passed through to customers, allowing Nubank to offer more attractive prices and a significantly differentiated value proposition, which in turn drives market share and creates a virtuous cycle.

The unit economic cost advantage comes from four areas: (i) cost to serve, which is a fraction of incumbent banks', (ii) cost of credit, becoming increasingly attractive compared with peers, (iii) cost of customer acquisition, with ~80% of new clients originating organically to Nubank, despite the large and fast-growing user base, and (iv) cost of funding, which is just recently becoming more competitive due to the change in remuneration of NuConta. This more efficient cost structure should yield a new paradigm of higher profitability and returns previously unseen in our industry. Further, this cost advantage is what enables the Company to acquire a new customer relationship despite initially low credit limits, an important part of their success in credit to date. In addition, Nu strictly dedicates use of its own balance sheet in businesses with high return on capital, such as credit card and personal loans, resulting in a higher consolidated ROE due its more efficient use of capital.

Of the four cost levers described above, we view cost to serve as the biggest competitive differentiator. For context, Nubank's cost base is around R$9bn/year [3], while the retail operation of Itaú (excluding asset/wealth management, wholesale and LatAm), which we consider to be one of the most efficient among incumbent banks, is R$38bn/year. This difference of almost R$30bn exists despite both having a similar number of clients, and despite Nubank having more checking account holders [4]. While Nubank's costs will certainly rise as they continue to drive penetration of products and offer incremental services, we expect revenues to grow significantly faster than costs, particularly as we believe much of the cost structure to serve customers is already in place.

[3] 3Q22 data annualized.

[4] 49.2mi NuConta active clients vs. 34.1mi debit card and checking account holders from Itaú.

+55 21 3554-8151
contato@absolutopartners.com.br

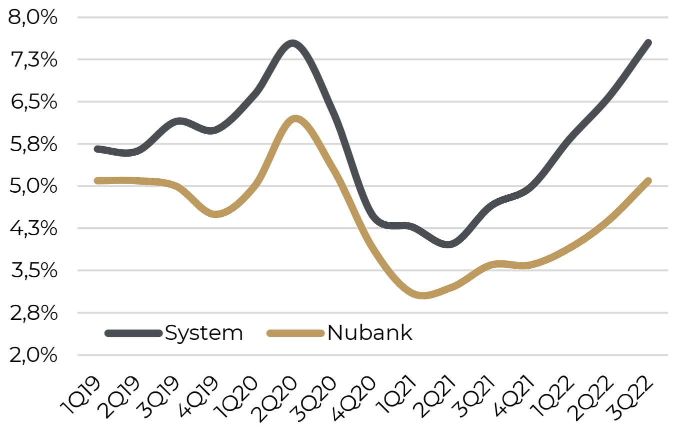
Credit underwriting capacity put to test

Further, our conviction in Nubank's unique credit origination, which is essential for their engagement levels and profitability, is growing and showed great resilience during a challenging period for the industry. It is important to highlight that our analysis is based on the credit card product, in which Nu has a longer track record proven through various credit cycles, making for better comparison with the rest of the industry.

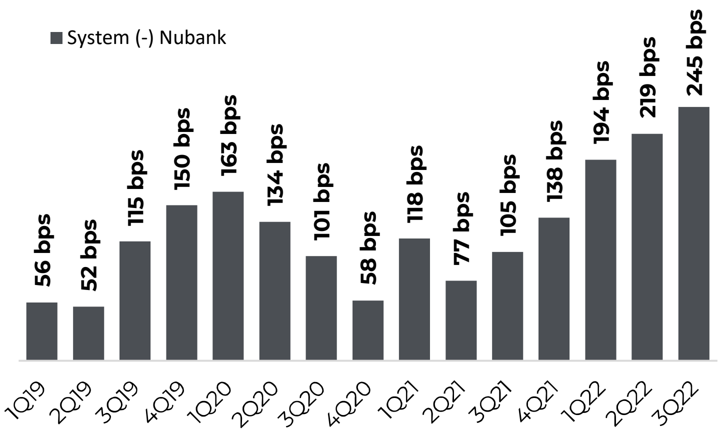
Also worth highlighting that in addition to credit cards, most of Nubank's clients are also customers of their ancillary financial services, including checking accounts. Further, it is common for the credit card product to be offered only after the individual has engaged with Nubank in other products, which helps avoid adverse selection or "credit hunters". The superior user experience drives higher engagement and willingness to pay, even dating back to when the credit card was the Company's only product. Finally, a "low and grow" strategy centered on initially offering low credit limits and thereafter increasing limits as creditworthiness is proven, the differentiated technology behind their credit models and a culture centered around continuous A/B testing are all drivers behind their credit underwriting success.

