

VIVARA

TEAM 2



2022

CFA Institute

RESEARCH CHALLENGE

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Vivara at a glance

Vivara is the largest jewelry retailer in Brazil

VIVARA Sources

Vivara IR

Company overview

Vertically-integrated

Conipa

Tellerina



Market leader | 321 stores

Sells gold, silver and gems

1

Revenue per product

(as of 3Q22)

54.9%

VIVARA

30.4%

Life
VIVARA

14.7%

Others

2

Revenue per sale channel

(for 9M22)

VIVARA

79,1%



7,4%



1,7%

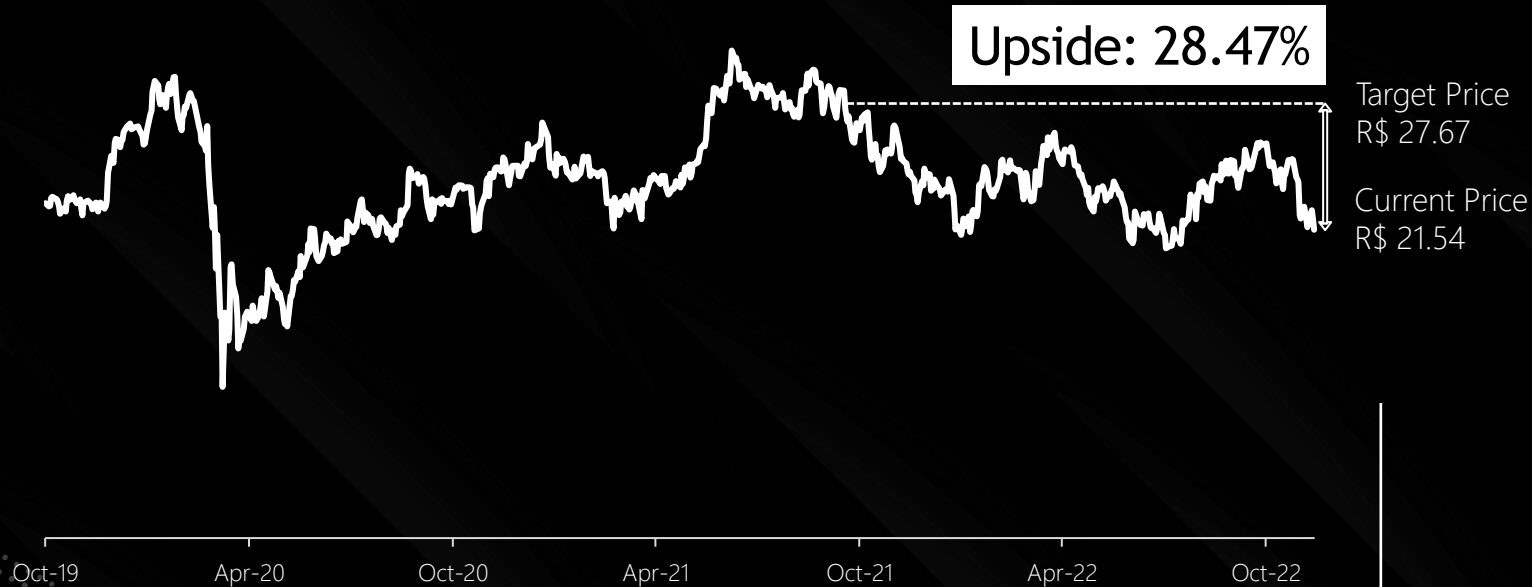


11,9%

3

Is it time to engage?

VIVARA



BUY

Recommendation based on:

◆ DCF = R\$ 27.67

Current Price: R\$ 21.54
Upside: 28.47%

◆ 5-Year IRR: 19.0%

Ke = 15.0%
Spread TIR-Ke: 4.0%
Nominal IRR

VIVARA



Is it time to engage?



Charming Industry



Brilliant Business Model



Forging The Sector Consolidation

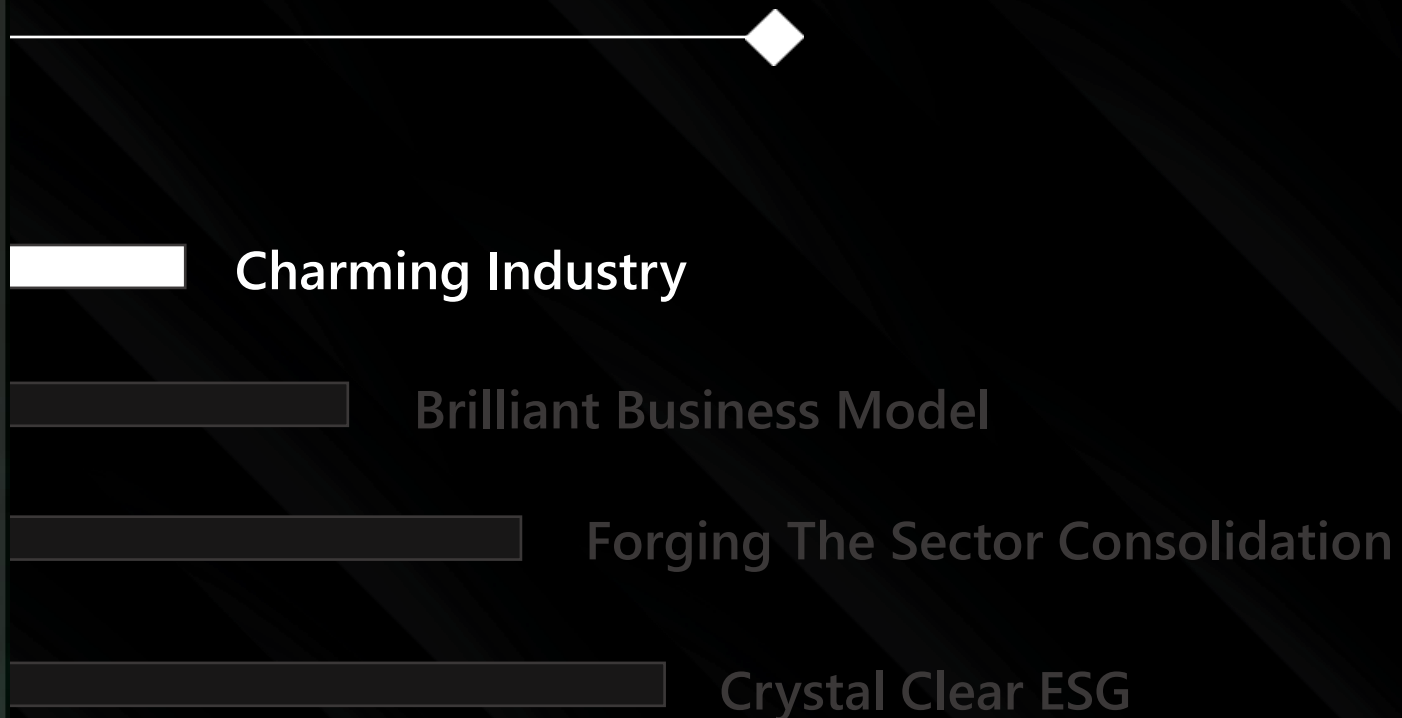


Crystal Clear ESG

VIVARA



Is it time to engage?



Far from a high-growth industry...

The jewelry sector probably won't show an incredible growth, but that is not a barrier for investing in Vivara

A charming industry

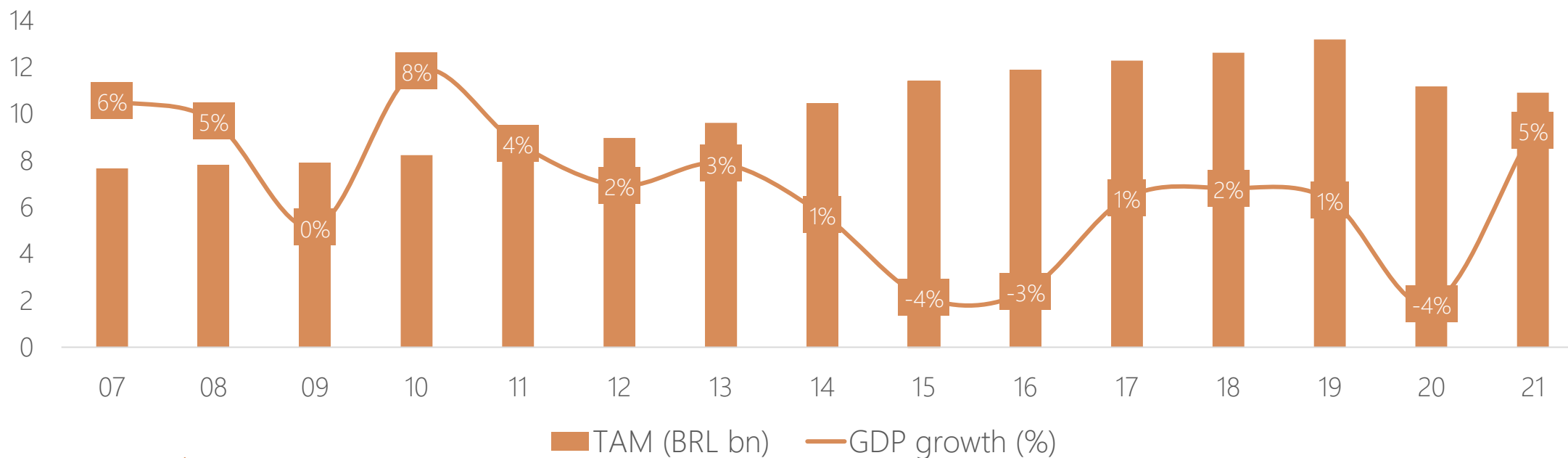
CAGR 07-21 = 2.6%

Definetly, it is not a high growth industry...

So, why is it a charming sector?

Resilient & Fragmented

Market size, [BRL mm]



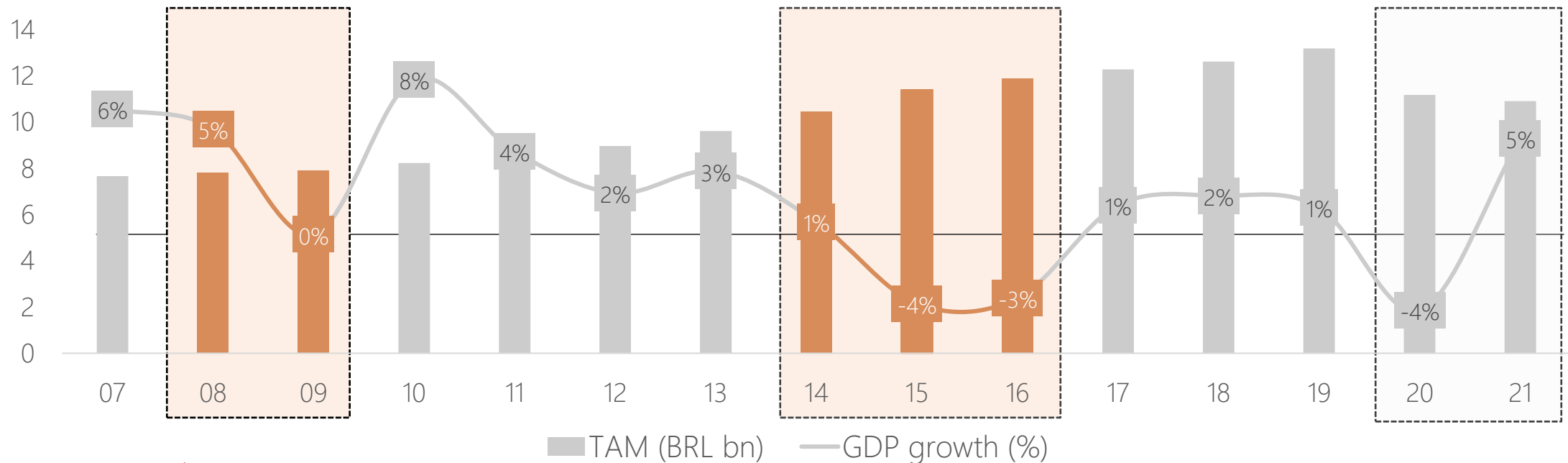
Resilient | Fragmented

Jewelry industry: discretionary, but resilient

The industry is inserted in discretionary retail, but unlike other segments, it presents greater resilience



Market size and GDP growth, [BRL mm; %]



Resilient | Fragmented

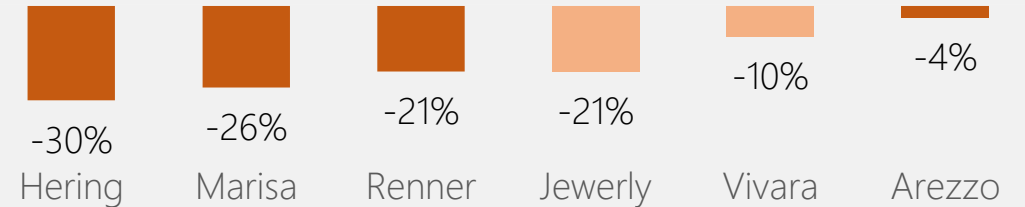
Jewelry industry: discretionary, but resilient

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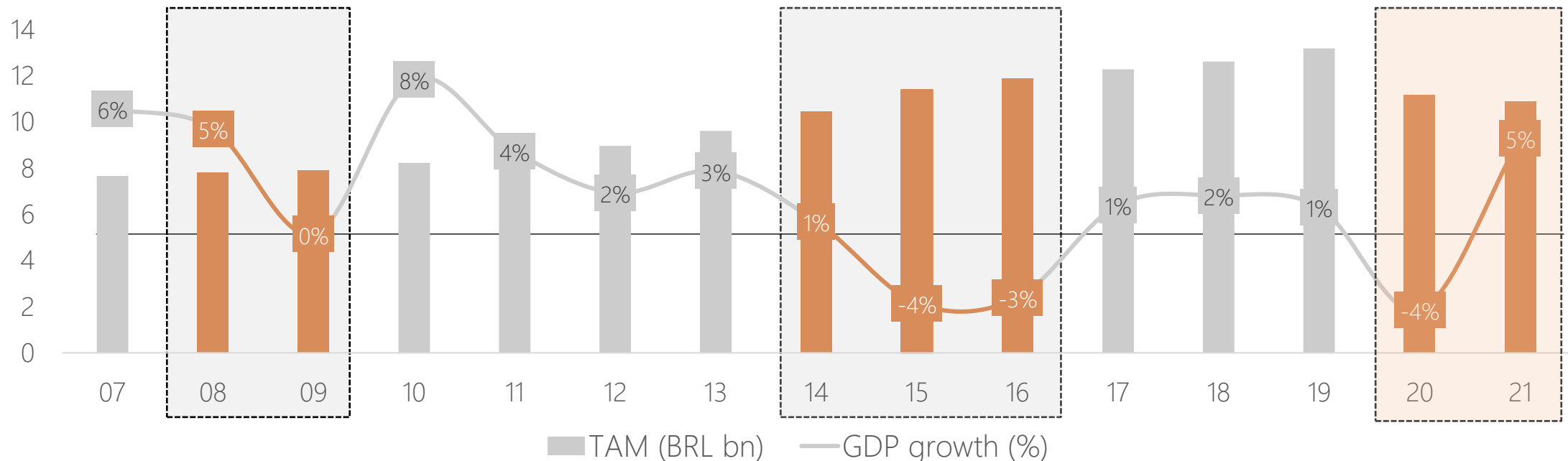
During the COVID-19 crisis, jewelry sector has **retracted for the first time**. But it has **performed better than expected**, all things considered...

Covid

Revenue growth in 2020



Market size and GDP growth, [BRL mm; %]



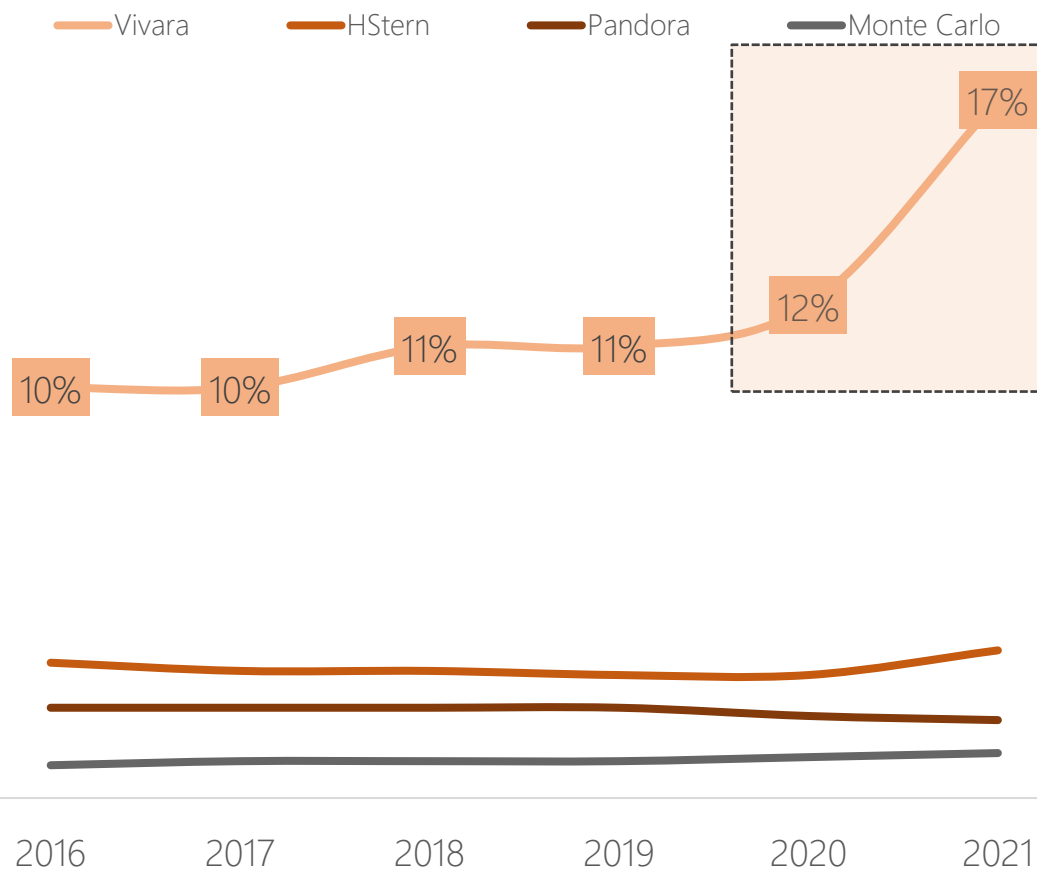
Resilient | Fragmented

The fiercer pandemic survivor: Vivara

Even though in Brazil, there is a certain concentration of Vivara in the jewelry sector, we believe that this movement will intensify even more

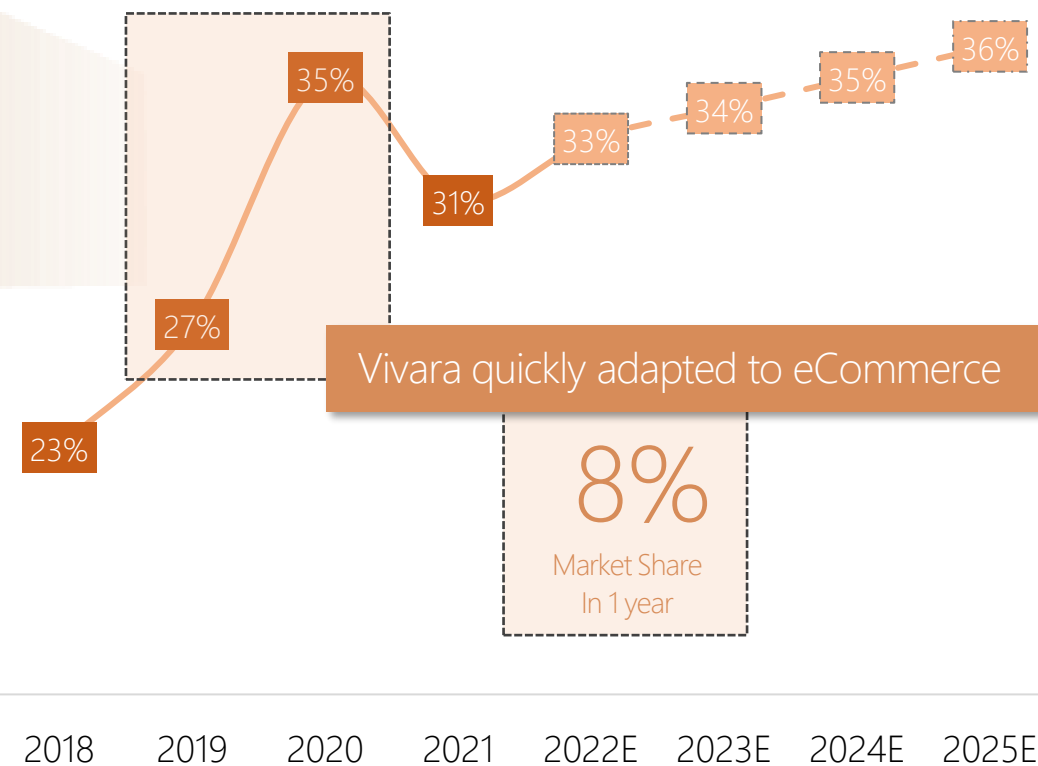
COVID was not all that bad to Vivara...

Brazilian top 4 jewelry retailers market share, [%]



...Vivara seized an important eCommerce consolidation...

Vivara's eCommerce market share, [%]



Resilient | Fragmented

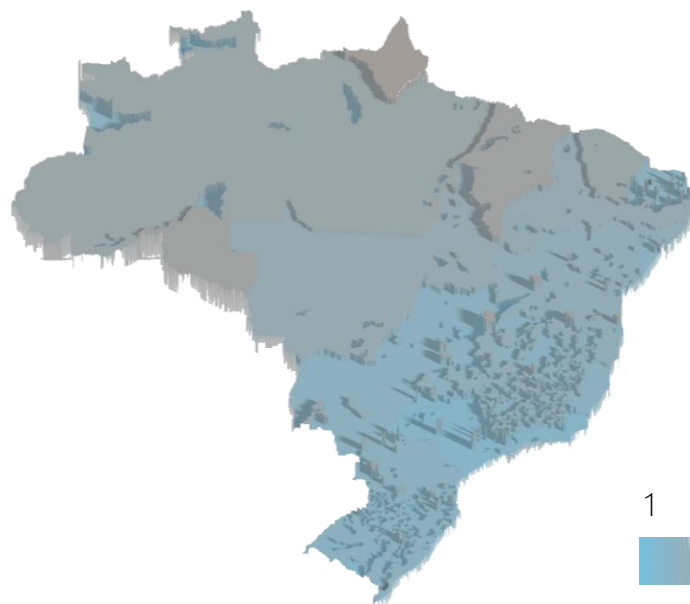
An incumbent on the digital world

In the pandemic, we saw a migration to digital, in which Vivara was able to consolidate even faster and grab a larger share of the market

We verified delivery speed and eCommerce coverage for every Brazilian city

eCommerce coverage and delivery days [%; #]

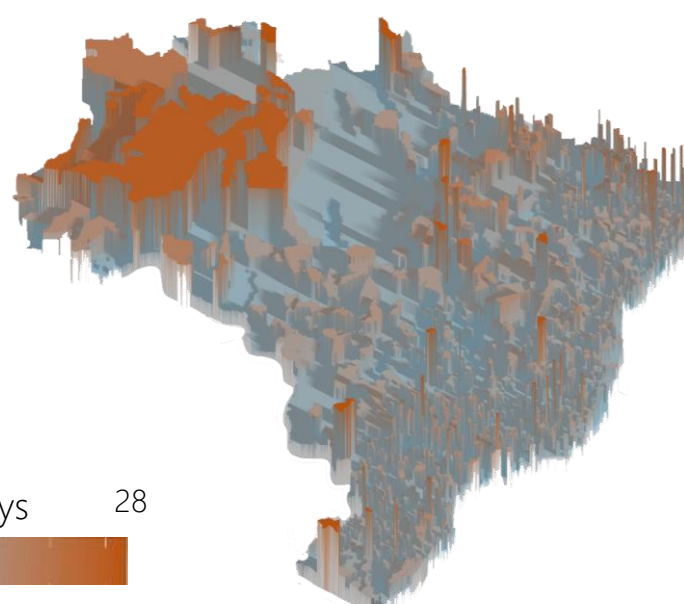
VIVARA



Delivery Days | Coverage

5.0 days 100%

PANDORA



Delivery Days | Coverage

7.4 days 93%

```
import requests
from selenium import webdriver
from bs4 import BeautifulSoup
from selenium.webdriver.chrome.options import Options
from time import sleep
from selenium.webdriver.chrome.service import Service
from webdriver_manager.chrome import ChromeDriverManager
from selenium.webdriver.common.keys import Keys
from datetime import date
from selenium.webdriver.common.by import By
import csv

hoje = date.today()

with open('entrega_650.csv', 'a', newline='', encoding='UTF-8') as f:

    linha = str(hoje) + '\n'
    f.write(linha)
    f.write('Frete SP'+ '\n')
    options = Options()

def load_data(filename):
    mylist = []
    with open(filename) as numbers:
        numbers_data = csv.reader(numbers, delimiter=',')
        next(numbers_data)
        for row in numbers_data:
            mylist.append(row[0])
    return mylist

new_list = load_data('650.csv')

url = 'https://www.montecarlo.com.br/aneis-joliejolie-aneis-nim030267/p'

navegador = webdriver.Chrome(service=Service(ChromeDriverManager().install()))
```

Proprietary Python Script

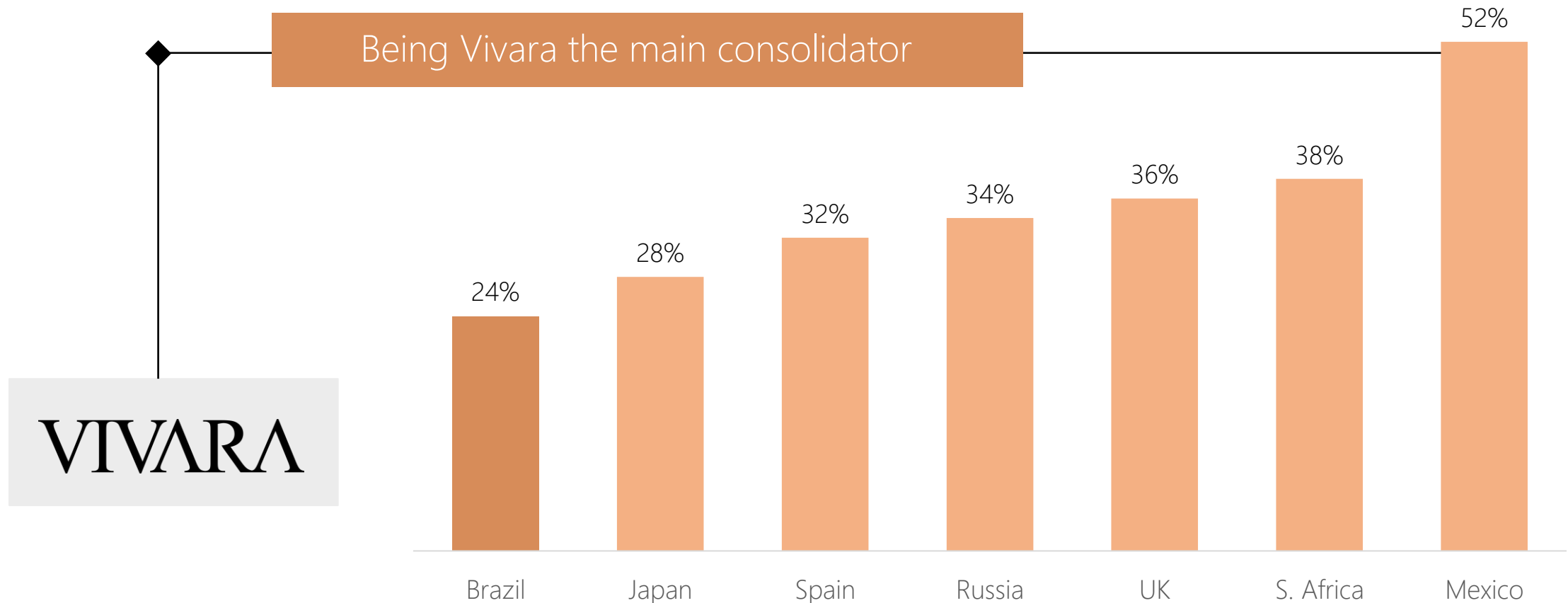
Resilient | Fragmented

Back to the real world: An industry still claiming for a king...

Even though in Brazil there is a certain concentration of Vivara in the jewelry sector, we believe that this movement will intensify even more

In a very fragmented industry in the physical space...

Market Share of Top 5 largest players, [%]

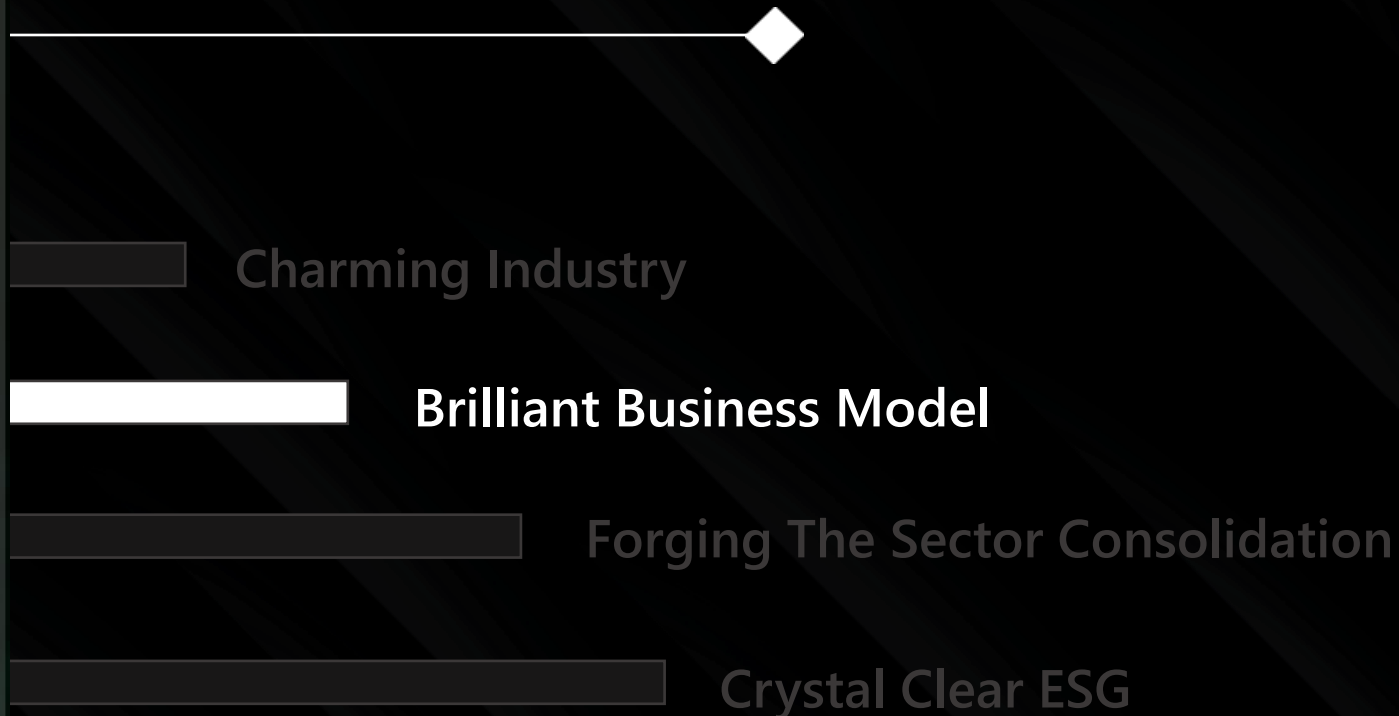


Resilient | Fragmented

VIVARA



Is it time to engage?



The perfect balance between brand and price...

Vivara and Life both stand alone in pricing range in every product category

```
import requests
from bs4 import BeautifulSoup
from selenium import webdriver
from time import sleep
from datetime import date
from webdriver_manager.chrome import ChromeDriverManager
from selenium.webdriver.chrome.service import Service
from selenium.webdriver.chrome.options import Options

options = Options()
#options.add_argument('--headless')

hoje = date.today()

navegador = webdriver.Chrome(service=Service(ChromeDriverManager().install()))

with open('precos_pedra_tiffany.csv', 'a', newline='', encoding='UTF-8') as f:
    linha = str(hoje) + '\n'
    f.write(linha)

k = 0
i = 0
compr = 1
url = 'https://www.tiffany.com.br/jewelry/shop/'
types = ['rings', 'necklaces-pendants', 'bracelets', 'earrings', 'brooches']

while k <= 5:
    if i <= 4:
        #print(i)
        print(url + types[k] + '/sort-relevance/?page=' + str(i))
        navegador.get(url + types[k] + '/sort-relevance/?page=' + str(i))

        sleep(3)
        last_height = navegador.execute_script("return document.body.scrollHeight")

        for contador in range(20): ...

        site = BeautifulSoup(navegador.page_source, 'html.parser')
        produtos = site.find_all('div', class_='product-tile_details')

        for produto in produtos: ...

        i = i + 1

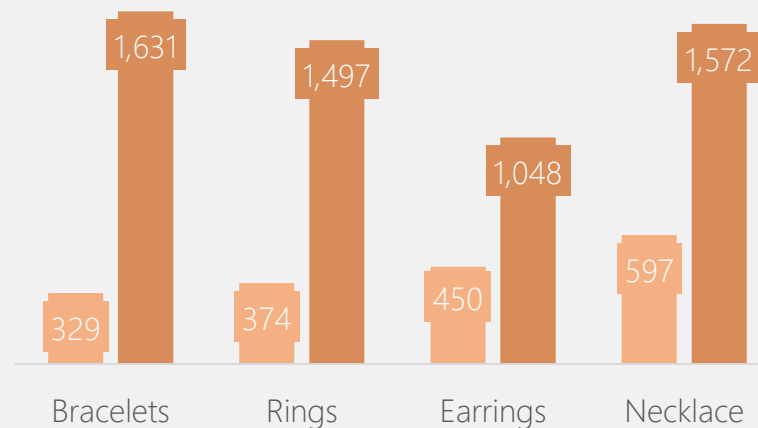
    else:
        k = k + 1
```

Proprietary Web Scraping Code

Marketing dilution at its best

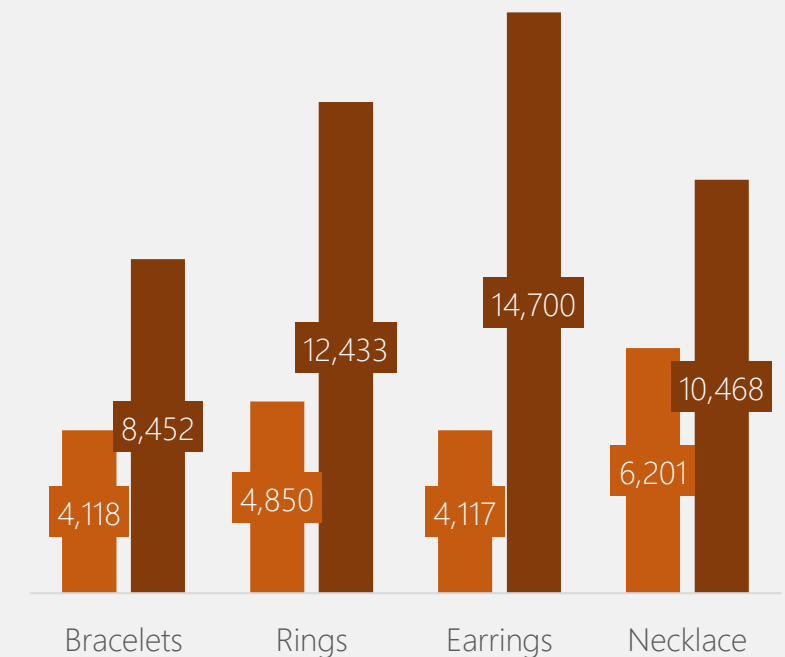
Unmatched Silver prices
Price Comparison Life x Pandora

Life Pandora



Unmatched Gold prices
Price Comparison Vivara x HStern

Vivara HStern



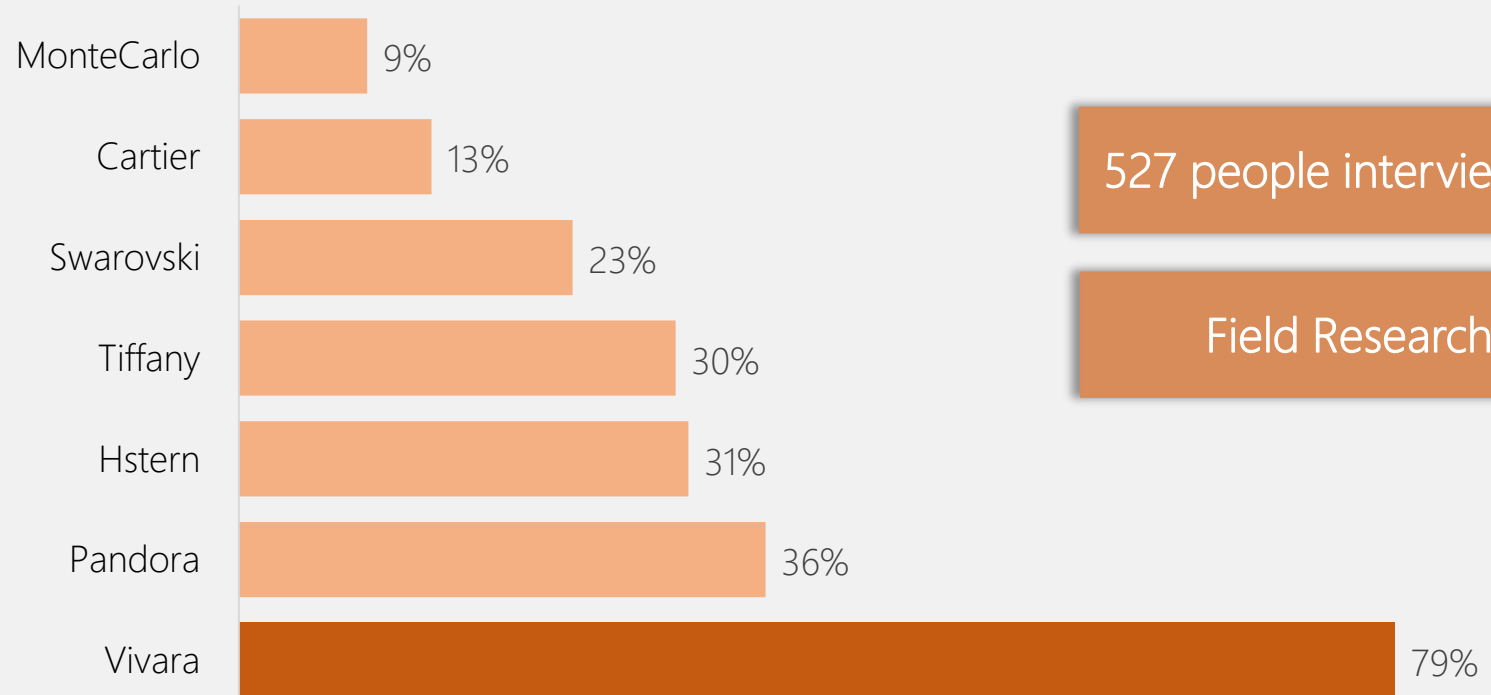
Scale | Verticalization

The perfect balance between brand and price...

In addition, being the largest jewelry retailer brings advantages of scale and reflects the company's greater brand awareness

Highest spontaneous brand awareness

Jewelries brand awareness, [%]



Especially among middle class

527 people interviewed

Field Research

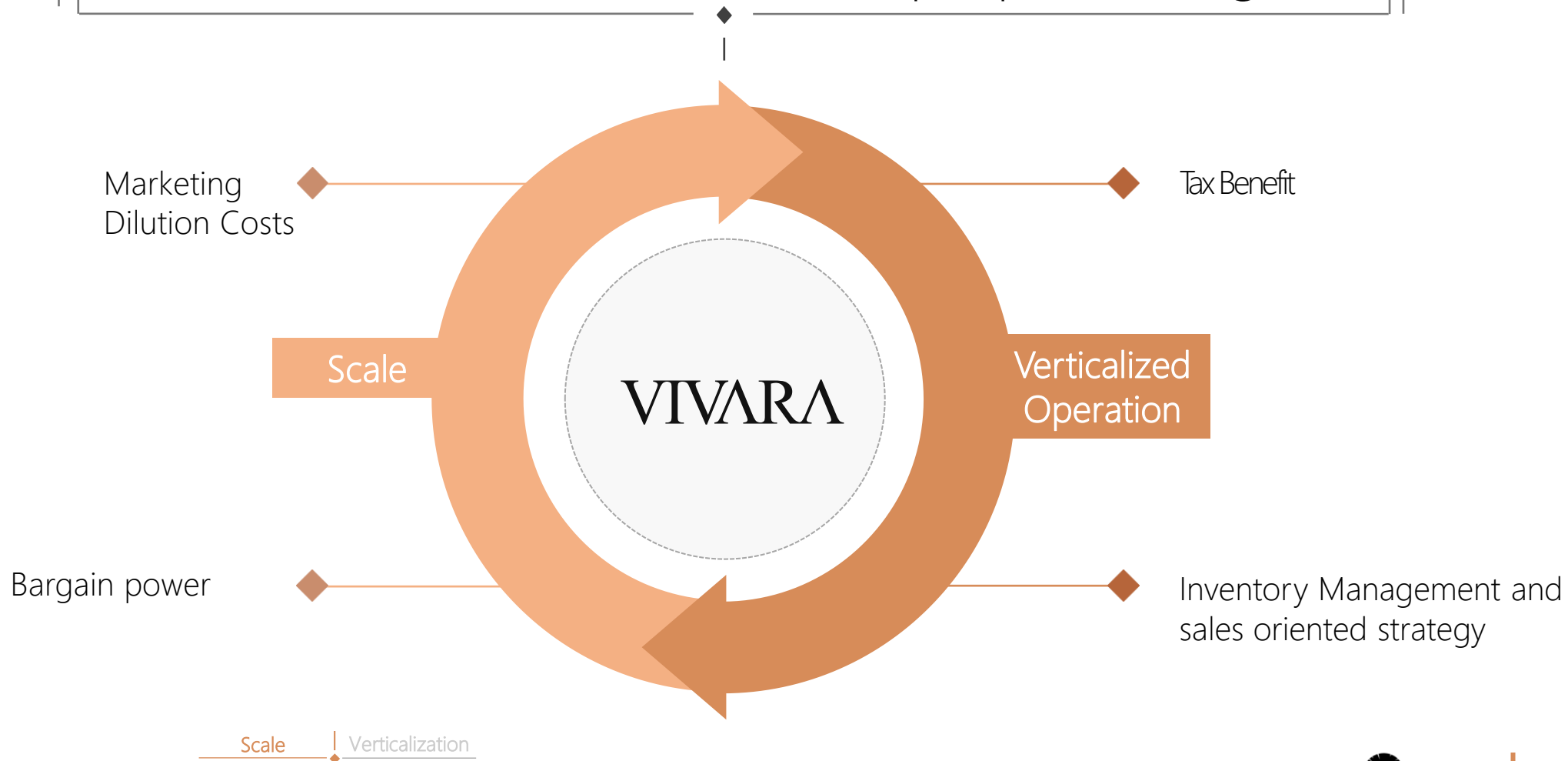
89%

of interviewed
that are from
income class B
mentioned
Vivara

The jewel in the crown: Vivara's operation

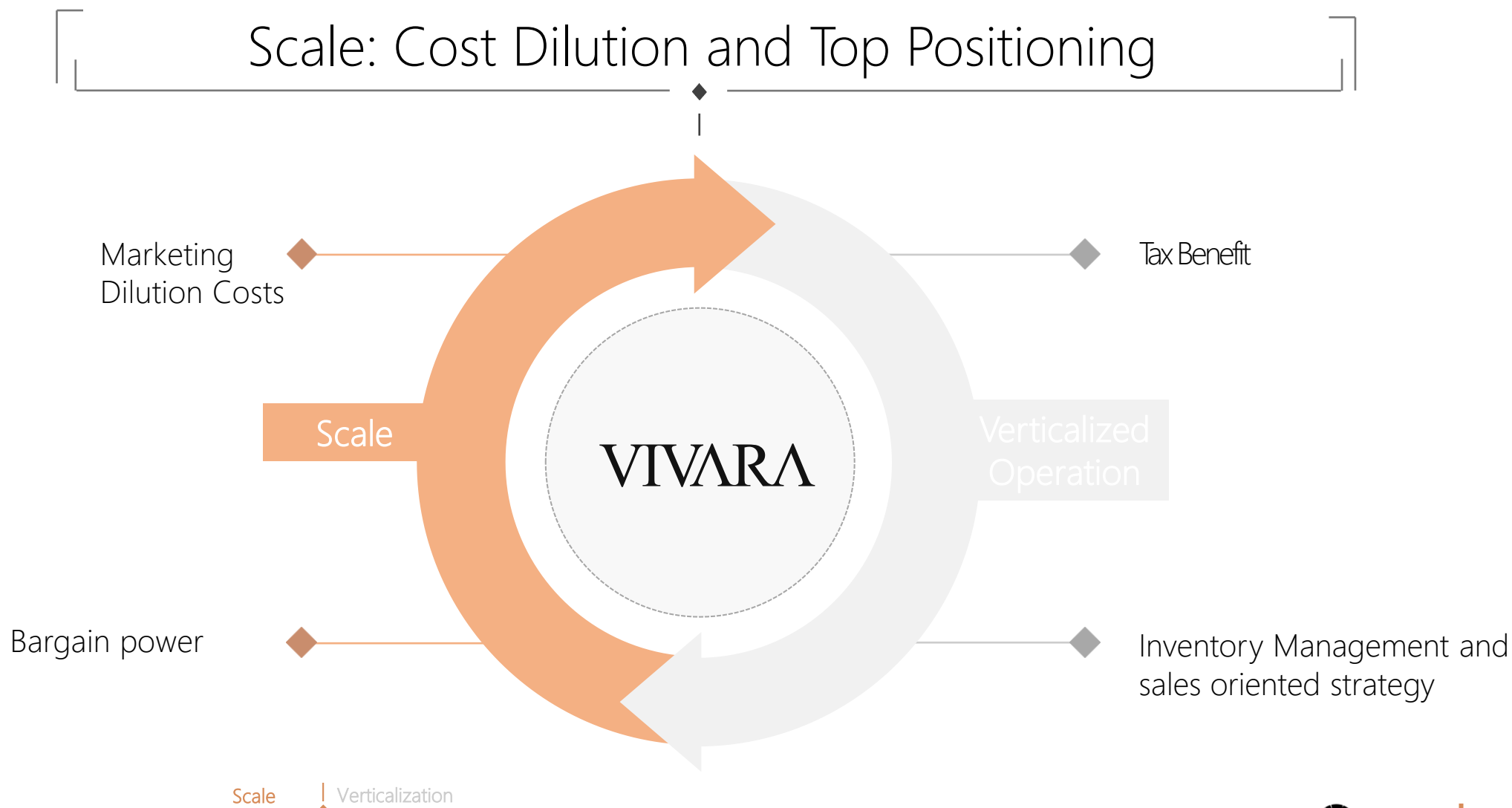
No wonder Vivara is the leader in the industry. Its large-scale verticalized operation translates into efficiency and competitive advantages

How does it maintain such unique positioning?