The combination of these factors help explain the substantial difference in asset quality and performance between Nubank and the rest of the credit card industry. The spread between Nubank's NPL 90 vs the industry reached 250bps in 3Q22 (7.6% for the industry vs. 5.1% of Nu), higher than the 150bps spread pre-pandemic (6.0% for the industry and 4.5% for Nu).

NPL 90 of credit cards



NPL difference between System and Nubank



Source: Absoluto Partners, Brazilian Central Bank, Nubank.

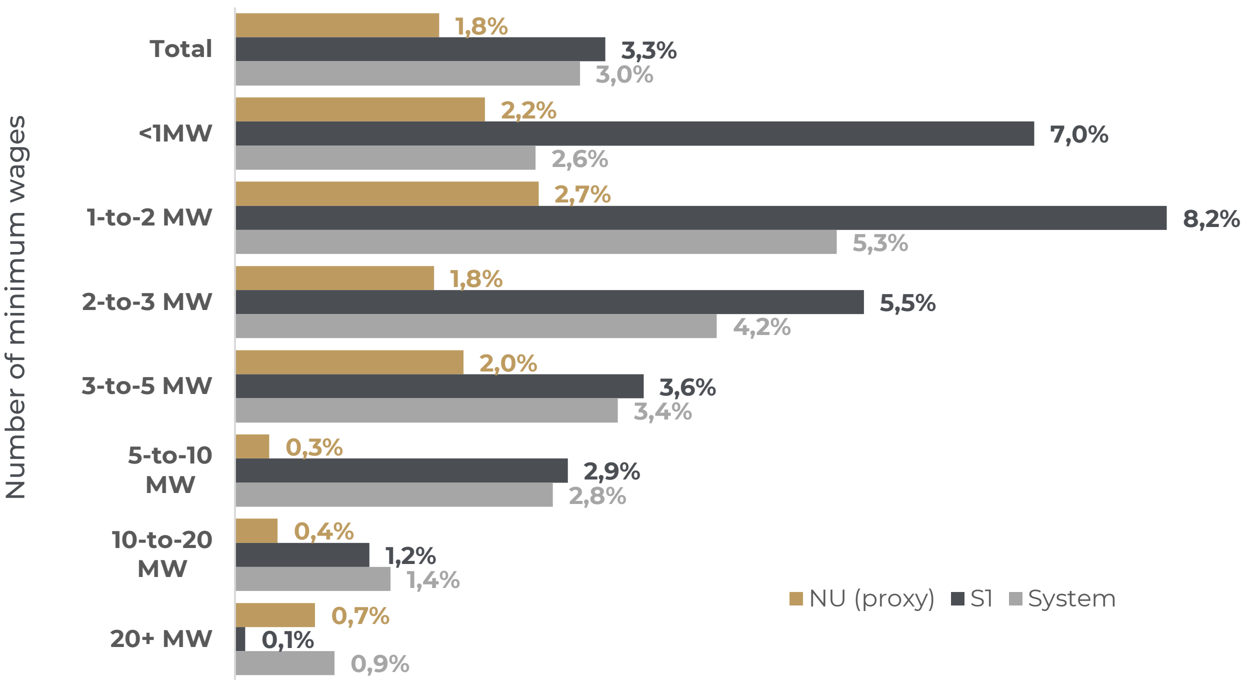
Absoluto
Partners

+55 21 3554-8151
contato@absolutopartners.com.br

To further highlight this differential, the last couple of years saw many incumbent banks attempting to extend credit in the "open sea", however, most of these initiatives have been considered failures by now. We believe the wave of attempts to enter this market was driven by a favorable environment of atypically low default rates following the pandemic, as well as in reaction to defend share due to Nubank's success. We observed incumbents and new entrants growing at multiple times the rate of new card issuance, especially in the middle of 2021. Today, many of these players are suffering from very high default rates and have significantly pulled back on originations.