The jewel in the crown: Vivara's operation

No wonder Vivara is the leader in the industry. Its large-scale verticalized operation translates into efficiency and competitive advantages

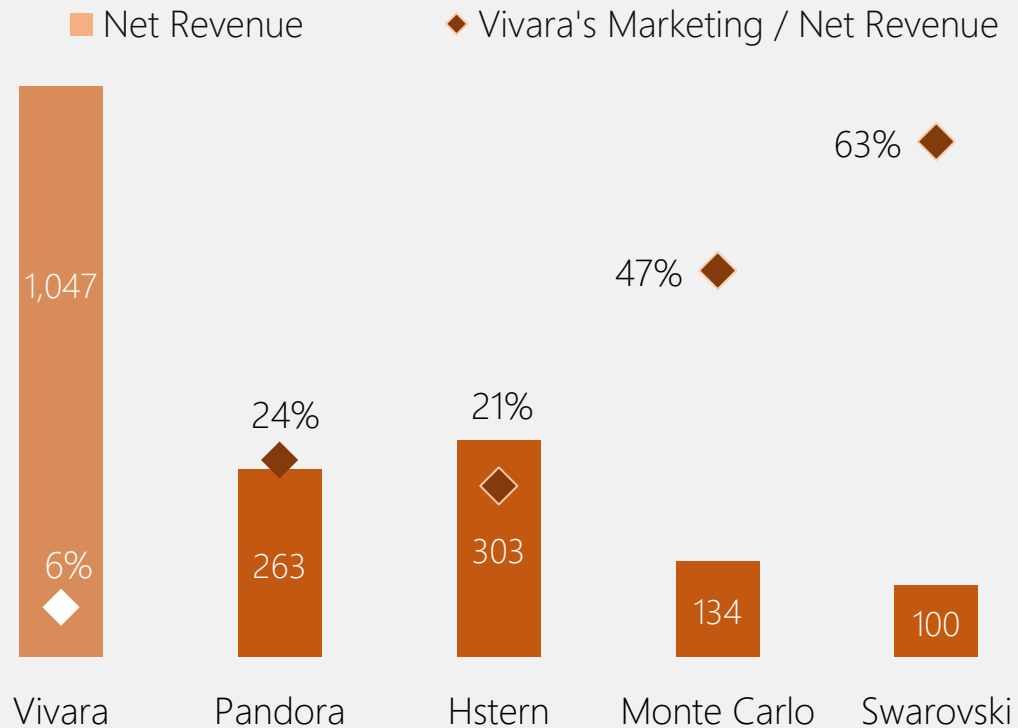


Scale at its best: Cost dillution and bargain power with malls

Vivara's marketing expenditure is unmatched. Also, the brand is a must in Brazilian malls

Unmatched Marketing Expenses

Net Revenue for each company and Vivara's Marketing / Net Revenue [BRL mm; %]



And Vivara is a must-have in any shopping

Does not pay signing bonus

Easier leasing negotiations

Best positioning inside malls

Life standalones enjoy this benefits

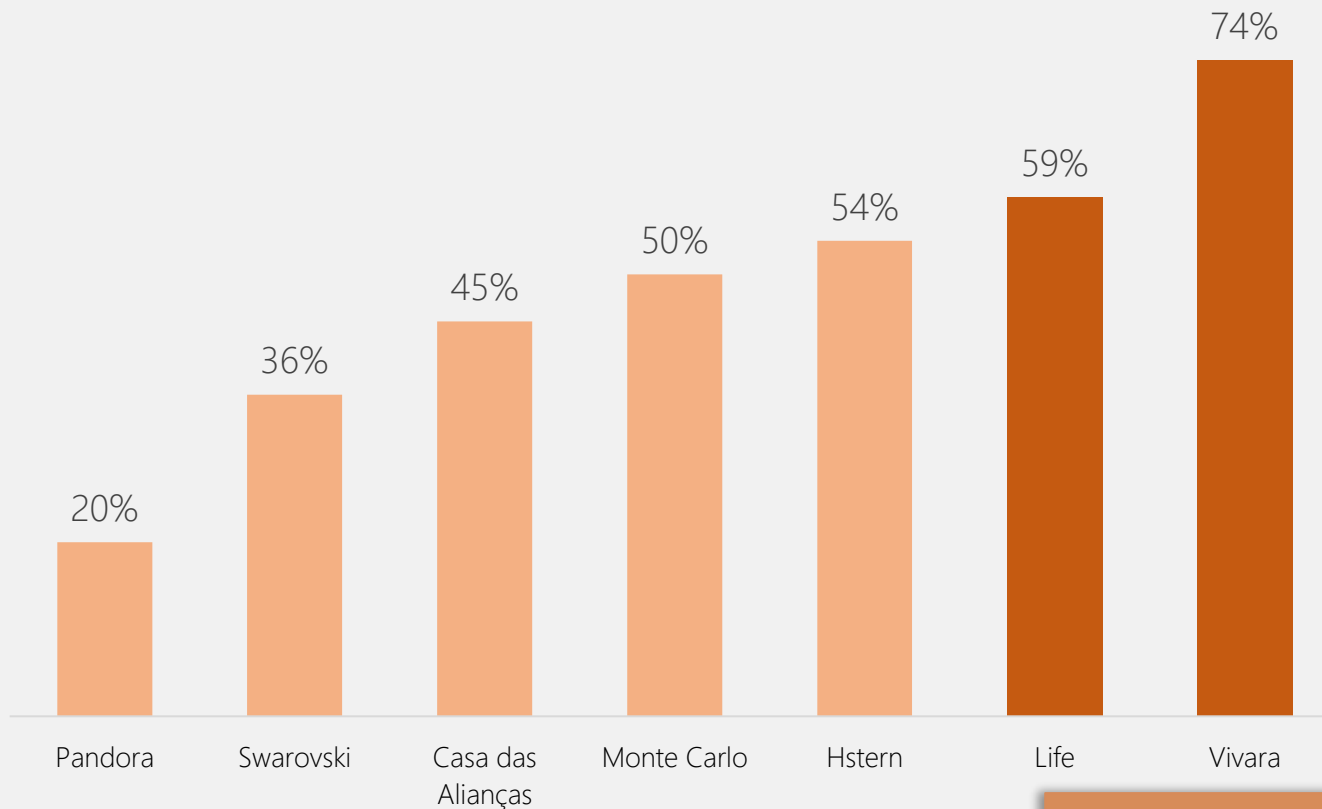
Scale | Verticalization

Scale at its best: Cost dilution and bargain power with malls

Vivara scale reflects in its top-mind position inside malls

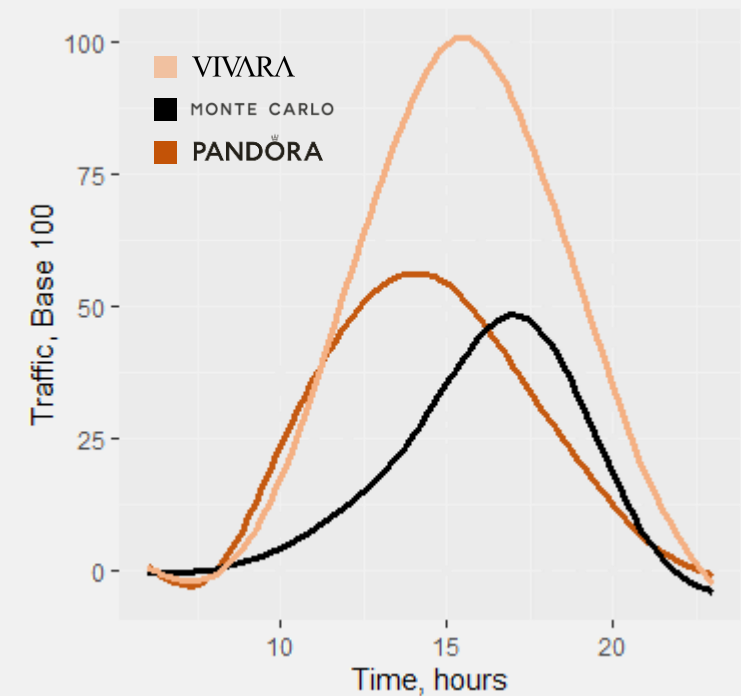
◆ The best store positioning inside malls

Percentage of stores on corners [%]



◆ Resulting in the most foot Traffic

Foot Traffic Comparison [%]

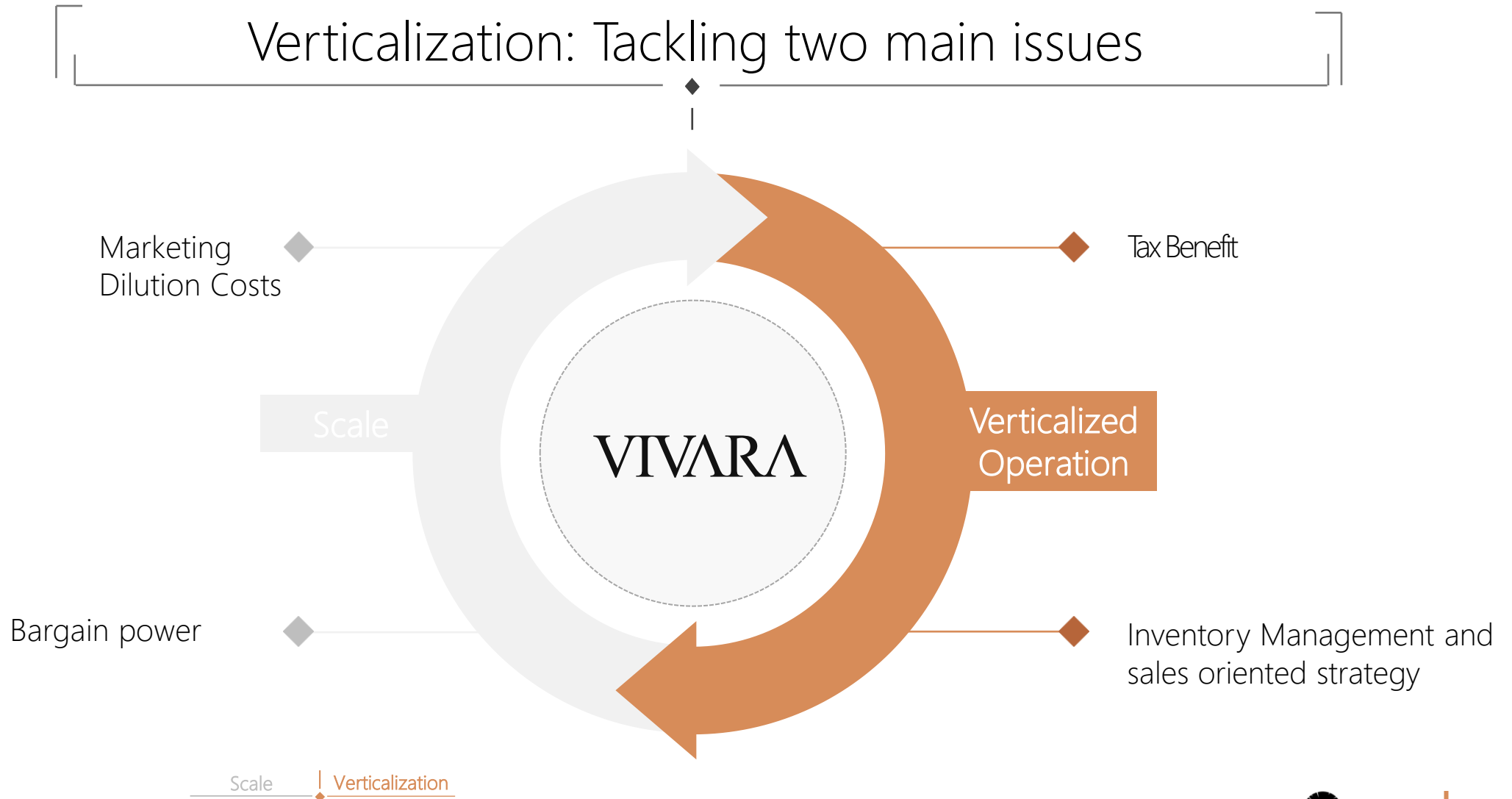


An unique market positioning

Scale | Verticalization

The jewel in the crown: Vivara's operation

No wonder Vivara is the leader in the industry. Its large-scale verticalized operation translates into efficiency and competitive advantages

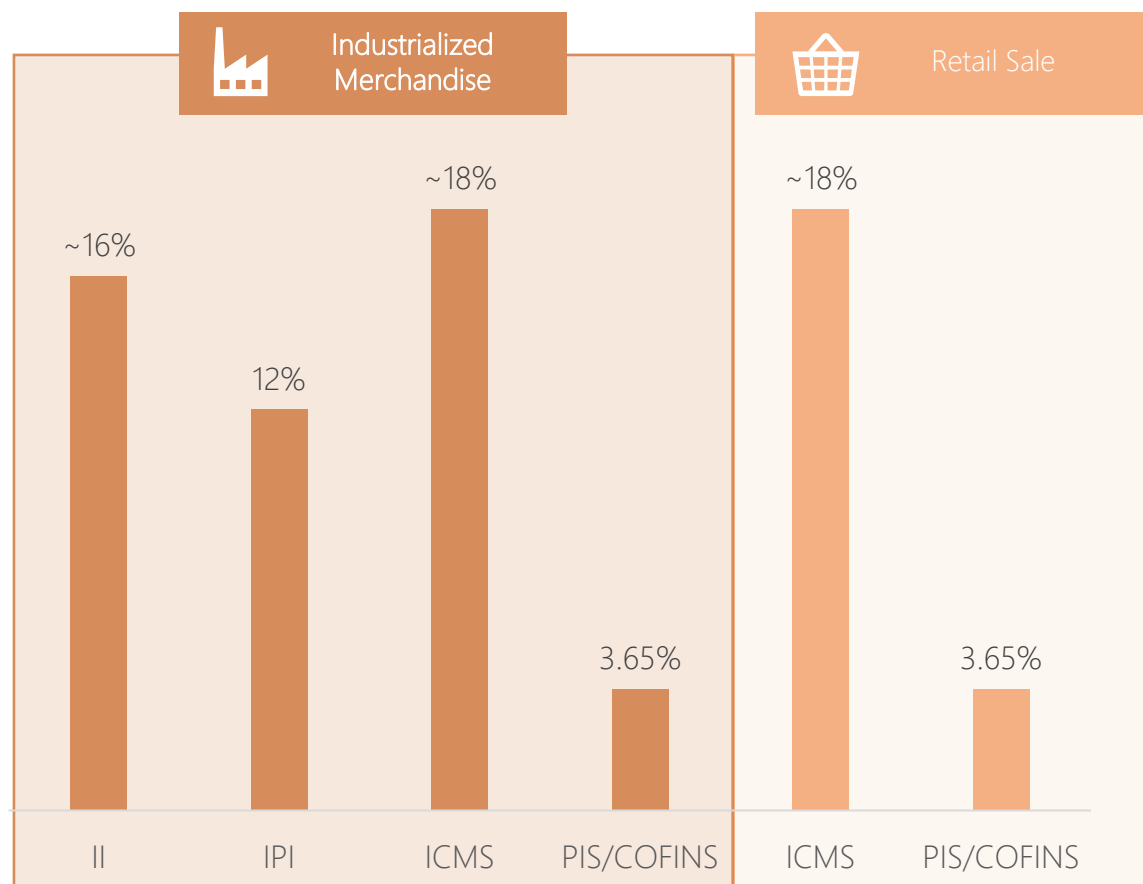


Tackling two main issues: Tax system

Tax regulations gives international peers a hard time...

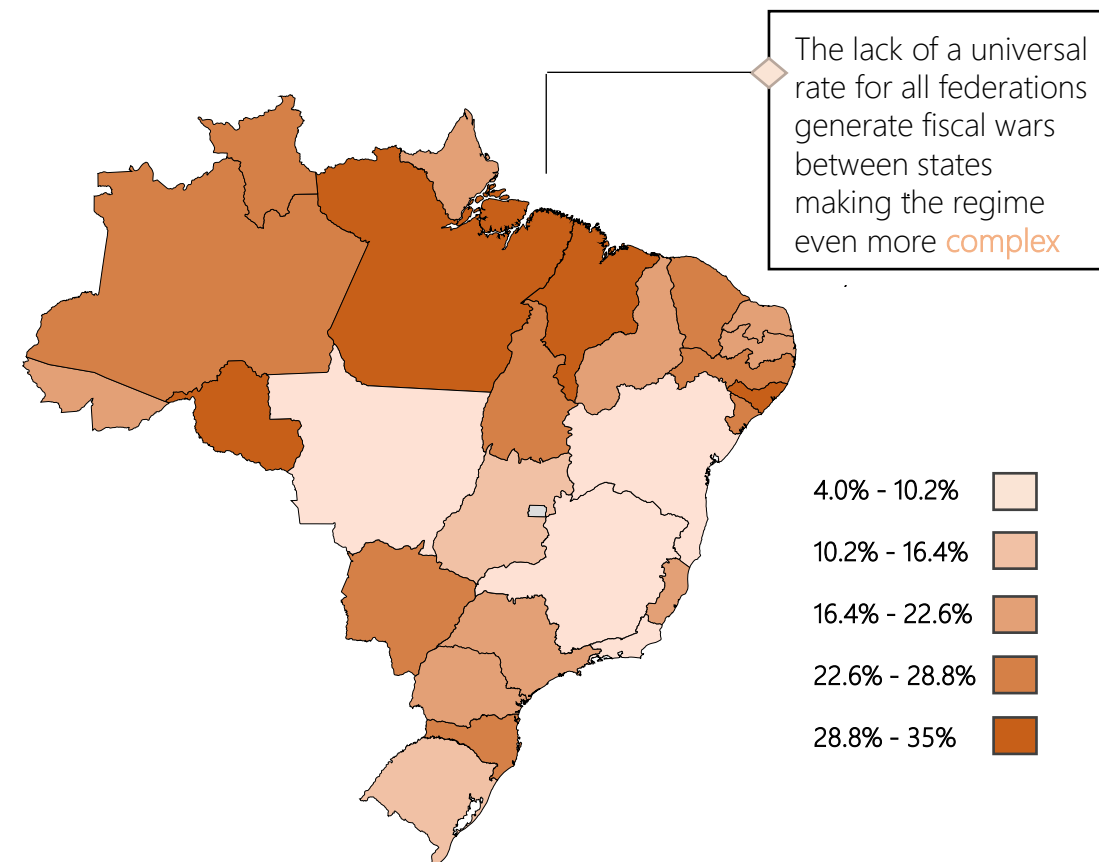
Heavy taxes incident upon every step of the value chain...

Vivara's two subsidiaries and taxes upon the value chain



Jewels ICMS ranges from 4% to 35% depending on state...

Jewelry Retail ICMS rate per state, [%]



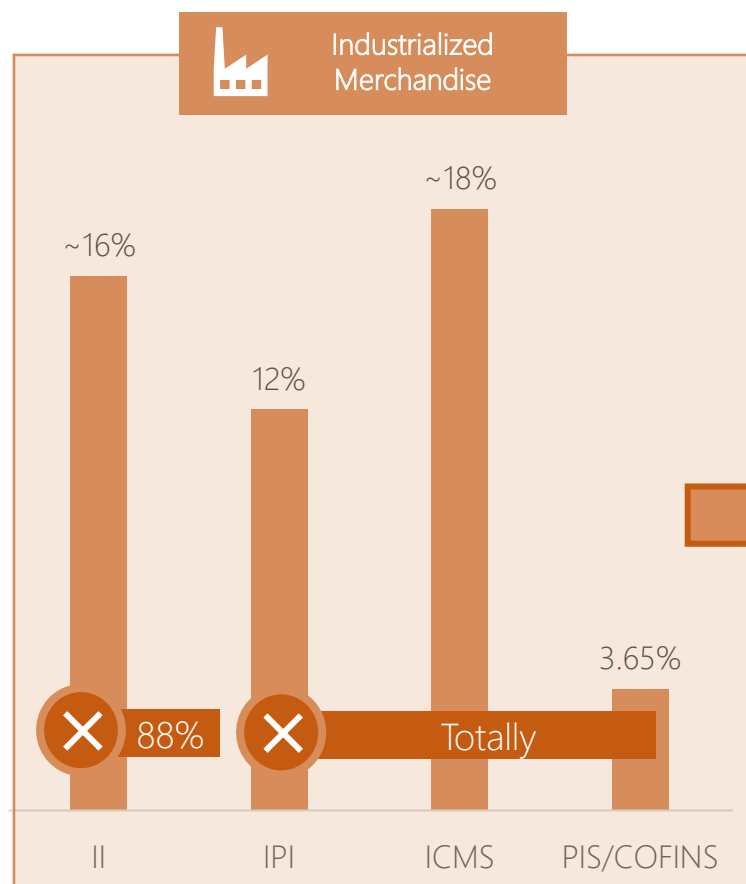
Scale | Verticalization

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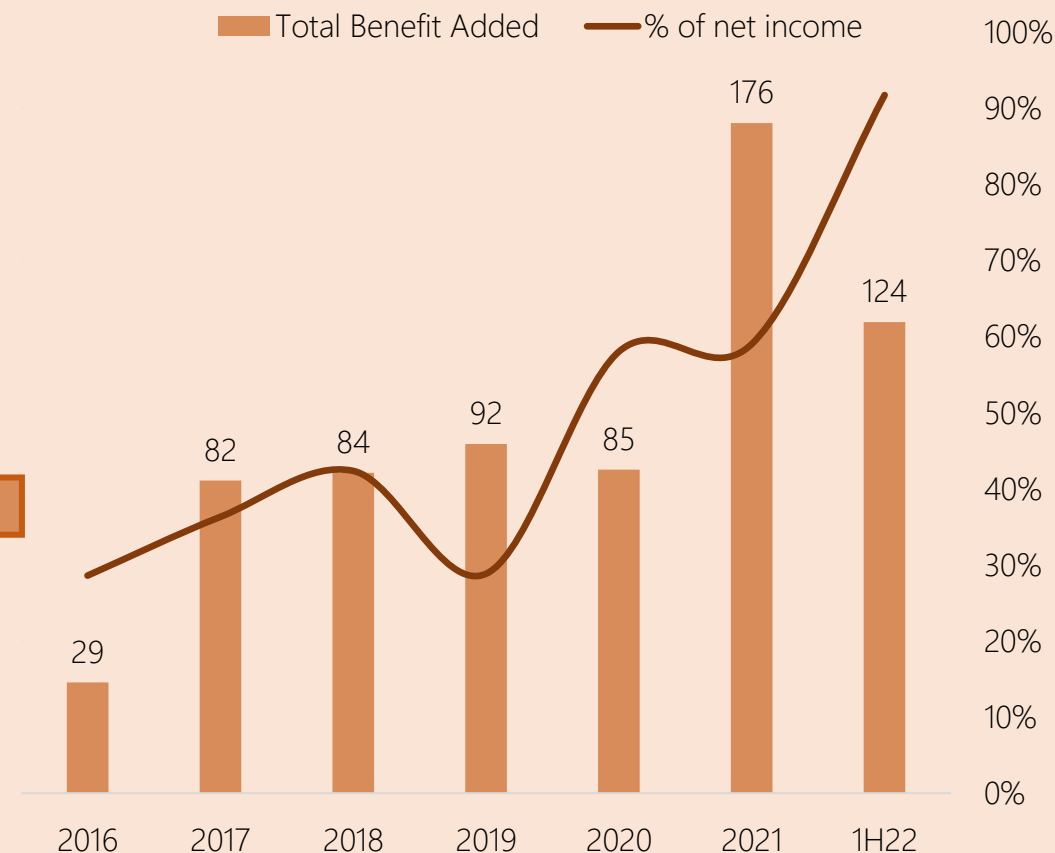


Huge importance

VIVARA

Financial health dependent on tax incentives...

Total Benefits and tax benefits as % of net-income [BRL mm; %]



Tackling two main issues: Raw materials volatility

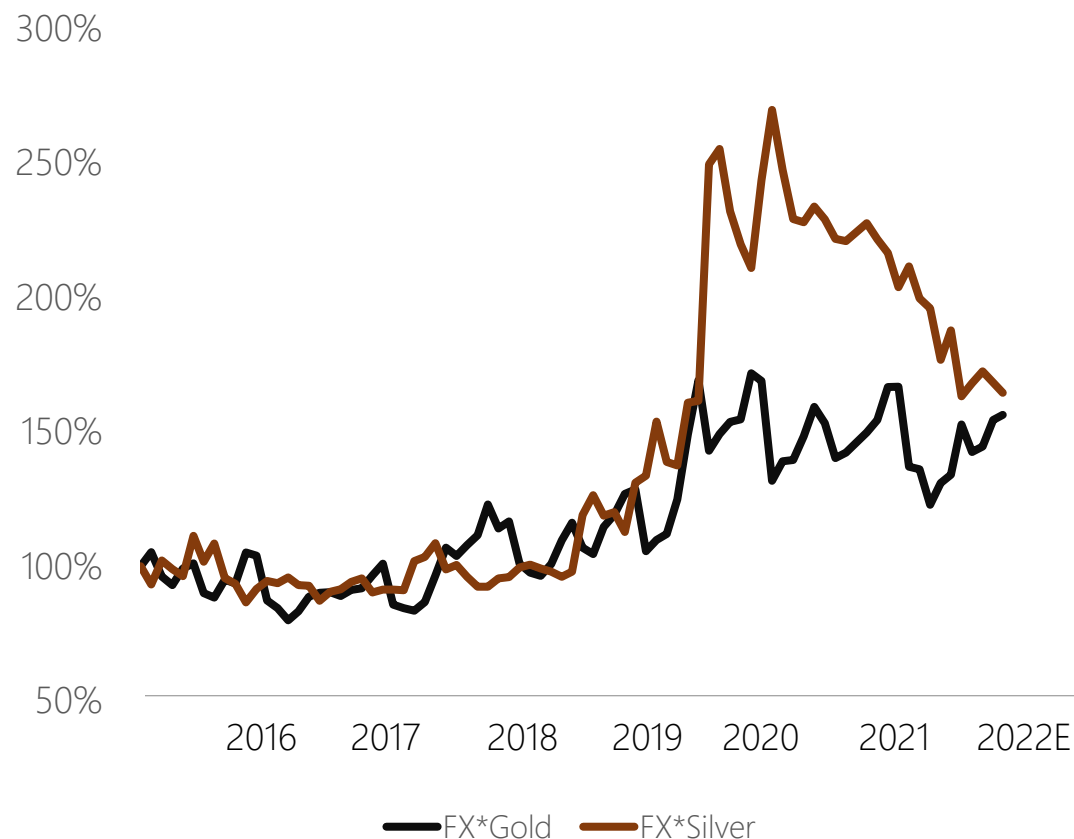
Vivara's verticalized structure allows the company to reduce the impact of raw materials price spikes and promote a more flexible portfolio mix

VIVARA Sources

Gold and Silver Price,
Vivara IR

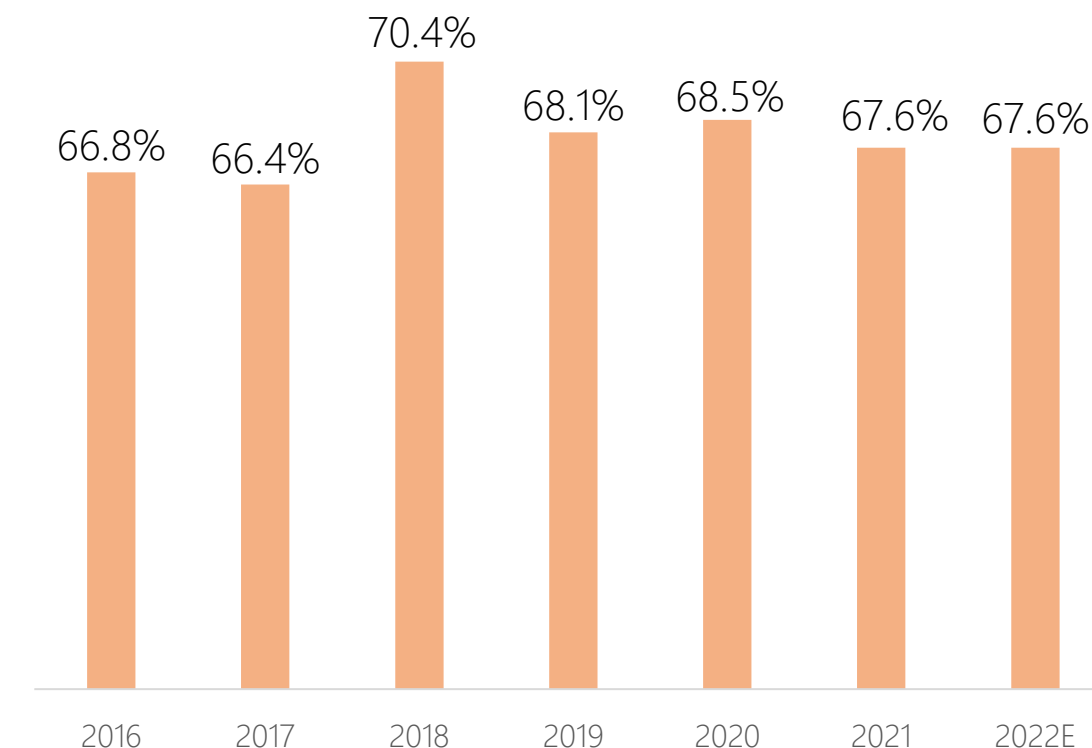
Highly volatile raw input materials

Gold and Silver Price Evolution in BRL, [jan/10 = 100]



... but Vivara's Gross Margins are stable

Vivara's Gross Margin, [%]



Scale | Verticalization

Tackling two main issues: Raw materials volatility

Vivara's verticalized structure allows the company to pass on the raw material mix

VIVARA Sources

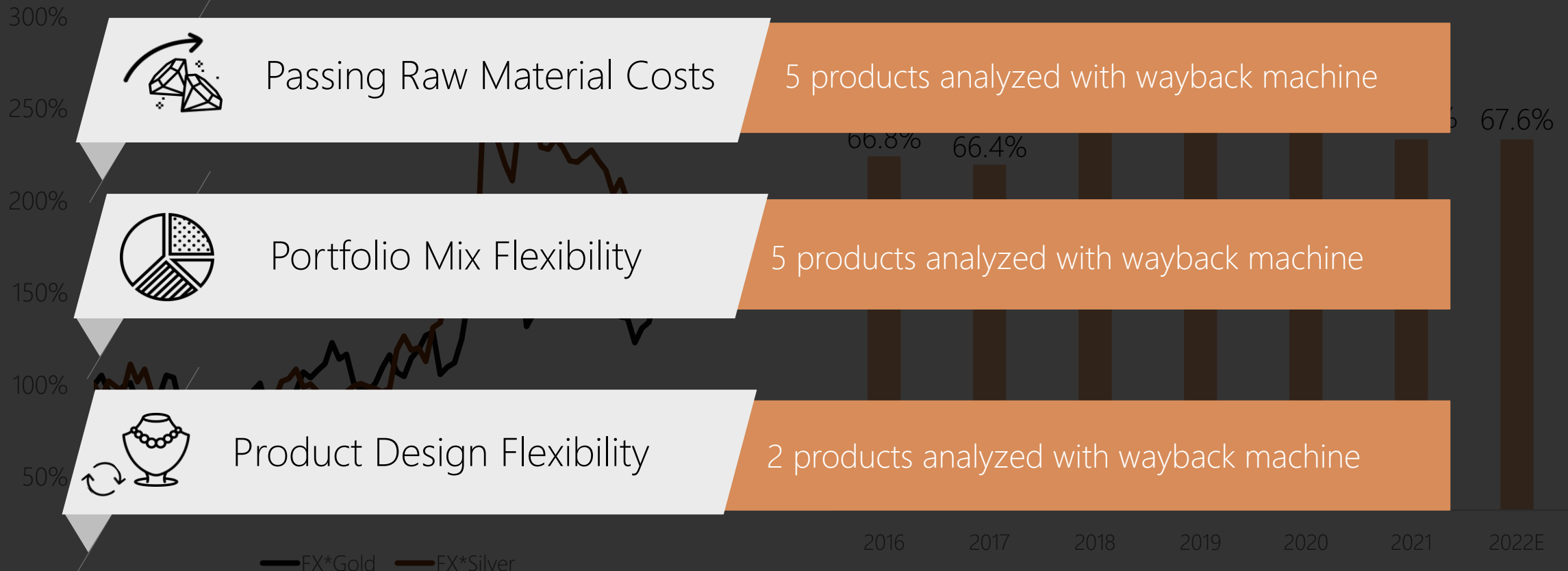
Gold and Silver Price,
Vivara IR

How does Vivara do it?

Highly volatile raw input market

Stable

Gold and Silver Price Evolution (2016-2022E)



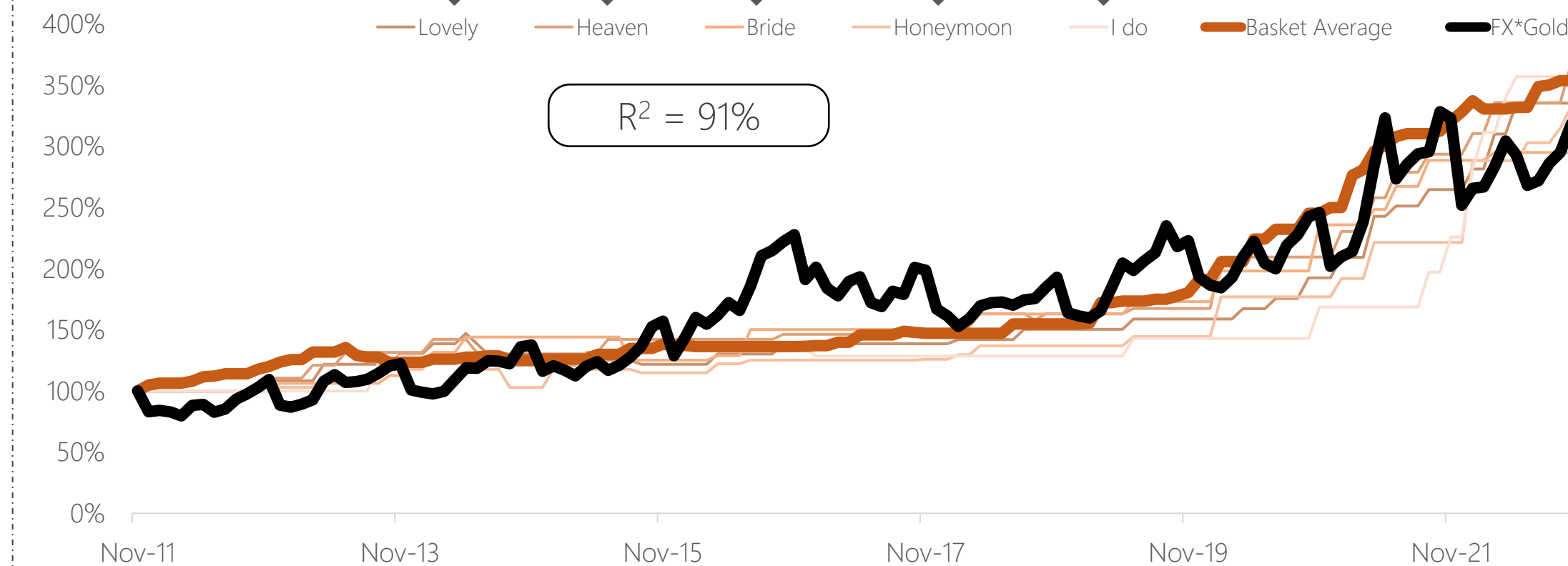
Scale | Verticalization

First Strategy: Price pass-through

Using Way Back Machine we proved Vivara repasses gold prices

Products

Gold Products prices



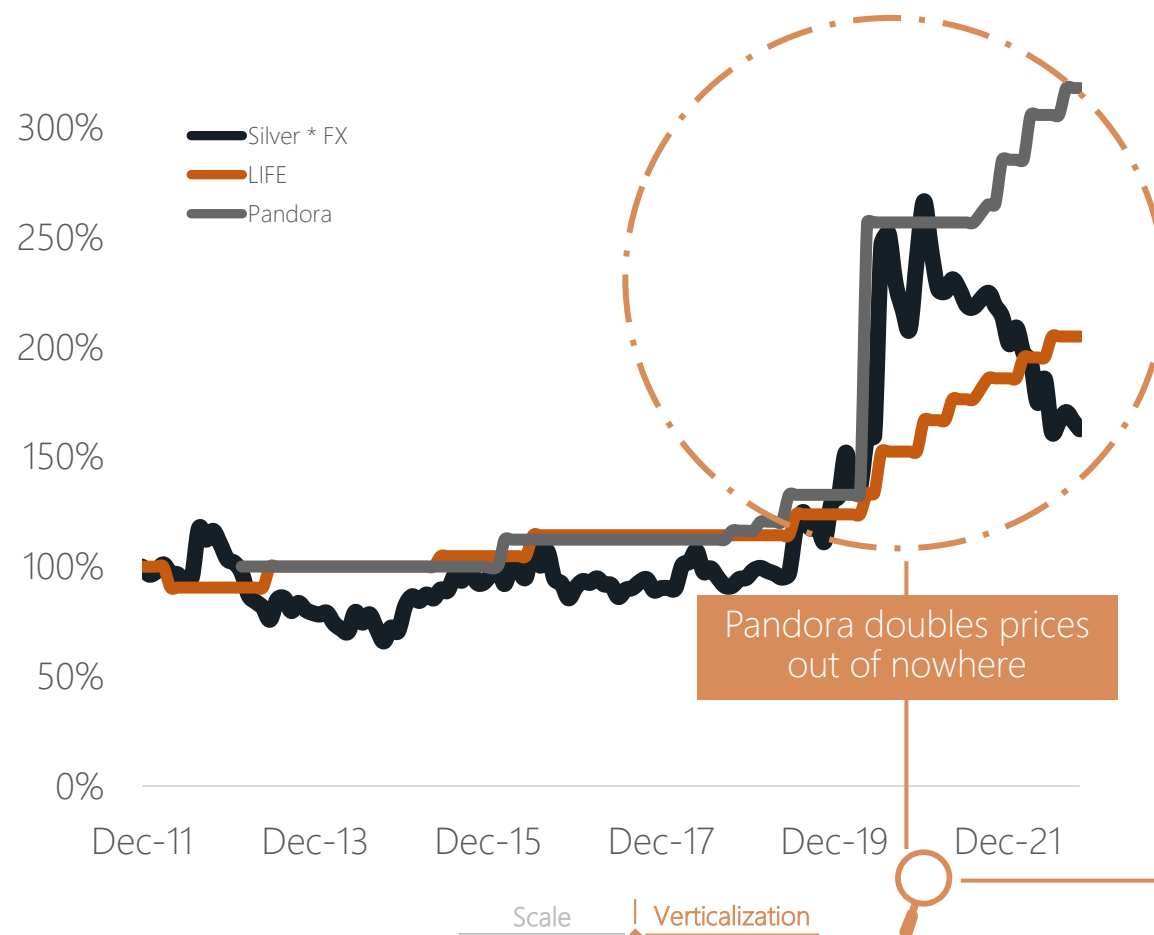
Scale | Verticalization

Other players also pass along raw material prices

Pandora also pass raw material prices, but at a faster pace than Life

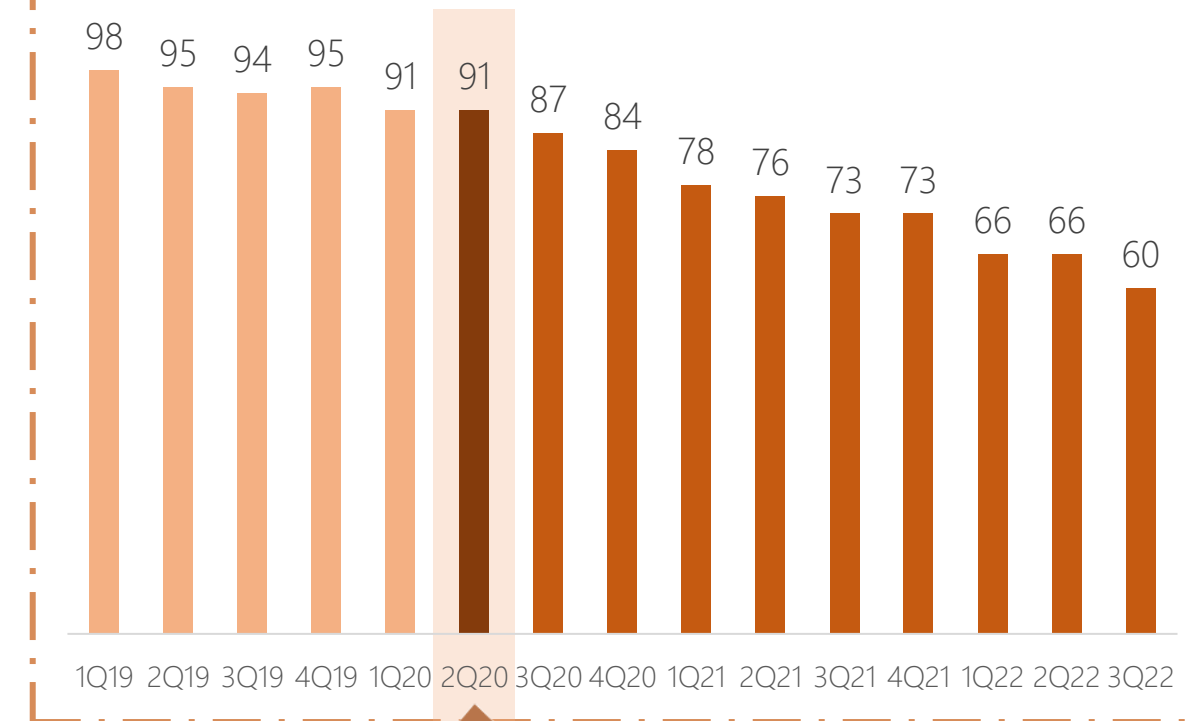
Pandora and Life's Price Evolution

Silver products prices changes comparison, [%]



Abrupt price changes are not well received...

Pandora's Stores in Brazil, [#]

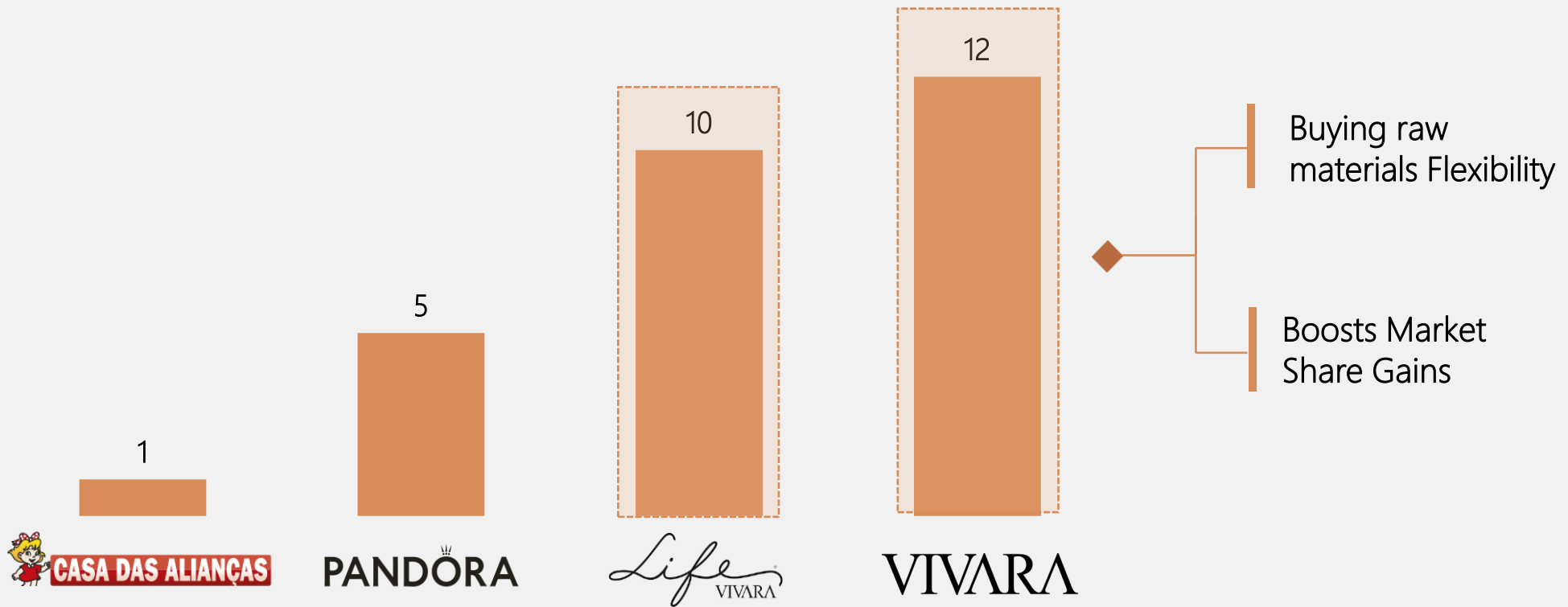


Other players also pass along raw material prices

Pandora also pass raw material prices, but at a faster pace than Life

The timing to pass costs along is crucial...