The lack of success among the big banks can be explained in part by macro factors, such as the disproportionate impact of inflation among low-income consumers, but importantly by the lack of attributes which contributed to Nubank's success, such as the "low and grow" strategy, as well as a lack of appreciation for the importance of high engagement in determining asset quality. Given this influx of competitors, Nubank's competitive differentiation was put to the test, and subsequently proved even stronger than we had imagined. The graph below illustrates how Nu experienced more moderate deterioration in default rates compared with the main banks in Brazil (which compose the S1 segment) in 2022, especially in the lower income brackets. Even if the incumbents continue to imitate and react to Nubank's share encroachment, we believe the backdrop favors continued accelerated share gains for Nu over the next few years.

Change in the problematic asset index of credit cards since january/2022 [5] [6]



Source: Absoluto Partners, Brazilian Central Bank.

[5] We use the S3 non-banking segment as a proxy for Nubank, as the company represents over 80% of the segment according to the SCR Brazilian Central Bank data. Nubank publishes graphs based on internal data that corroborates the NPL trend by income bracket.

[6] The Brazilian Central Bank considers problematic assets the credit operations that are 90 days overdue and the operations that have signs that the obligation will not be fully honored.

De-risking of personal loans

The success of the credit card product proves not only the modelling and testing capabilities of the company, but also the strong engagement of its client base and the effect that in turn has on asset quality. This, to us, reads as a leading indicator and suggests Nu can also be successful in its personal loan product. Even though the potential of this product is the topic of much debate (including questions around the addressable market), we believe that its economic viability has been proven. In fact, terms are very low duration (6 months on average), so the cohorts from 2019 (product launch date) through 2021 have already experienced an entire credit cycle, including amortization, and should be indicative of the product's prospects. These completed credit cycles, albeit in a favorable credit environment, gives us confidence in the value creation and cashflow generation of the personal loan product.

Worth noting that Nubank only offers the personal loan product to credit card clients who have used the product for at least six months. This criteria is very important for many reasons – first, to avoid the product being used for the purpose of "rolling" credit card debt (clients are only eligible once they have proven their ability to pay down debt). Second, the transactional data from card transactions are an important input for credit algorithm modelling. Finally, since credit card clients are usually engaged customers, the personal loan does not have an "open sea" nature, once again highlighting Nubank's competitive advantages, which lead us to believe they have the right attributes to be a relevant player in this category.

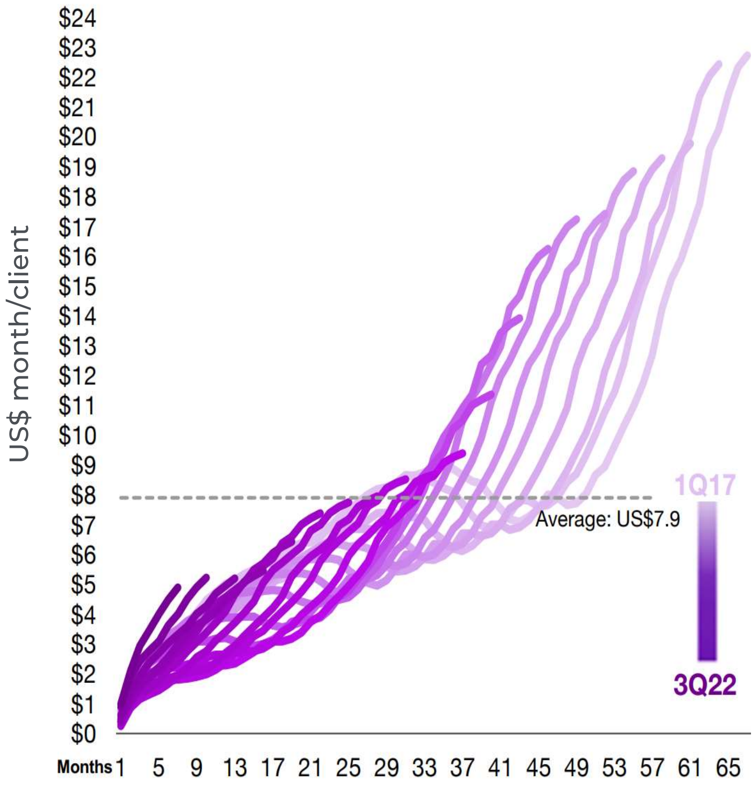
Operational leverage

Nubank's lean cost structure allows the Company to achieve higher profitability, as revenue per client scales with a maturing customer base and new products and ancillary services are introduced. As an example of the potential revenue increase, the average revenue per customer today is US$7.90/month, and compares with US$20/month for older cohorts, which continues to grow. The ongoing increase in average revenue per client is driven in part by clients migrating their primary banking relationships over time to Nu, as well as Nubank tending to slowly increase credit limits as the client's creditworthiness is established. Thus, revenue per customer should continue to grow over time, while the cost to serve, which is mostly fixed, should remain stable (below US$1/month), driving high incremental operational leverage.

In addition to the existing customer base maturing and scaling with existing products, new products (cross-sell) should also drive incremental revenue growth. For example, we expect Nubank to launch payroll loans in the first half of 2023, for which its direct online distribution capabilities should drive very high returns on capital as they have disintermediated third parties. We also expect migration of investment products from Easynvest to Nubank to accelerate growth of assets under custody, which has already gained traction with the "Money Box"[7]. Lastly, management has recently been more vocal on potentially offering non-financial products and services, which is further opportunity to monetize its unparalleled scale of traffic and engagement on its platform

[7] "Money box" is a tool to save money in an organized and customized way, according to the objectives of each client..

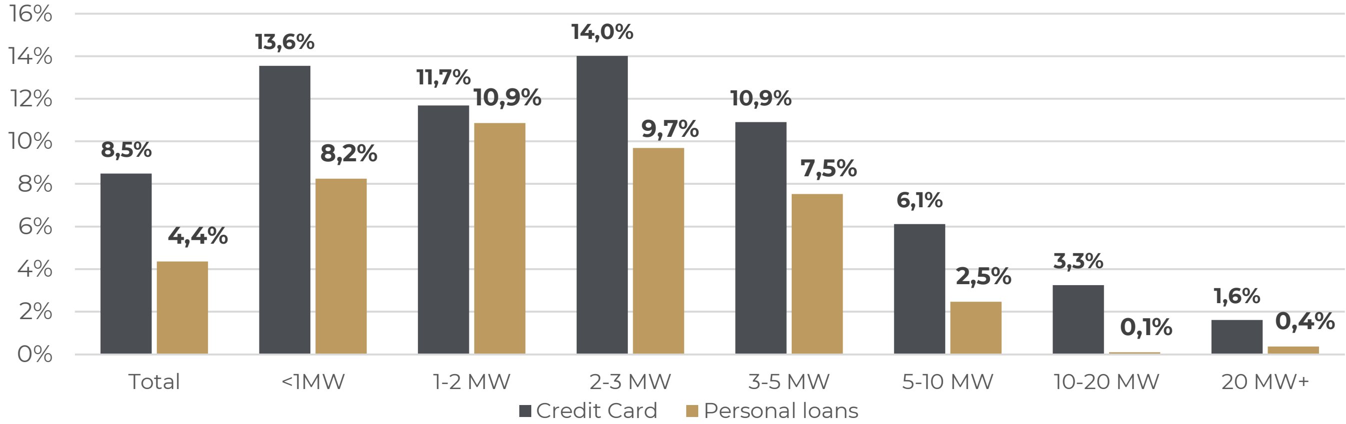
Average revenue per client per client addition cohort



Source: Nubank.

One common bear thesis on Nubank centers on their supposed dependence on the low-income segment and the monetization challenges that this cohort brings. We recognize that Nu has not yet successfully penetrated the high-income segment, which has been one of management's main goals since the launch of the "Ultravioleta" segmentation. With that said, it's important to highlight that this segment represents less than 25% of credit card balances in the system, implying plenty of growth potential remains in the core segments the Company already addresses. And while the average purchasing power of Nubank's customer base is lower than the industry, the market share trend in cards confirms the importance of this customer segment within the financial system, irrespective of the lower average volumes.