Time for raw materials to impact product prices, [months]



60
2 3Q22

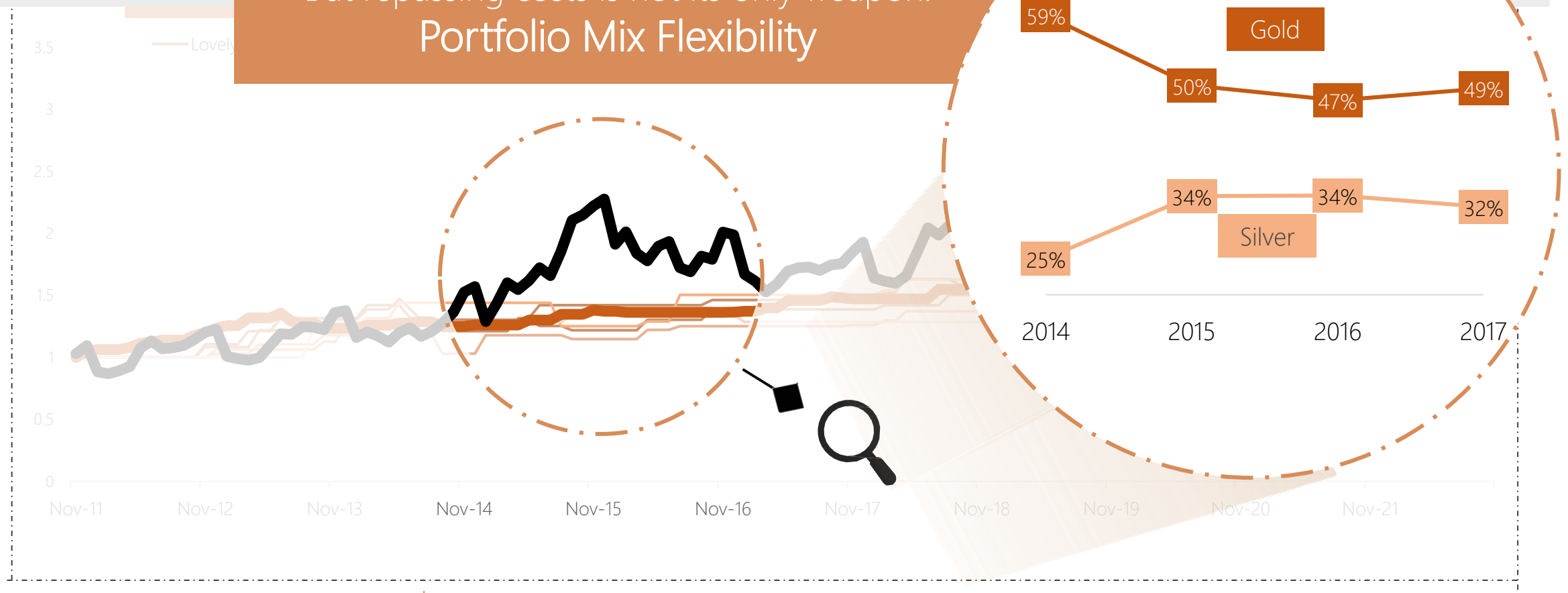
Second strategy: Portfolio mix flexibility

Vivara can change its products offering to sustain its gross margins

VIVARA Sources

Vivara, WayBack
Machine

But repassing costs is not its only weapon:
Portfolio Mix Flexibility



Scale | Verticalization

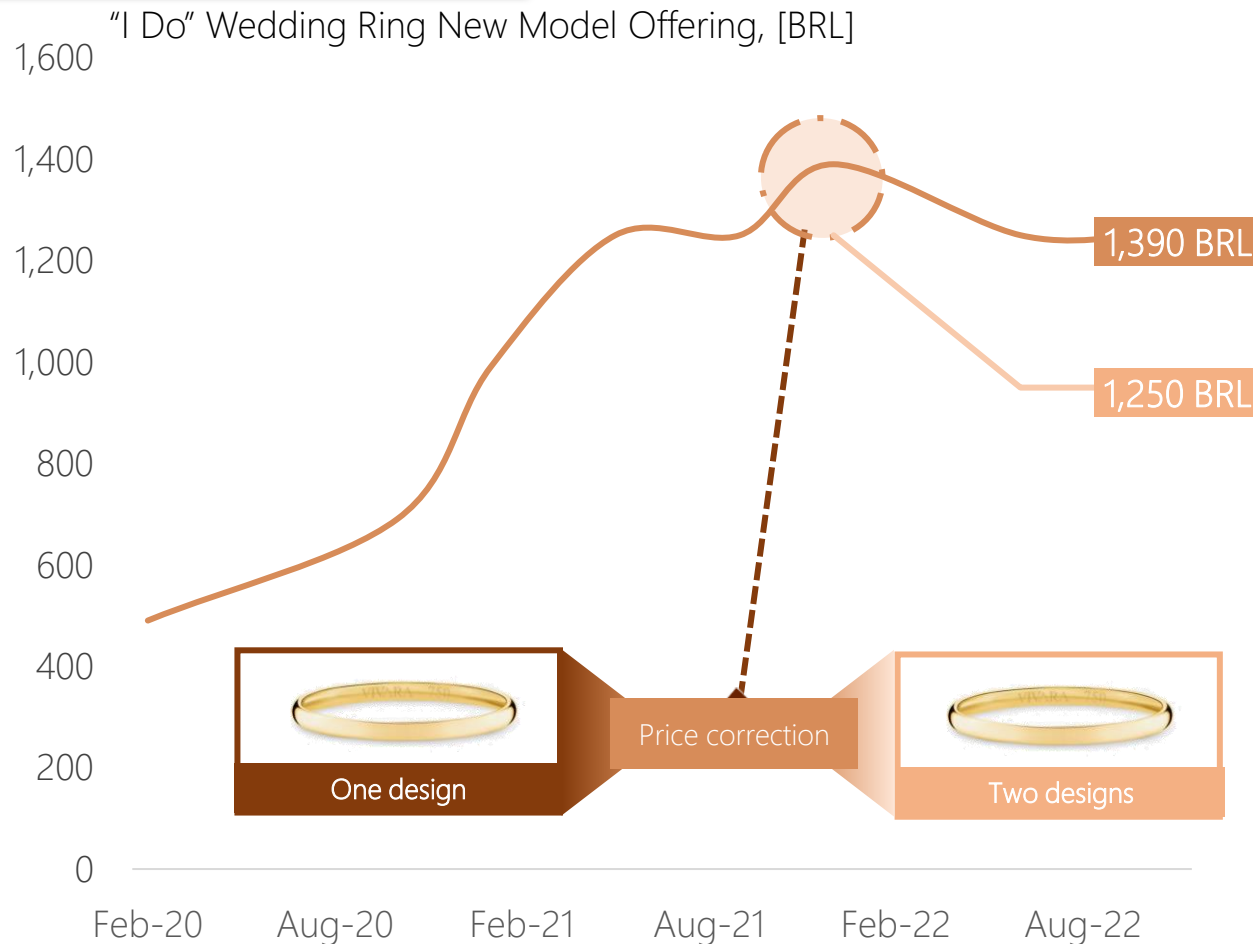
Third Strategy: Product design flexibility

Having a factory that makes and recycles Vivara's products gives the company large flexibility to change it mix fast

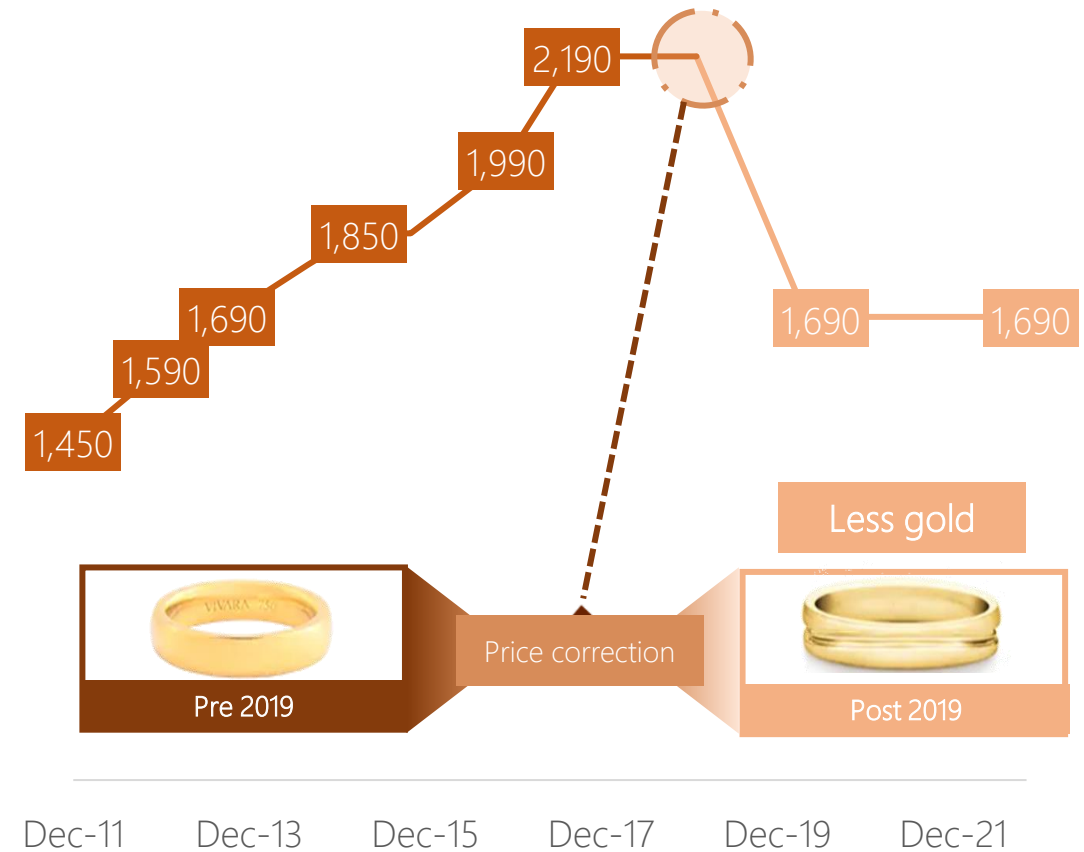
I Do Wedding Ring

Changing Products to Fit In Customer's Pockets

True Love Wedding Ring



Change in "True Love" Wedding Ring Design, [BRL]

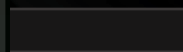


Scale | Verticalization

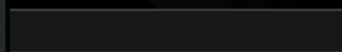
VIVARA



Is it time to engage?



Charming Industry



Brilliant Business Model

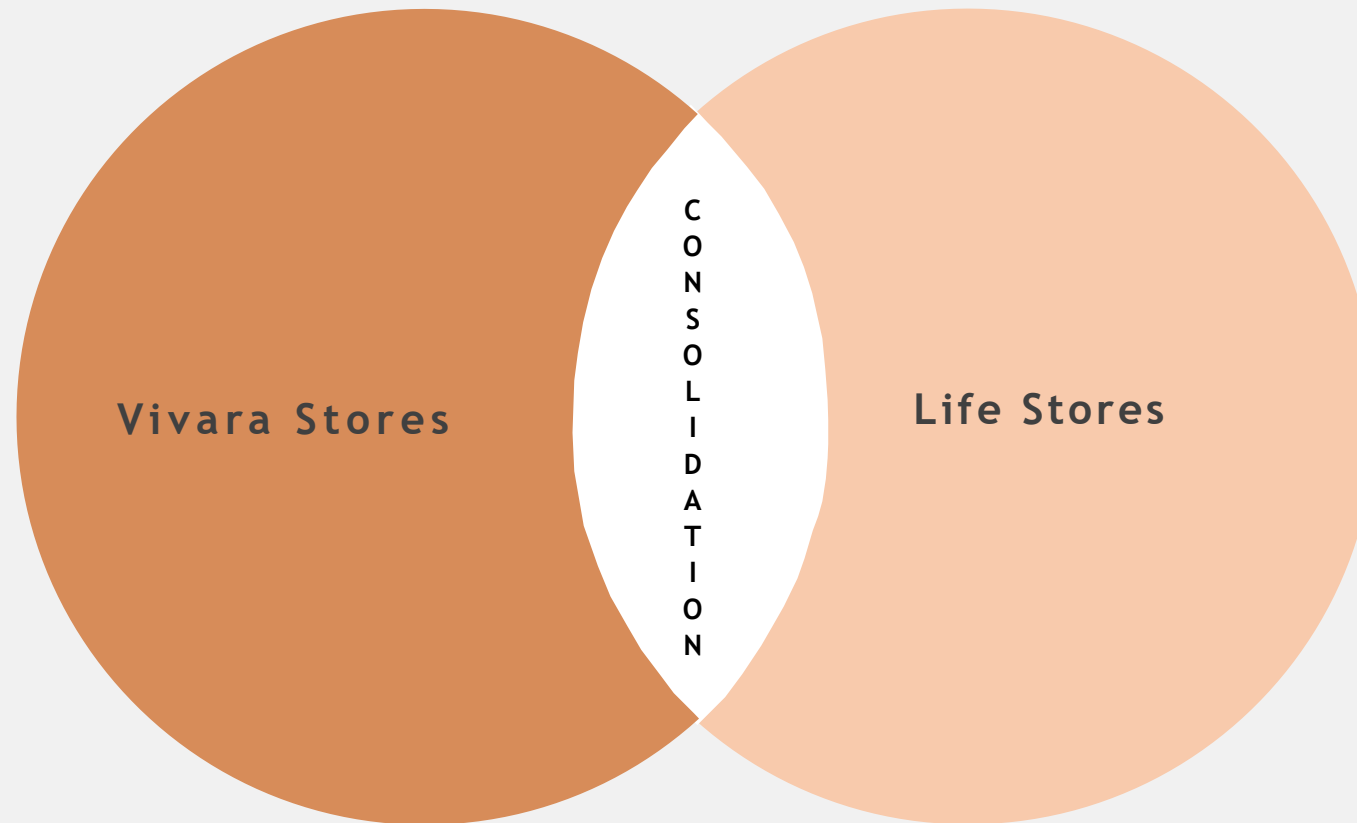


Forging The Sector Consolidation

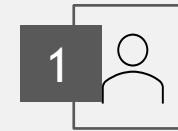


Crystal Clear ESG

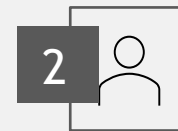
Third Thesis: Consolidation plan



Consolidation Plan



Vivara Stores Openings

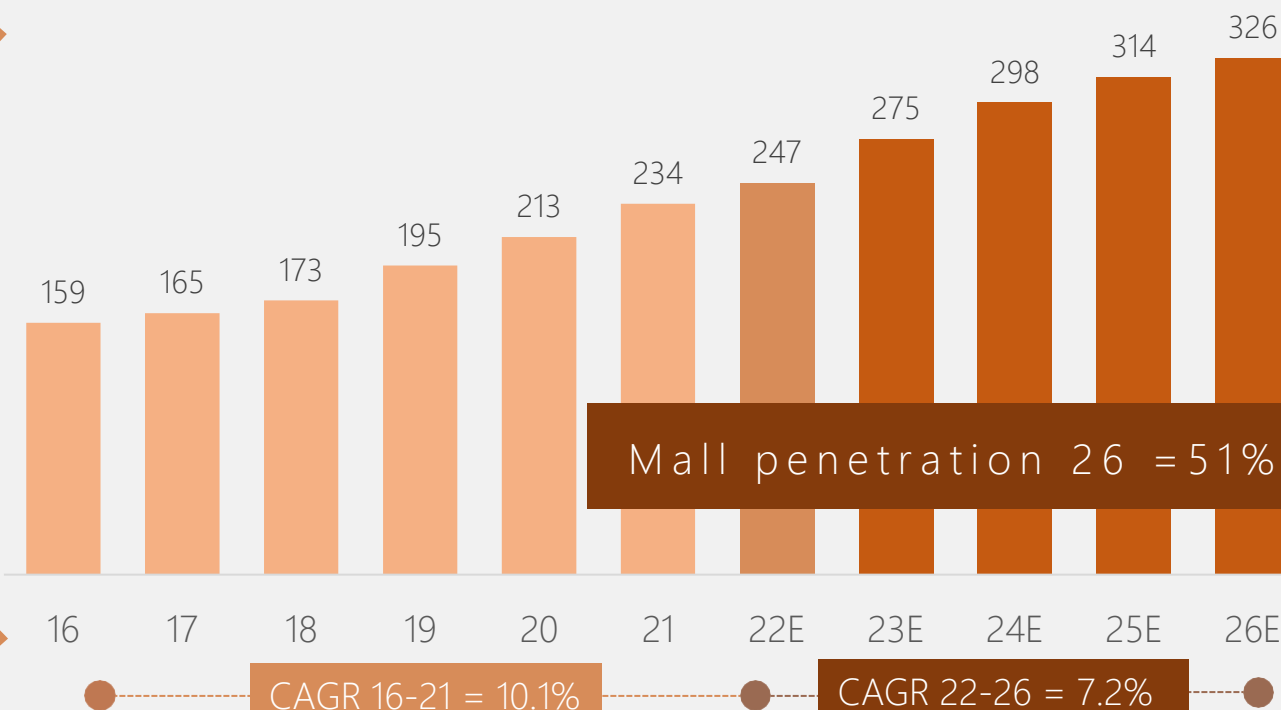


Life Stores Openings

Where can Vivara go to?



Projected Vivara Stores

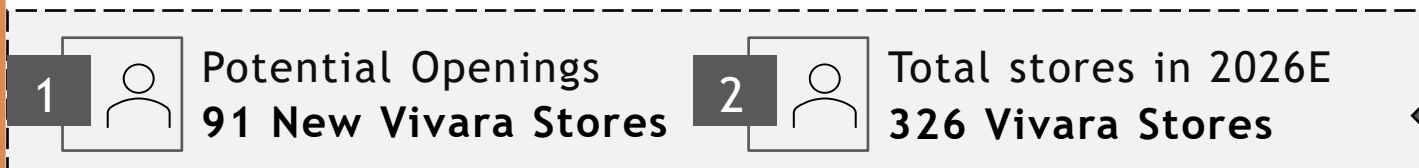
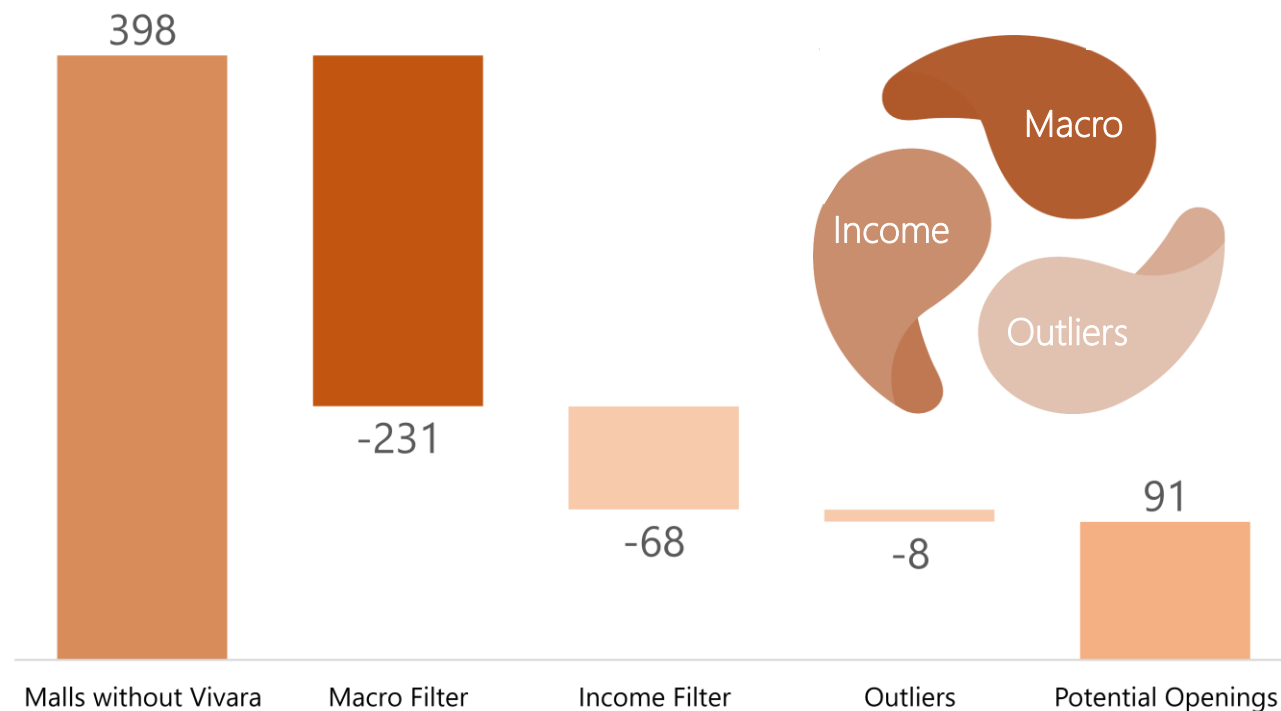


Where can Vivara go to?

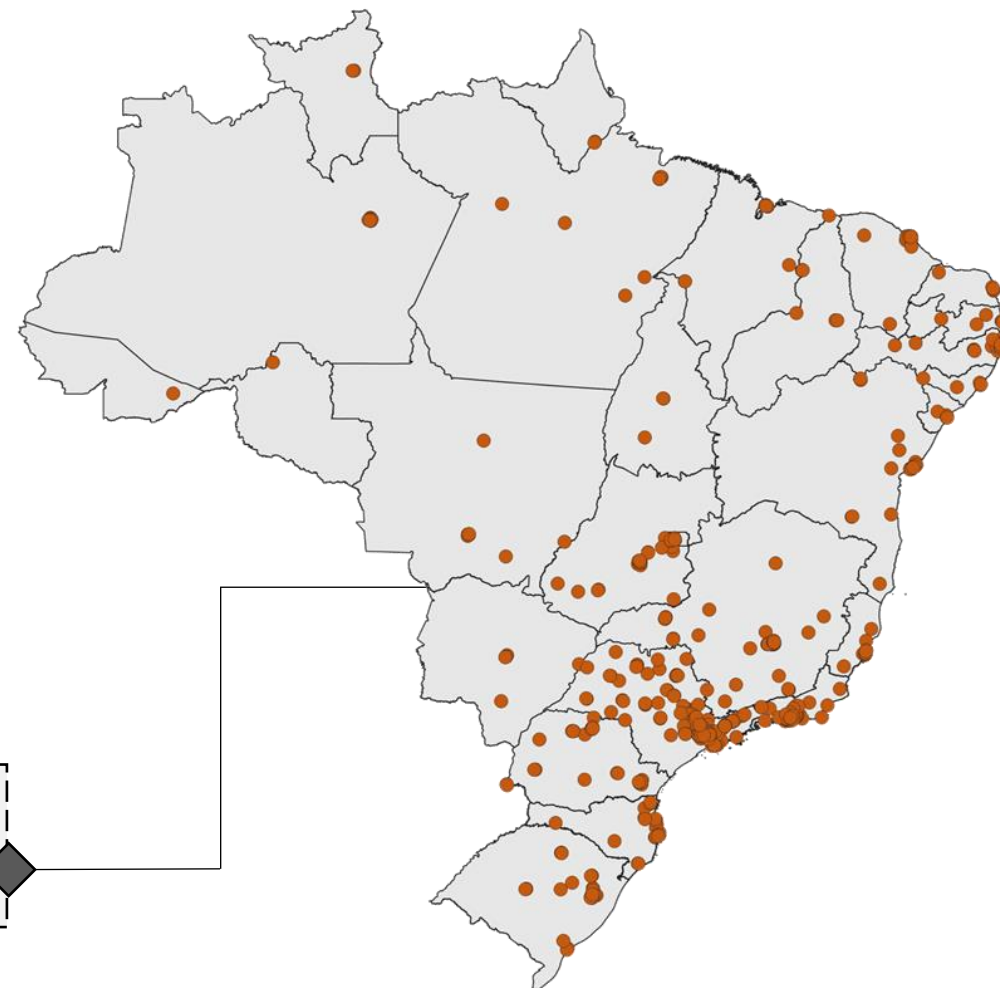
We seek to understand what the opening potential is for Vivara stores in the coming years

3 Filters

Discarded Malls, [#]



Expected Vivara Stores in 2026



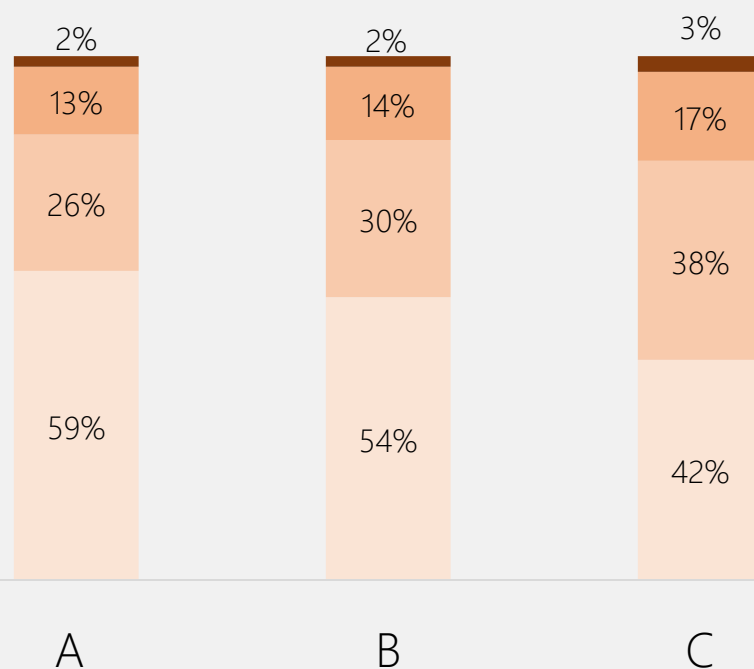
Where can Vivara go to?