Market share of credit by income bracket of Nubank



Source: Absoluto Partners, Brazilian Central Bank, Nubank.

Absoluto
Partners

+55 21 3554-8151
contato@absolutopartners.com.br

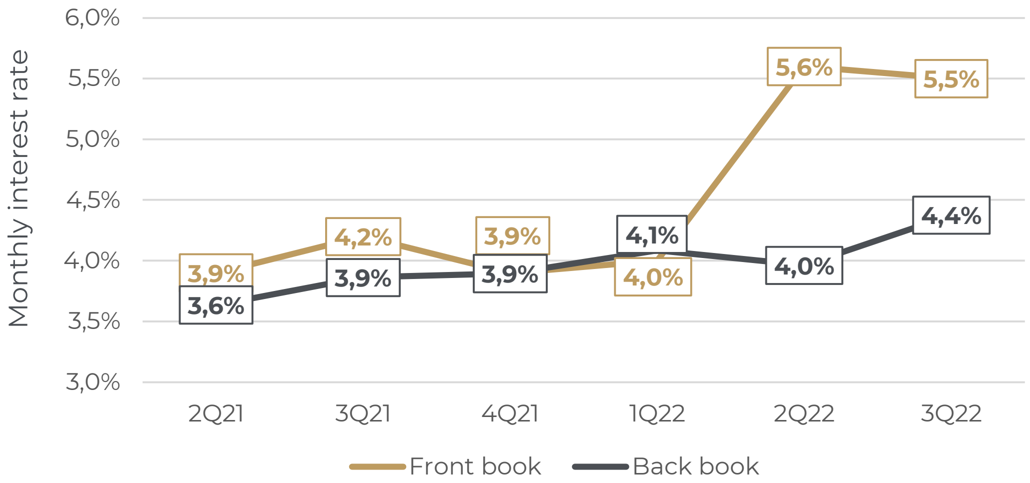
Earnings power

Determining Nubank's earnings power is challenging because there are no similar, mature peers in other geographies, and the nature of their business model has almost no precedents. We believe that Nubank will gradually show operating leverage in its future results, enabled by the following levers:

1. Cost of funding: A driver of improved cost of funding has been the recent change in the remuneration of the NuConta. With the updated structure, the balance that stays in the account for less than 30 days is no longer remunerated, allowing Nu to capture the spread when money is withdrawn from the account quickly. We do not expect any significant impact on engagement or customer satisfaction because (i) the value proposition of remunerating 100% of CDI after 30 days is superior compared to incumbent banks, (ii) the remuneration of the balance under 30 days was subject to very high IOF (financial transaction tax) and, therefore, the actual financial benefit for the customer was much lower than 100% of CDI, and (iii) the change occurred at the same time that the product "Money Box" was launched, which encourages customers to save money for specific financial goals, and which was very well received. The ability to unlock this profitability lever without compromising the customer's experience (potentially even improving it) illustrates how a genuine focus on the customer (a "customer-first" mindset) can be aligned with shareholder return.

2. Repricing of loan book: Nubank repriced the interest rate on personal loans in the middle of 2022 (from ~4.0% to ~5.5%) due to a combination of (i) an increase in the Selic rate, (ii) deterioration of the macroeconomic outlook higher expected loss and (iii) competitor moves. The increase in the interest rate on originations ("front book") takes a few quarters to reflect in the portfolio ("back book") – as the repricing flows through in subsequent quarters, revenue should increase without any corresponding increase in cost.

Front book and back book of personal loans



Source: Absoluto Partners, Nubank.

3. **Provisioning normalization:** Nubank employs expected loss provisioning accounting, which means it provisions upfront for all forecasted expected losses on volumes originated. When originations are growing very fast (as is the case today), the size of the provision corresponds to the incremental origination growth in the period, while the revenue recognized relates to the average loan book of that period, which in turn is a function of the lower origination volumes from prior quarters. This timing mismatch is accounting driven, and not underlying fundamentals. We attempt to adjust for this timing mismatch by assuming the provision expense associated with the average loan book of the period is equal to the NPL creation in that period [8]. Supporting this approach, the provision expense, NPL creation and default rates of the incumbent banks are historically very similar – and so it is common to adjust this way to arrive at an underlying and recurring figure.