We seek to understand what the opening potential is for Vivara stores in the coming years

Different revenues and product mix for different clusters

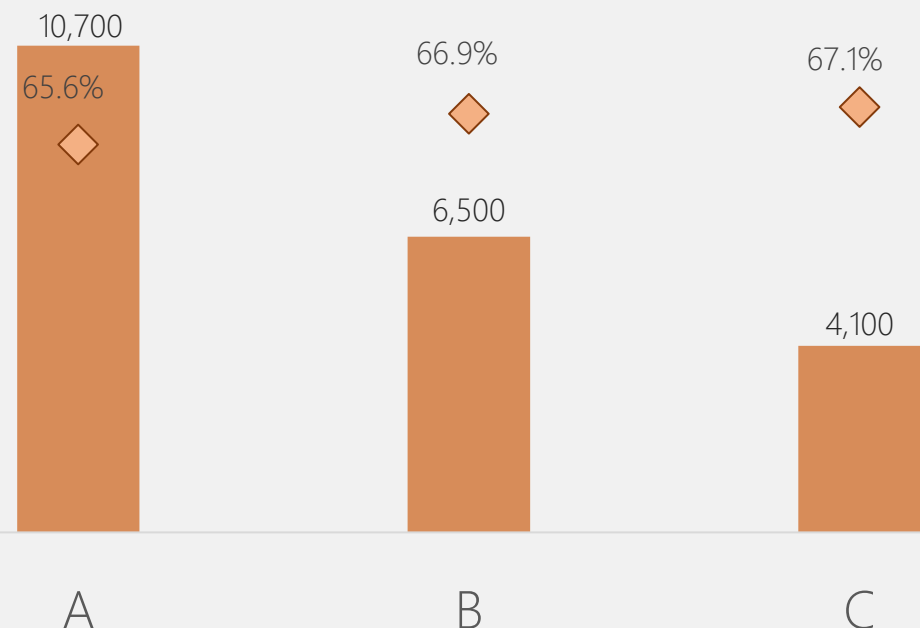
Product mix per cluster, [%]

Jewelry Life Watches Accessories



Annual revenue and Gross Margin per cluster, [BRL MM]

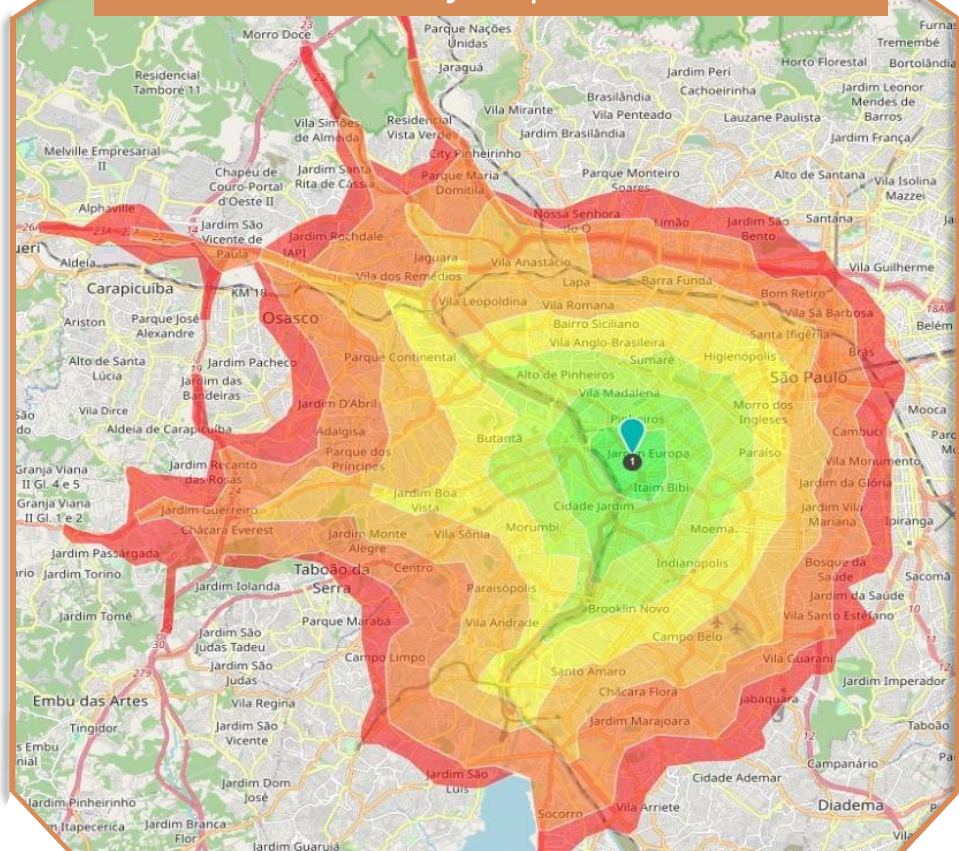
Store's Revenue Gross Margin



Where can Vivara go to? answering through clusters

Vivara can only expand to Clusters B and C, from now on

Isochrone Analysis | Morumbi Mall



Criteria

1



**Population within
a 10-minutes drive**

2

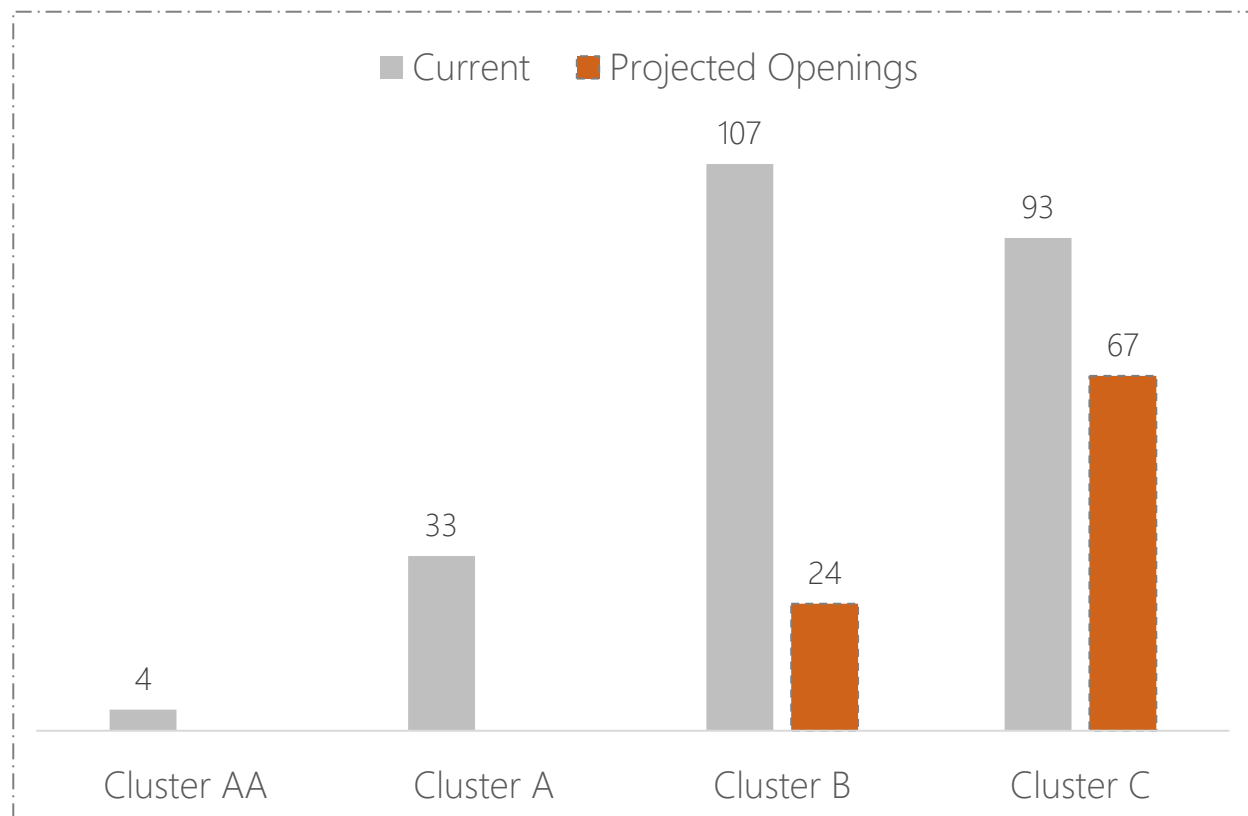


**Income
Exposition**

How should we determine the best opening opportunities?

Clustered Vivara Stores, [#]

■ Current ■ Projected Openings

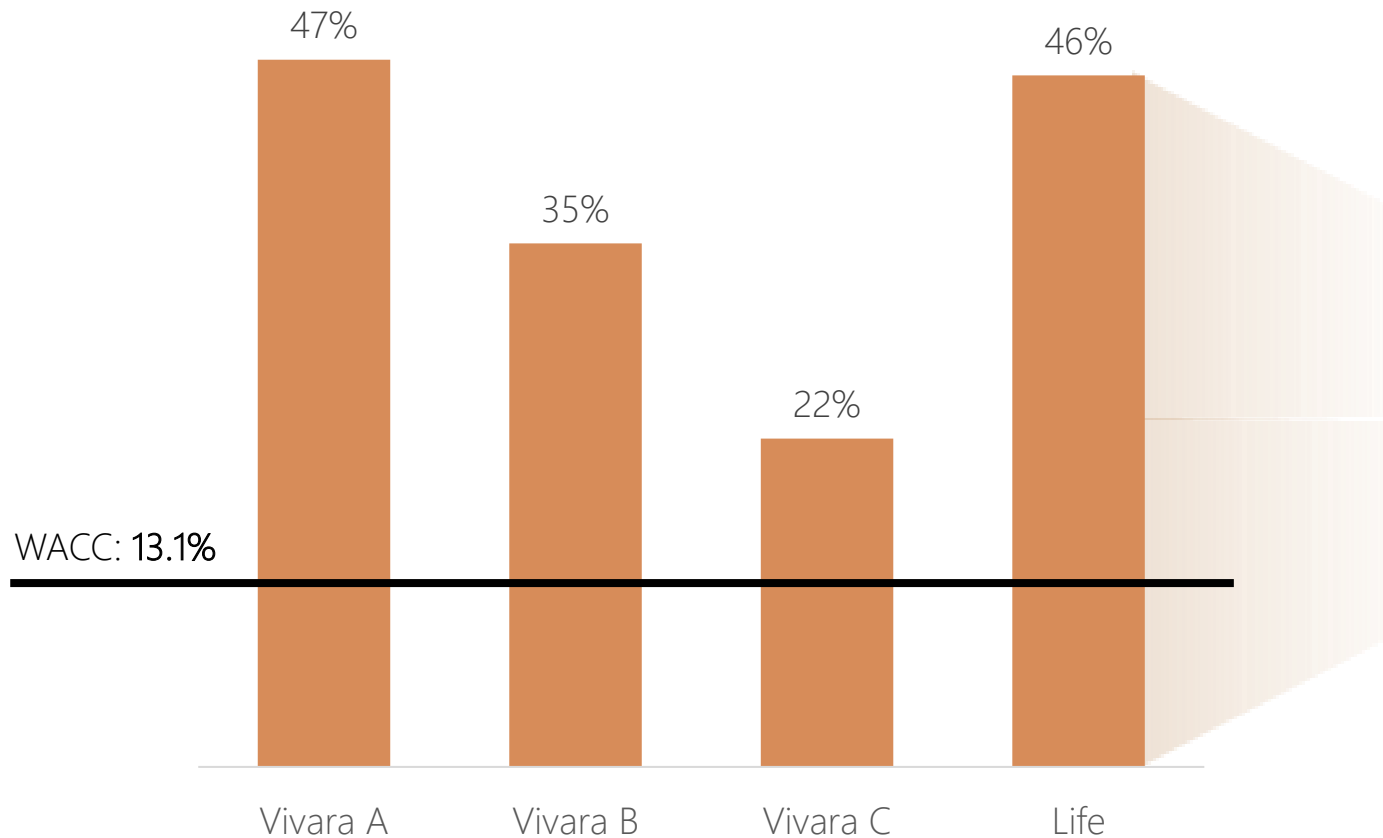


Incredible returns on a silver platter: Growth is good

Vivara's efficient operation is reflected in high returns on investment, way above the cost of capital

Returns on stores are way above cost of capital...

Vivara 4-Wall Analysis – ROIC per cluster, [%]



Silver products

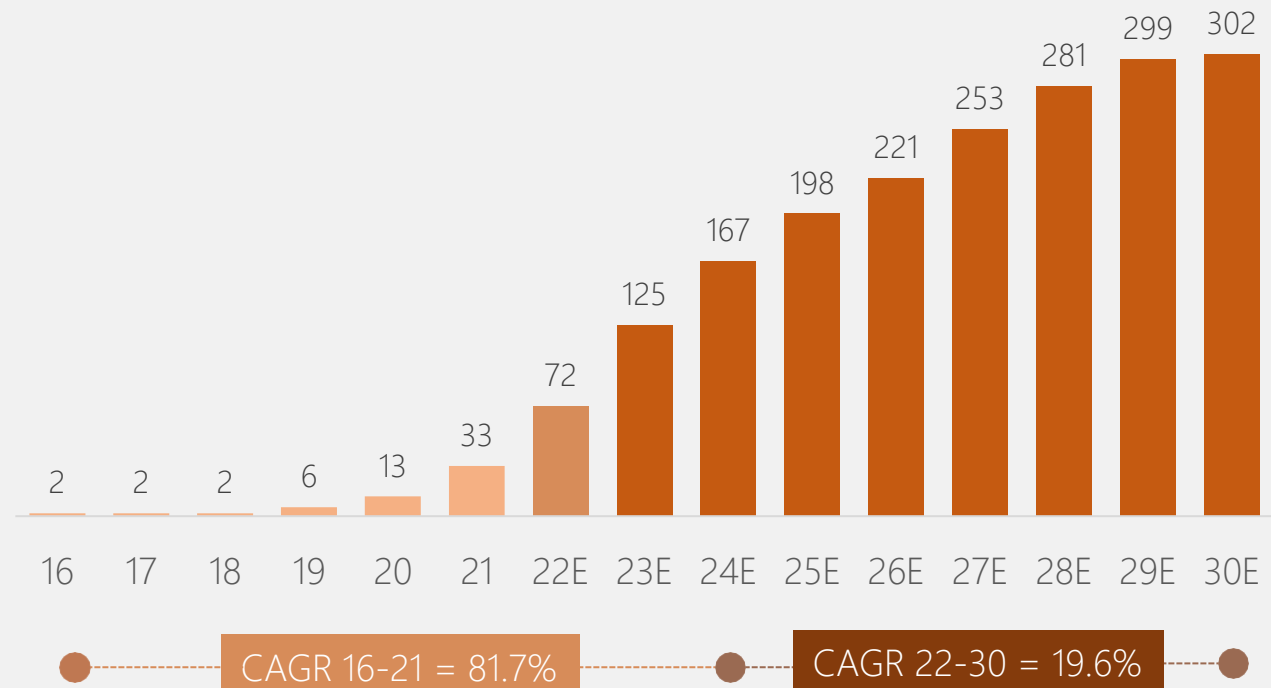
80% gross margin

240 openings in 7 years

Incredible returns on a silver platter: Growth is good



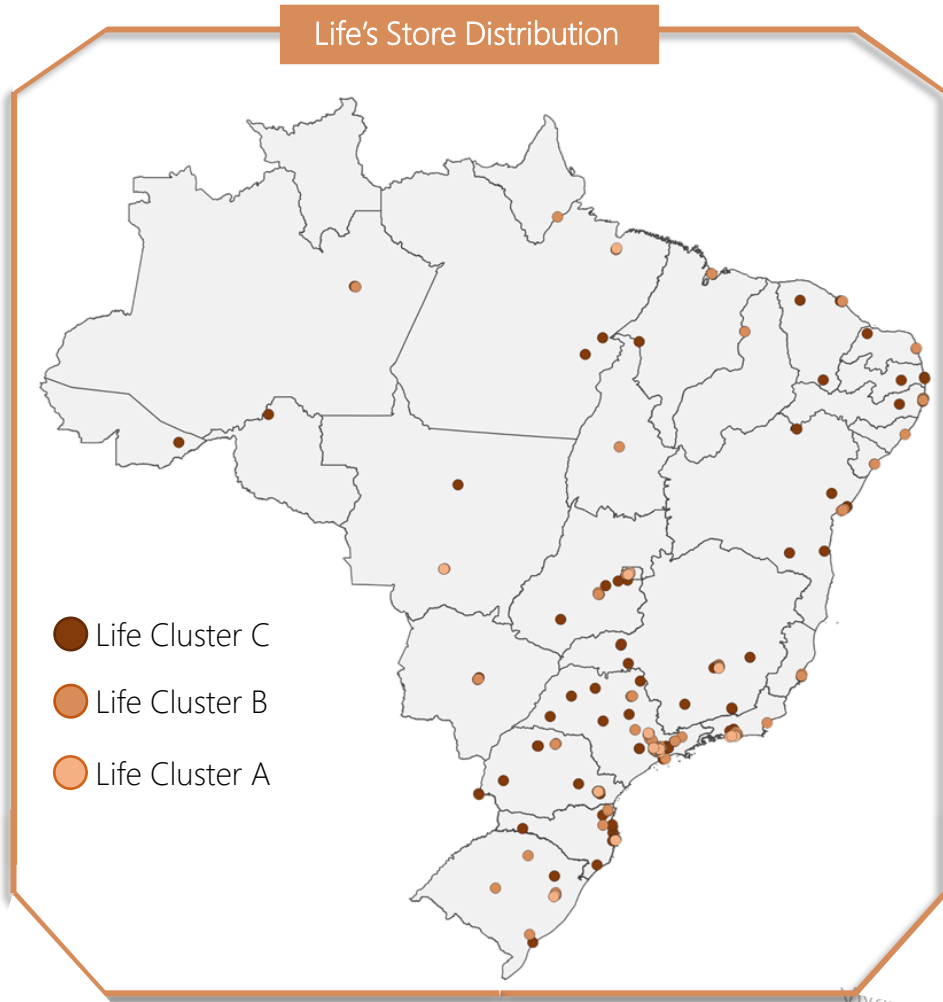
Projected Life Stores



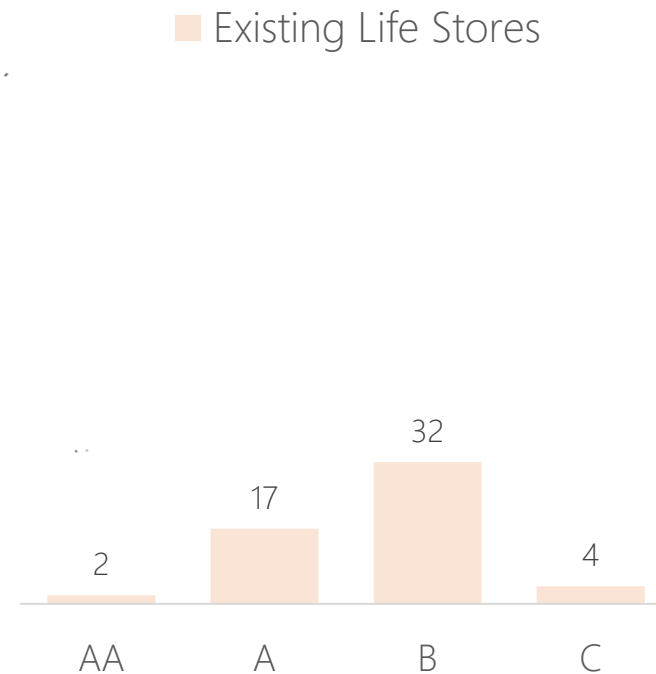
Where can Life go to? Top Brazilian malls

Life stores are going to the best available clusters in the next years

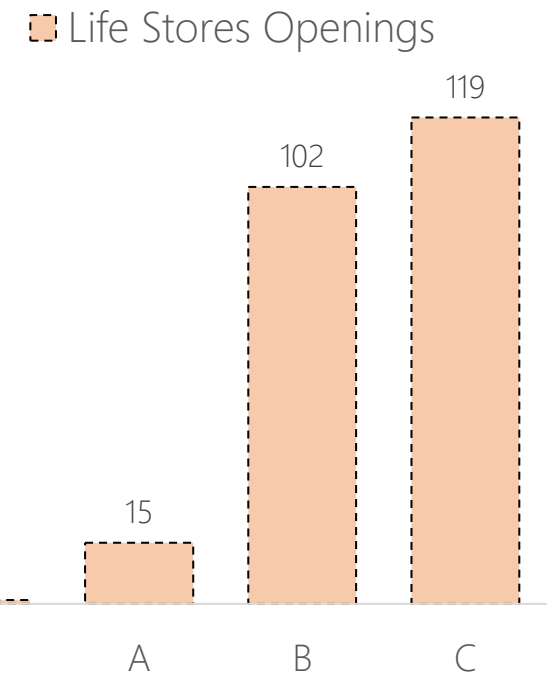
How should we determine the best opening opportunities?



Expected Life Stores Distribution, [#]



Total expected openings:
237

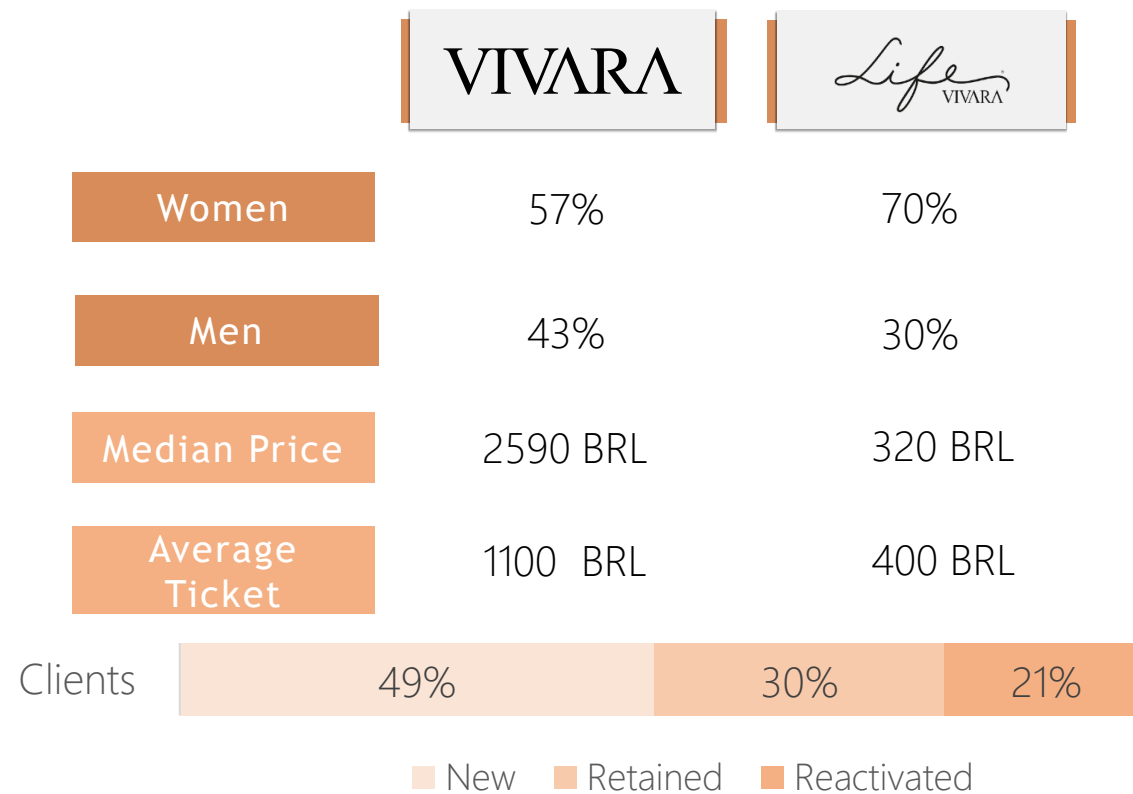


Can a mall support both Life and Vivara stores?

Life Stores have different clients than Vivara and tolerable cannibalization levels

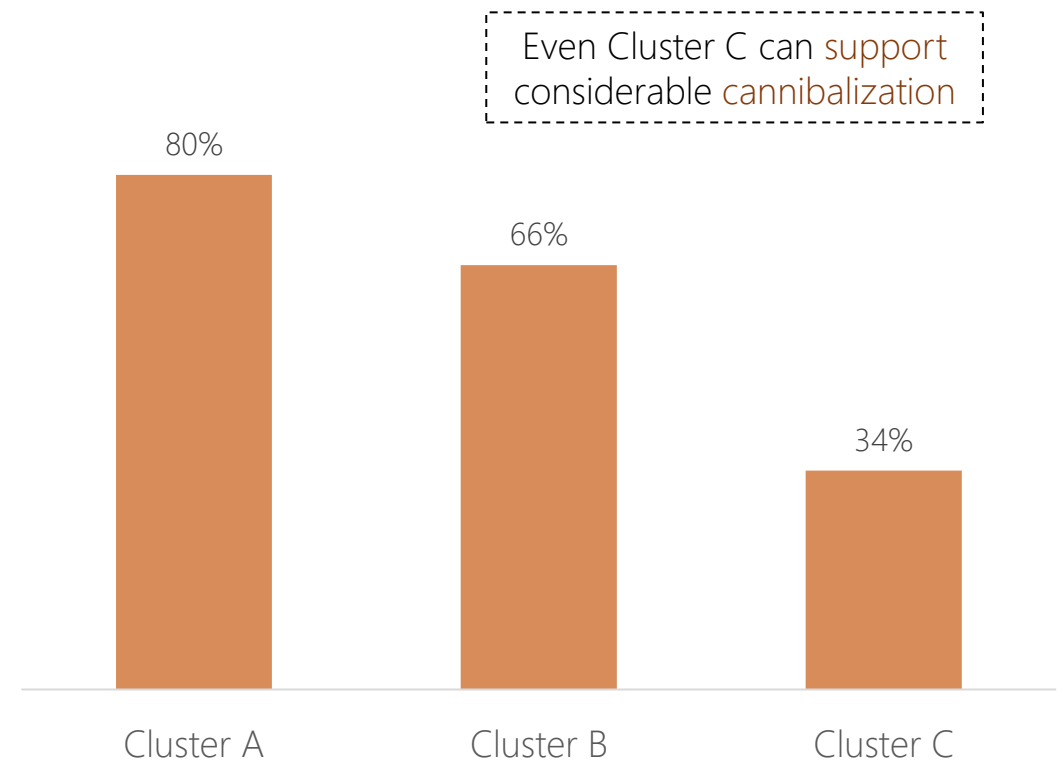
Can Life and Vivara be at the same mall? Different customers and healthy cannibalization levels

Life Standalones and Vivara target different clients...



...Cannibalization under control

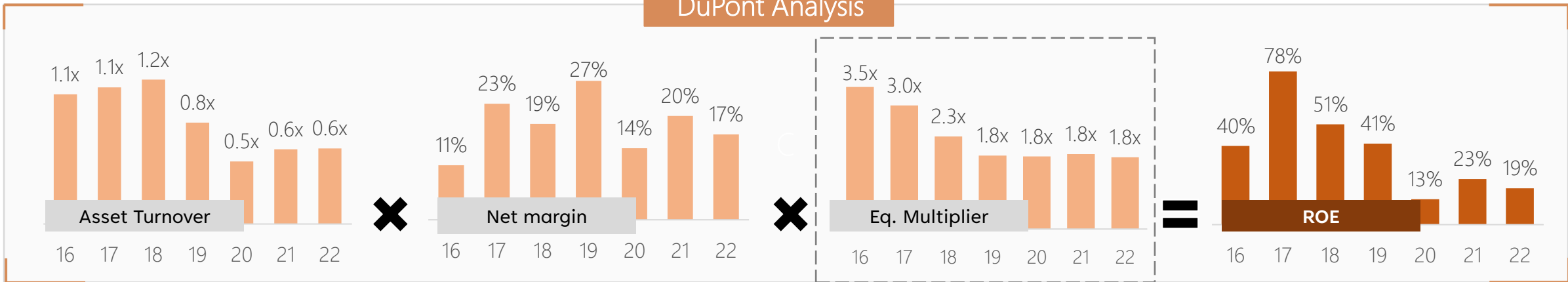
Maximum cannibalization for positive NPV, [%]



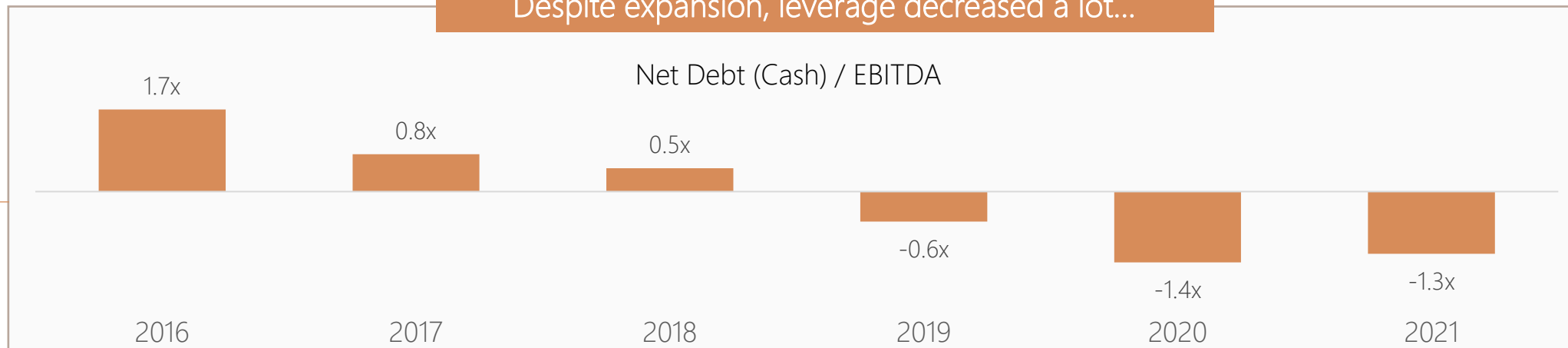
Incredible returns on a silver platter: A shareholder's best friend

Vivara's efficient operation is reflected in high returns on investment, way above the cost of capital

DuPont Analysis



Despite expansion, leverage decreased a lot...

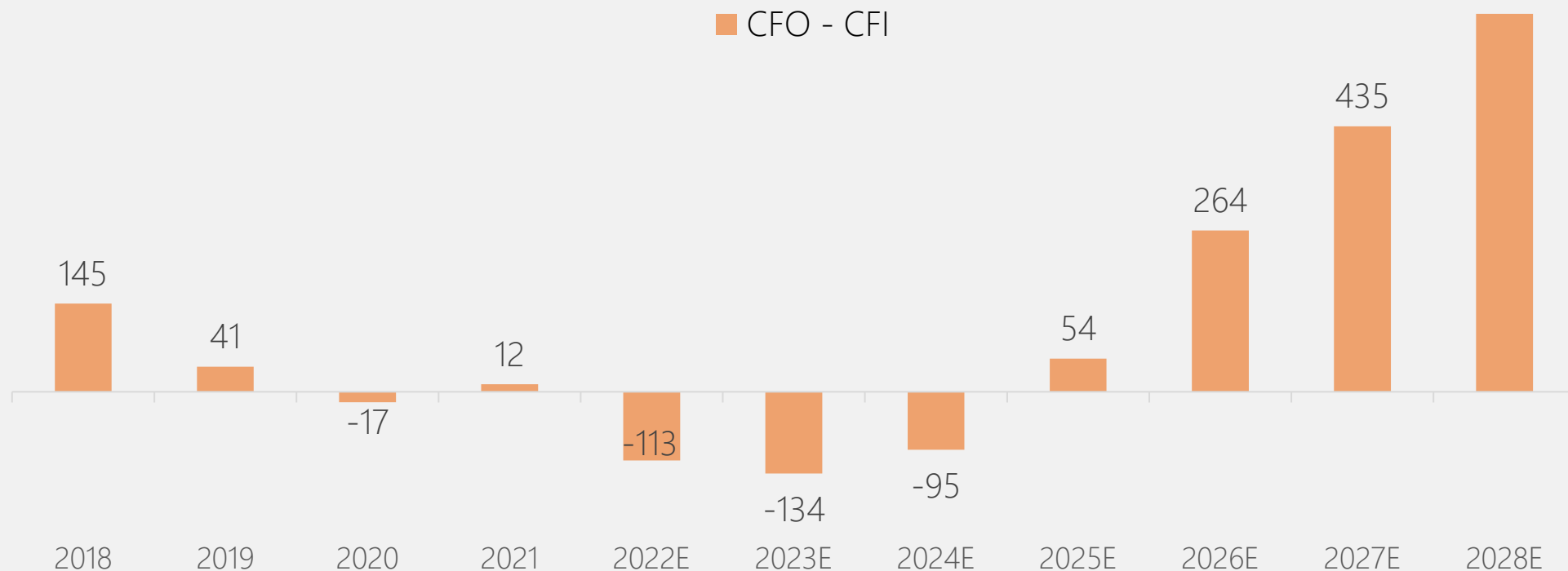


Incredible returns on a silver platter: A shareholder's best friend

Vivara's efficient operation is reflected in high returns on investment, way above the cost of capital

Why own to others, when you can get it done yourself? Amazing cash generation

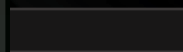
Cash Generation, [BRL mm]



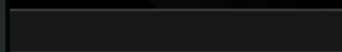
VIVARA



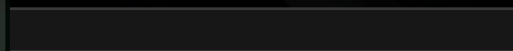
Is it time to engage?



Charming Industry



Brilliant Business Model



Forging The Sector Consolidation

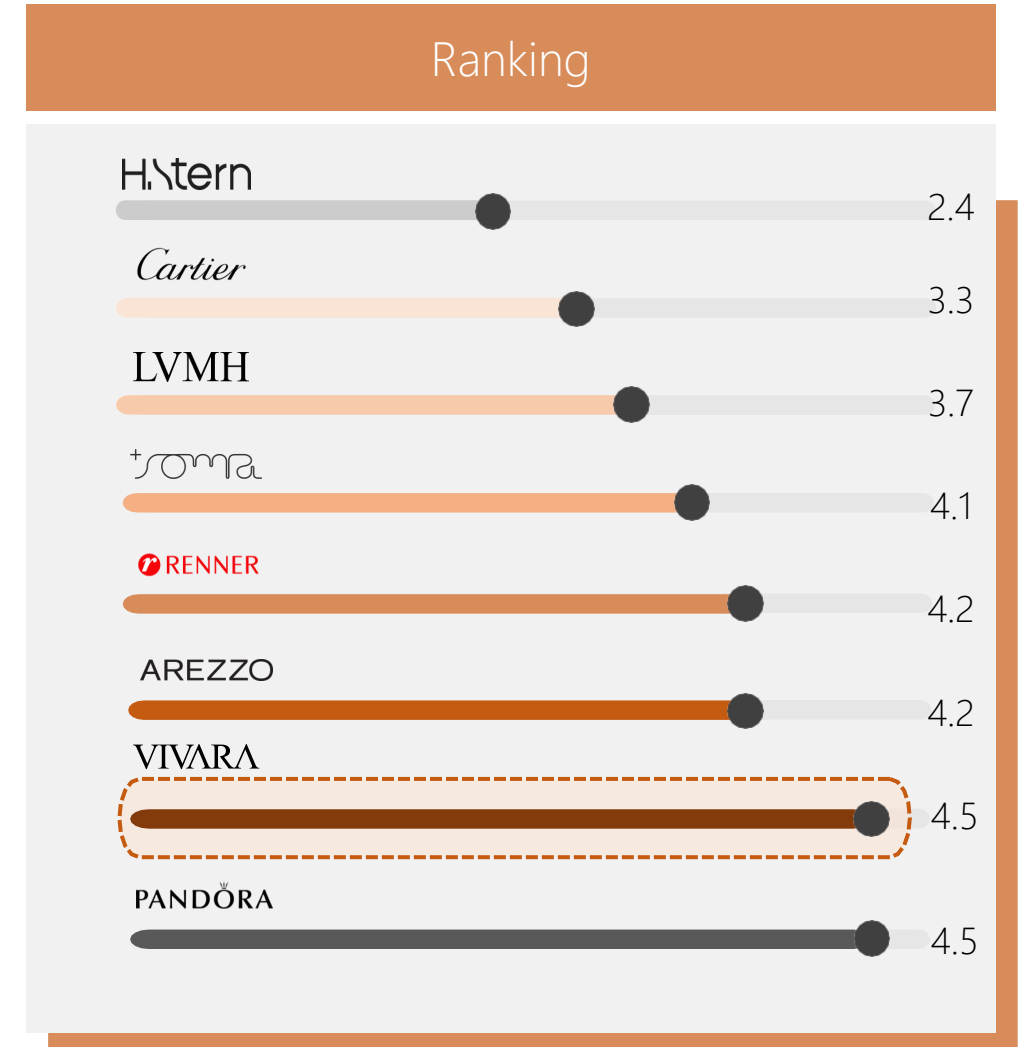


Crystal Clear ESG

How did we conduct our ESG analysis?

One of the main reasons Vivara managed to do an IPO is transparent ESG practices

To evaluate Vivara's ESG efforts we developed a proprietary index



How did we conduct our ESG analysis?

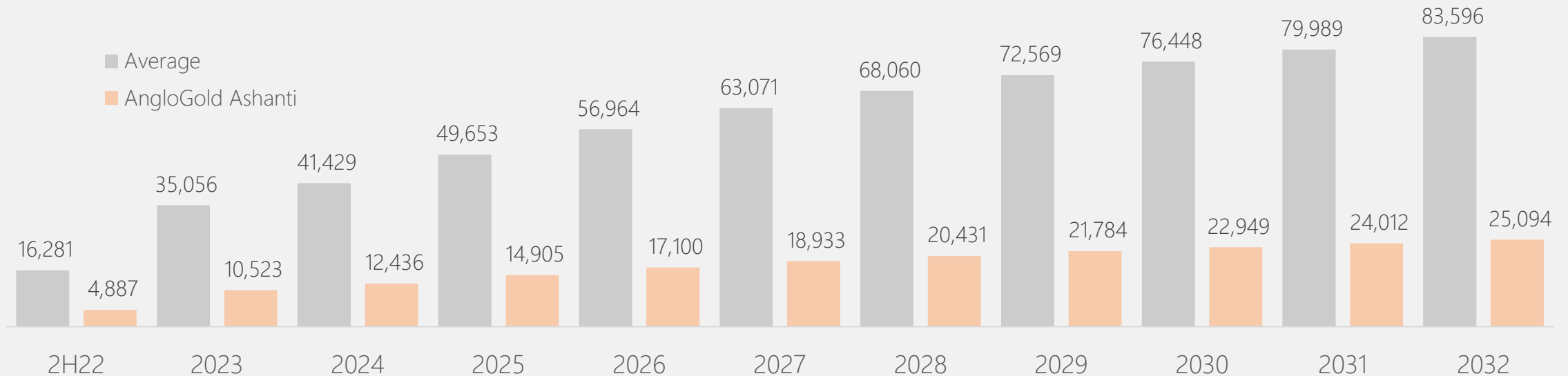
One of the main reasons Vivara managed to do an IPO is transparent ESG practices

VIVARA Sources

Team 2, Nature,
AngloGold Ashanti
Brazil

Environmental | The planet is our most valuable jewel

CO2 Emissions from gold mining, [Tons]



28,700 kg CO2 /Gold Kg



Global average

3X less



Vivara



8,615 kg CO2 /Gold Kg

How did we conduct our ESG analysis?

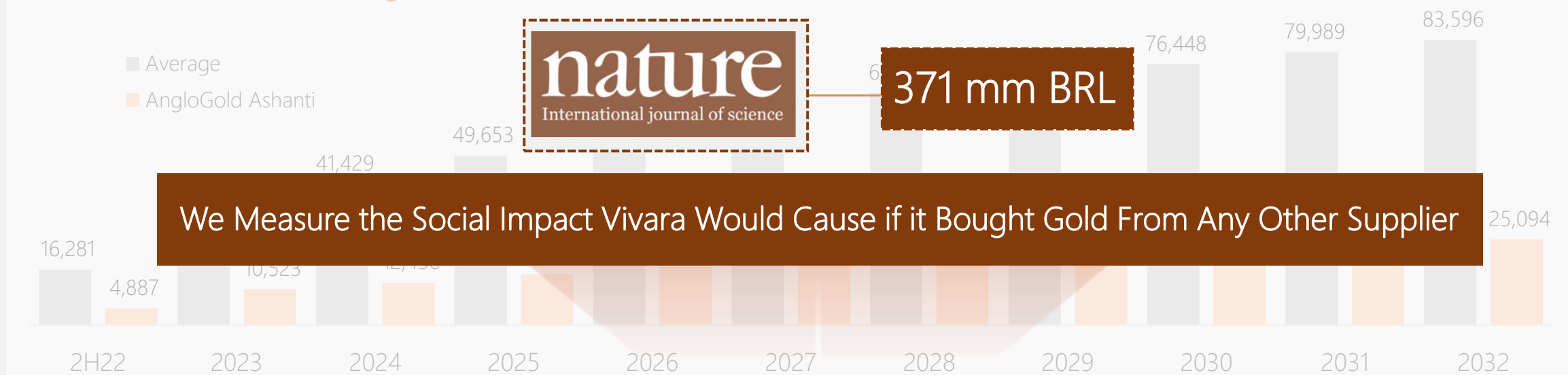
One of the main reasons Vivara managed to do an IPO is transparent ESG practices

VIVARA Sources

Team 2, Nature,
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CO2 Emissions from Gold Mining



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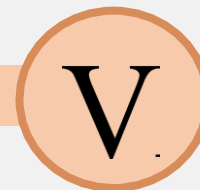


Global average

3X less



Vivara



8,615 kg CO2 /Gold Kg

How did we conduct our ESG analysis?

One of the main reasons Vivara had managed to do an IPO was transparent ESG practices

Social | Satisfied customers where every client counts

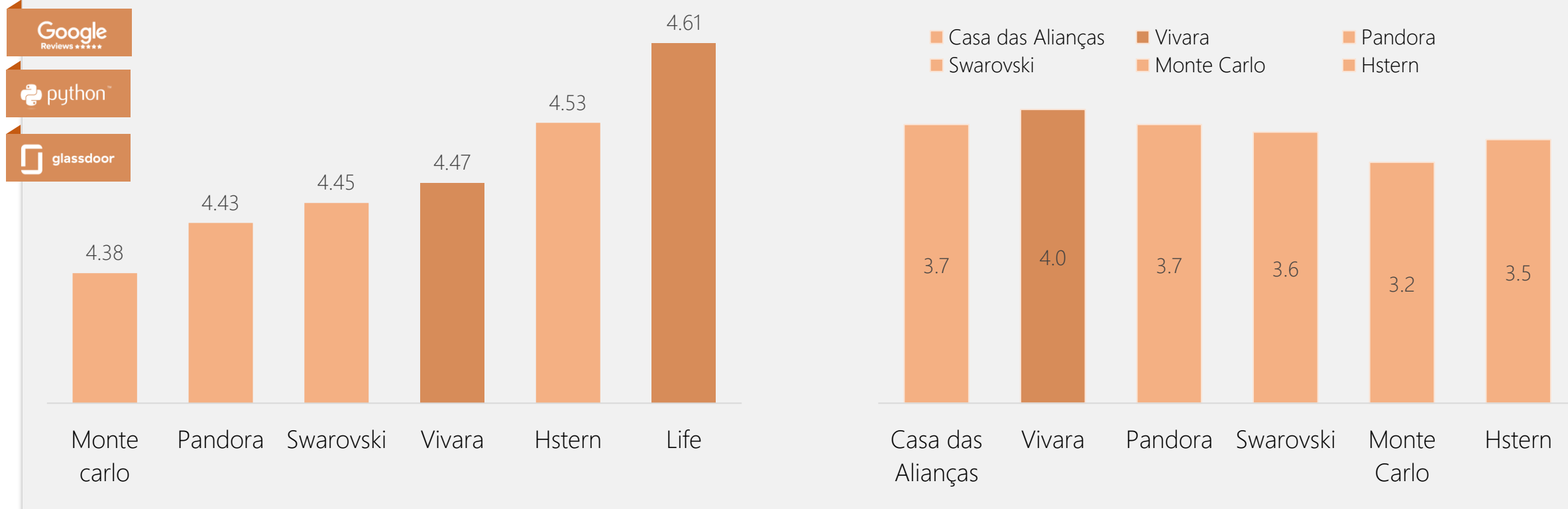
The clients are a priority...

Google rating weighted average, [#]



...but so are the employees

Glassdoor score [#] and recommendation rate, [%]



How did we conduct our ESG analysis?