4. **Mexico and Colombia's profitability:** Nubank's Mexico operations, as well as its Colombia operations, have a significant negative impact on Nubank's financials. We estimate the negative contribution to the bottom-line is around hundreds of millions of reais each quarter. However the negative contribution from these new geographies is not a structural detractor from long-term earnings power, we believe they are temporary given the initial high losses are a function of the earlier stage of the business in these new geographies. Further, as we will discuss below, we are quite constructive on the potential for geographical diversification and upcoming returns on these regions.

5. **Contingent share awards (CSA):** David Vélez's compensation package included share grants contingent on achieving certain market capitalization targets, which had a significant accounting impact on their last results. The first part of this program should have a smaller accounting impact in the coming years, while the second part was recently cancelled.

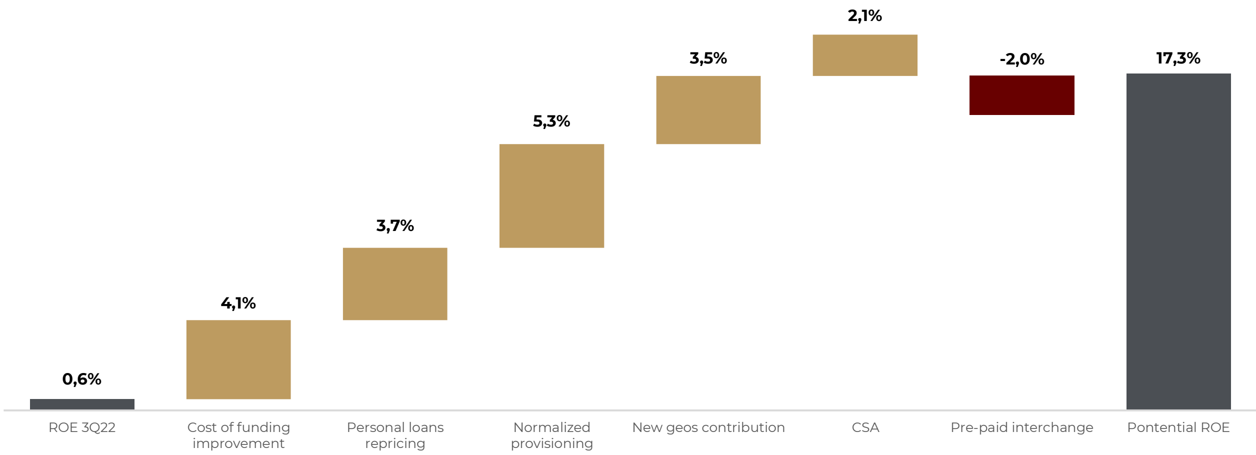
6. **Pre-paid interchange:** On the negative side, the Brazilian Central Bank introduced a cap on pre-paid card interchange of 0.7%, that will become effective in April, 2023.

Even if these levers are not fully captured in the coming quarters, they underscore the true underlying profit potential of Nubank. As an example, if these drivers had been fully realized in 3Q22, we estimate that the ROE would already be around 20% - and this is even with a still inefficient capital structure. Considering only the necessary capital required for Nubank's Brazilian operation, we estimate the returns over the last few months would already be north of 50% [8]. On top of these underlying profitability levers, we believe Nu will continue growing its customer base, launch new products and services and continue to gain traction in new geographies, which will eventually lead the financials to even more impressive levels of profitability.

[8] Nubank's operation in Brazil is under the prudential conglomerate Nu Pagamentos. According to the data from the Brazilian Central Bank, the conglomerate had R$5.0bi of equity and a net income of R$244mi in nov/22.

+55 21 3554-8151
contato@absolutopartners.com.br

Earnings power estimate of the Brazilian operation based on the 3Q22 result



Source: Absoluto Partners, Nubank.

Encouraging first signs from Mexico and Colombia

Nubank was conceived as a "platform", with a core technological architecture underpinning every product and service, which are in turn built modularly as microservices. This gives them much more agility in testing, iterating and adapting products to new geographies, reflecting the founders' ambition to build a global bank. To give a flavor of this competitive advantage and the resulting economies of scale as they expand internationally, the code behind the checking account product in Mexico is >95% shared with the Brazil product.

Nubank launched its credit card product in Mexico at the end of 2018, and the product already has more than 3 million clients. To put the impressive pace of this progress in context, Brazil Nubank "only" had 1 million clients three years after starting operations there. This accelerated growth was a result not only of having abundant capital available, but importantly also of the pace of development which was enabled by their platform architecture, previously already developed for the Brazil market. Further, various of the credit card's features which launched in Brazil in just the last few years have already been rolled out and made available in Mexico (such as: adjustable limits and payment day, virtual card, availability in e-wallets, installments for specific purchases, interest-bearing installments, etc). In Colombia, the growth has been even more impressive, already reaching 400,000 customers since the launch in August 2020.

Absoluto
Partners

+55 21 3554-8151
contato@absolutopartners.com.br

We are especially constructive on Nubank's expansion potential in Mexico. First, we believe the attractive customer engagement level in Brazil and established underlying profitability serve as proof points of their potential in other geographies. Further, this frontier market has favorable underlying characteristics: the penetration of credit card and financial services in Mexico materially lower than in Brazil. We also estimate the credit card product in Mexico is more profitable given the high volume of interest-bearing installments, and a younger population also makes Mexico a favorable market. Finally, we believe the competitive landscape is more benign, with a more concentrated market, less prepared incumbents and less capital available for new players. These market attributes should lead Nubank to drive even higher consumer value proposition.

Reflections about valuation

Since we first started discussing Nubank internally, still as a private company, the primary debate generally centered around valuation and less so around business fundamentals – as our conviction in the viability of the business model, competitive moats and growth potential of the business have been sound since the start. Despite these favorable underlying fundamentals, it is important to closely reflect on valuation. The gap between current and potential profitability, and the absence of a comparable, mature public peer makes valuing the Company even harder, especially in the current environment in which investors are more focused on short-term profitability over long-term growth. However, the significant operational leverage we expect, as well as the short- and long-term drivers already discussed should result in sufficient levels of profitability for traditional metrics (including P/E) to be considered.

Optically the P/B multiple may seem high, particularly when compared with incumbent banks. However, we believe high ROEs should translate to higher multiples, especially when a company has the ability to reinvest profits back into the business at a similar rate of return, as we believe is the case with Nubank due to its low market share. The incumbents on the other hand not only have lower ROEs than what we believe Nu will eventually achieve, but also are forced to distribute most of their profits back to shareholders since they don't have enough opportunities to reinvest at returns above their cost of capital (which would in turn increase their value and justify a higher multiple). To illustrate the importance of return on capital and reinvestment runway, a 30% ROE fully reinvested would drive 4x the book value in 5 years, while a 20% ROE with a 75% payout ratio would result in only 30% growth in book value in 5 years (with an accumulated dividend yield of around 80%[9] in that period). Qualitatively Nubank's brand equity, ability to acquire new customers at low cost (LTV / CAC of 30x[10]), technological advantages, unparalleled culture aligning credit discipline with innovation, and a top-tier executive team justifies Nubank's market value being above net asset value.

[9] Considering reinvestment of dividends at a 12.5% rate..

[10] The relationship between lifetime value (LTV) and customer acquisition cost (CAC) is used to analyze the growth sustainability. Numbers above 3x are usually considered good.

Nubank's success is not only important to us from an investment perspective, but also has material implications for the entire Brazilian financial system. Proof of the business model's potential, coupled with ongoing market share gains due to its attractive value proposition (across an ever-growing list of businesses) should accelerate the challenge incumbent banks face in managing their bloated cost structures, which are in most cases supported by unsustainable revenue lines (e.g. incumbent banks still make billions of reais in revenue from checking account fees and card annuities). Indeed we wonder if we are not already seeing this process materializing, in light of the difficulties we have seen at certain players who seem to not yet have found the best way to face this new competitive landscape.