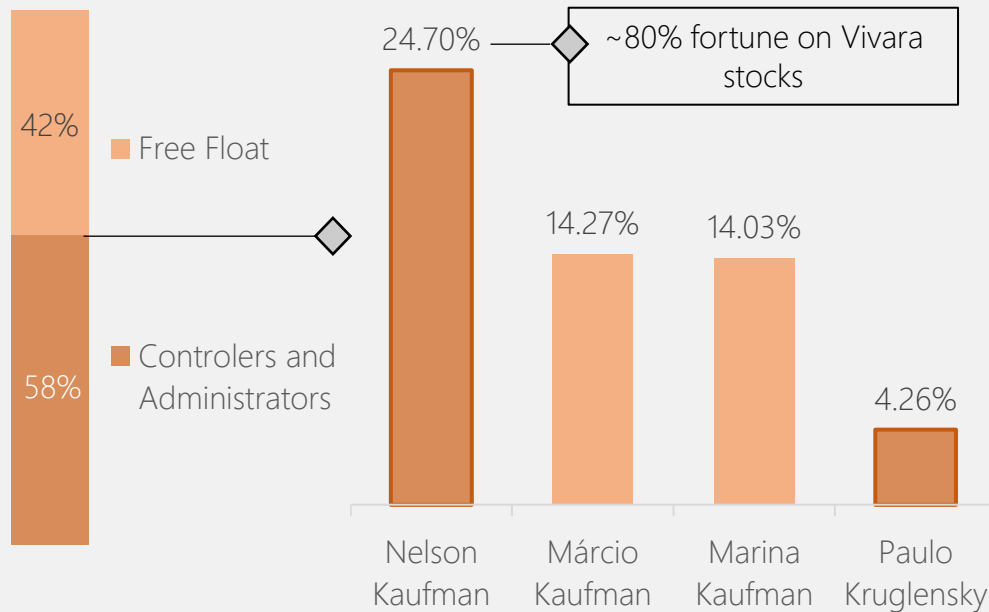
One of the main reasons Vivara had managed to do an IPO was transparent ESG practices

Governance | Skin in the game and interests aligned



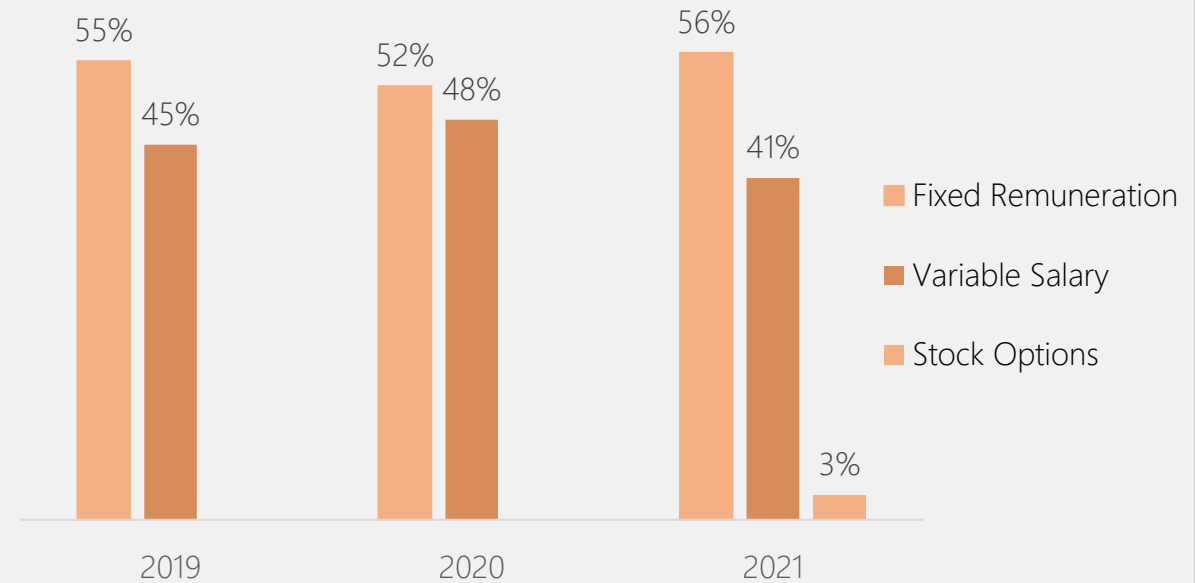
Founding family and CEO have skin in the game

Vivara's Shareholder composition, [%]

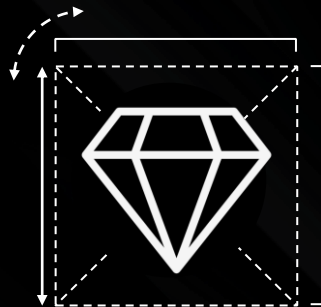


Solid remuneration policy and good track record

Vivara's board compensation plan, [%]



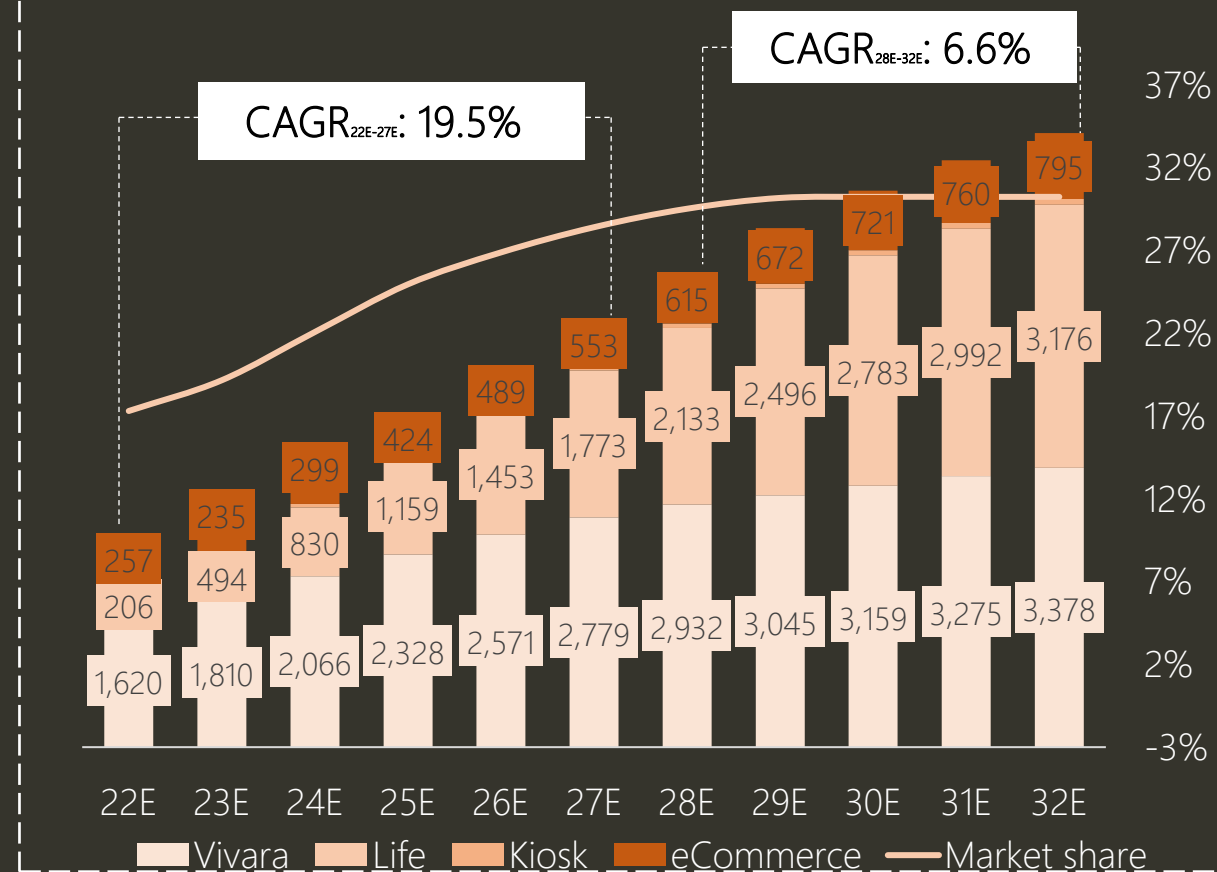
What is the value of
this jewel?



Revenue build up

We project Vivara consolidating sector with a successful expansion

Revenue Build-Up and Market Share, [BRL mm; %]



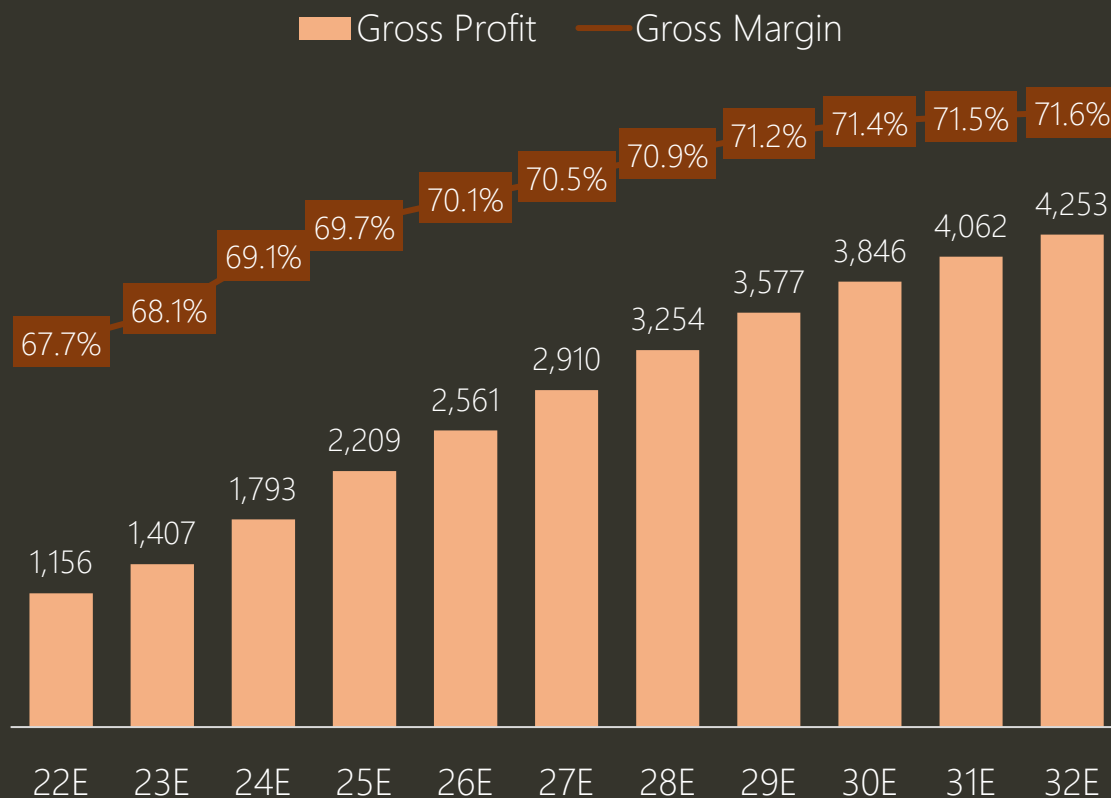
Main premises

- ◆ 91 Vivara and 237 Life openings
- ◆ 8Q maturation per store
- ◆ Life SSS and Vivara SSS
- ◆ Cluster C cannibalization 12.5%
- ◆ eCommerce participation at the revenue mix decreasing

Revenue build up

We project Vivara consolidating sector with a successful expansion

Vivara's Gross Profit and Gross Margin forecast, [BRL mm; %]



Main premises



Jewelry Gross Margin: 67.0%



Life Gross Margin: 81.7%



Watches Gross Margin: 42.6%



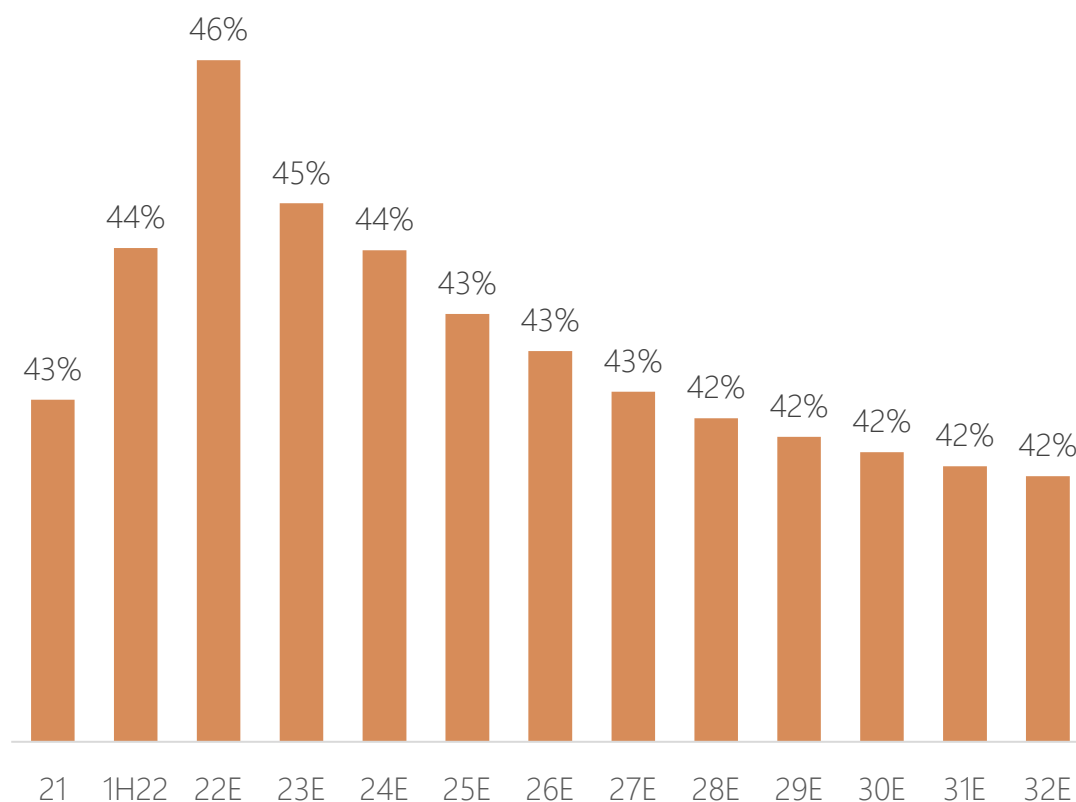
Others Gross Margin: 52.2%

Operational expenses projection

Gains in margin will come mainly by mix change and operational leverage in further years

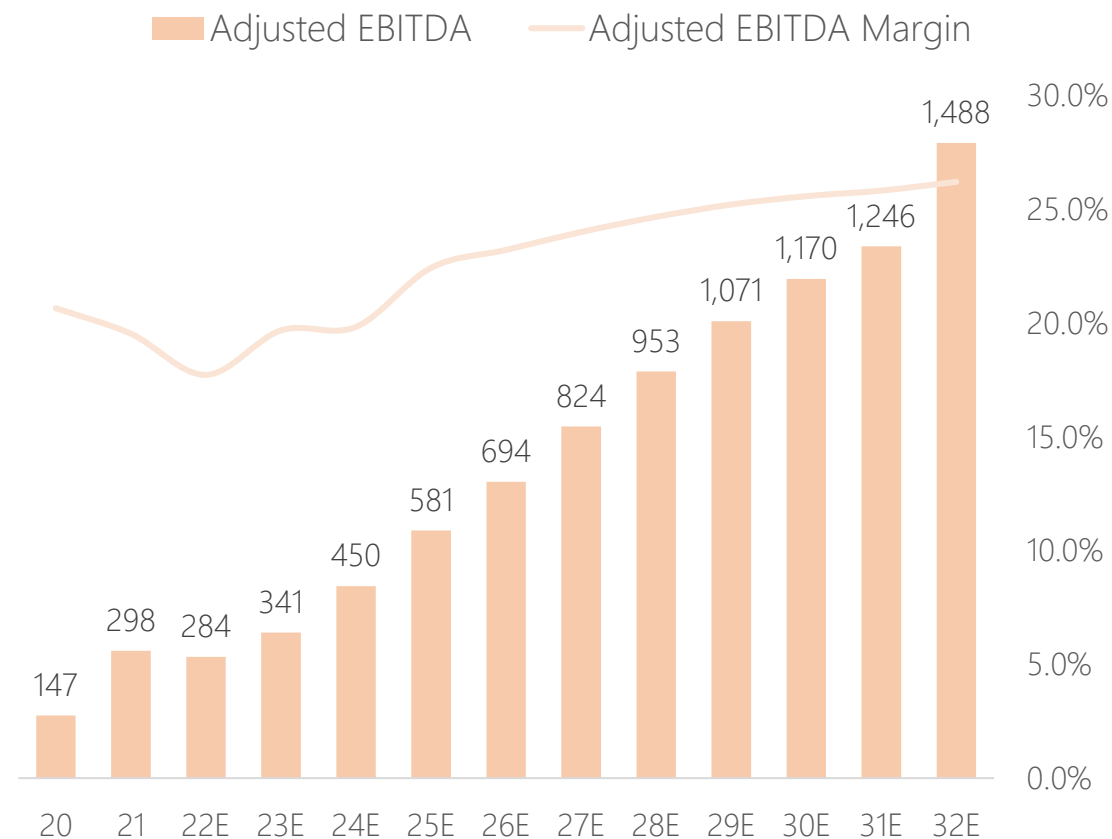
... Expenses being slightly diluted...

(SG&A + Leasing Expenses)/Revenue, [%]



... EBITDA Margin Expansion following maturation...

Adjusted EBITDA and Adjusted EBITDA Margin, [BRL mm; %]

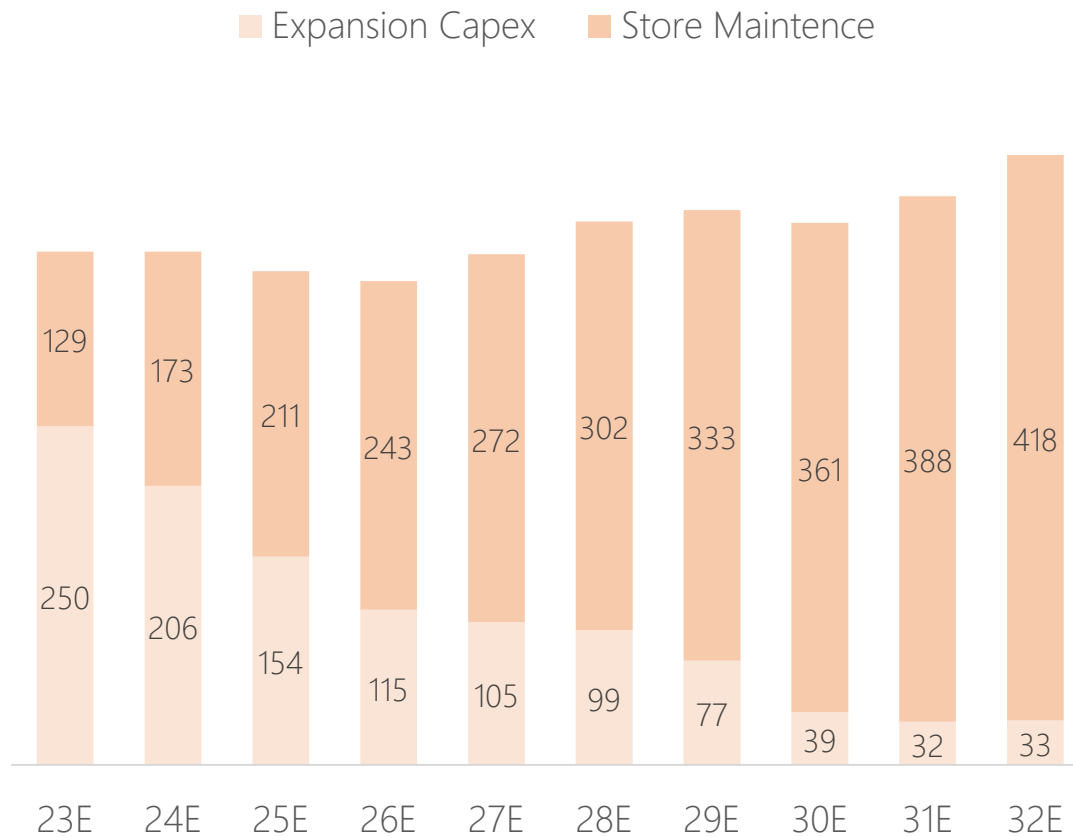


CAPEX and working capital: Following the expansion

We see intense capital expansion in the coming years, followed by maintenance of the cash conversion cycle

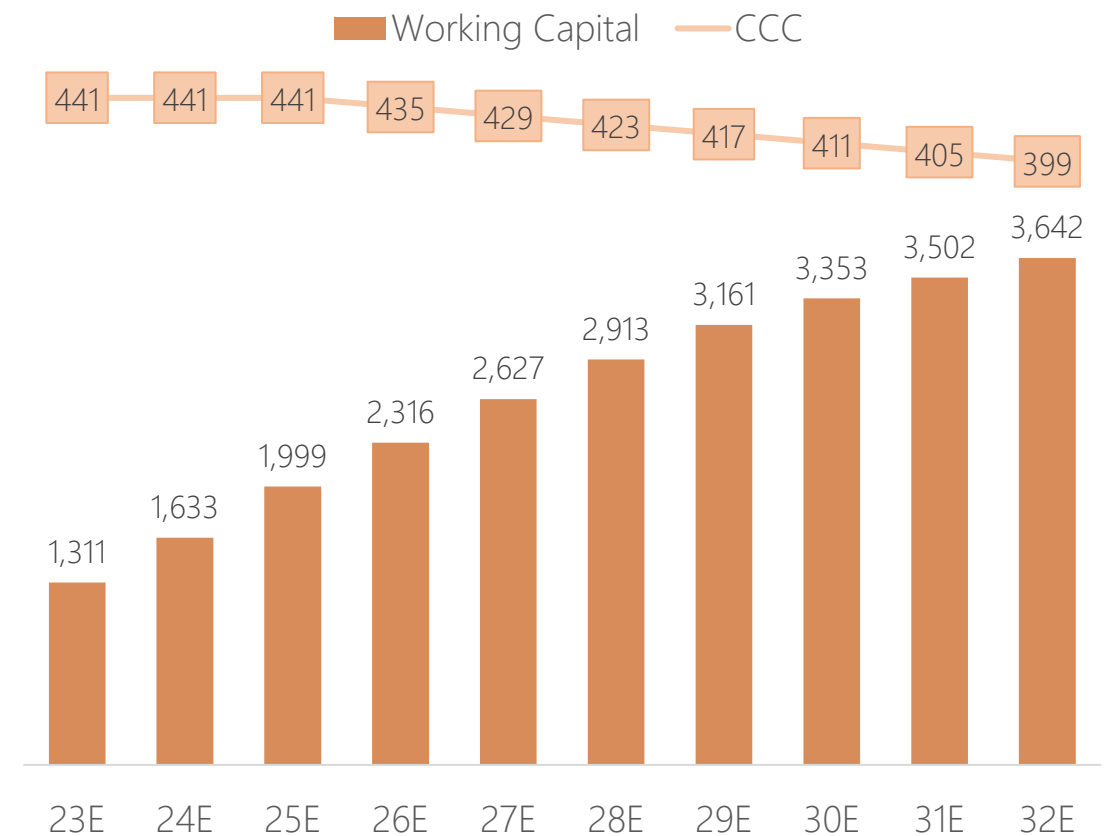
More expansion focused CAPEX in the first projected years...

Expansion and Maintenance CAPEX, [BRL mm]



... with heavy working capital due to inventory dynamics

Working Capital and Cash Conversion Cycle, [BRL mm; Days]

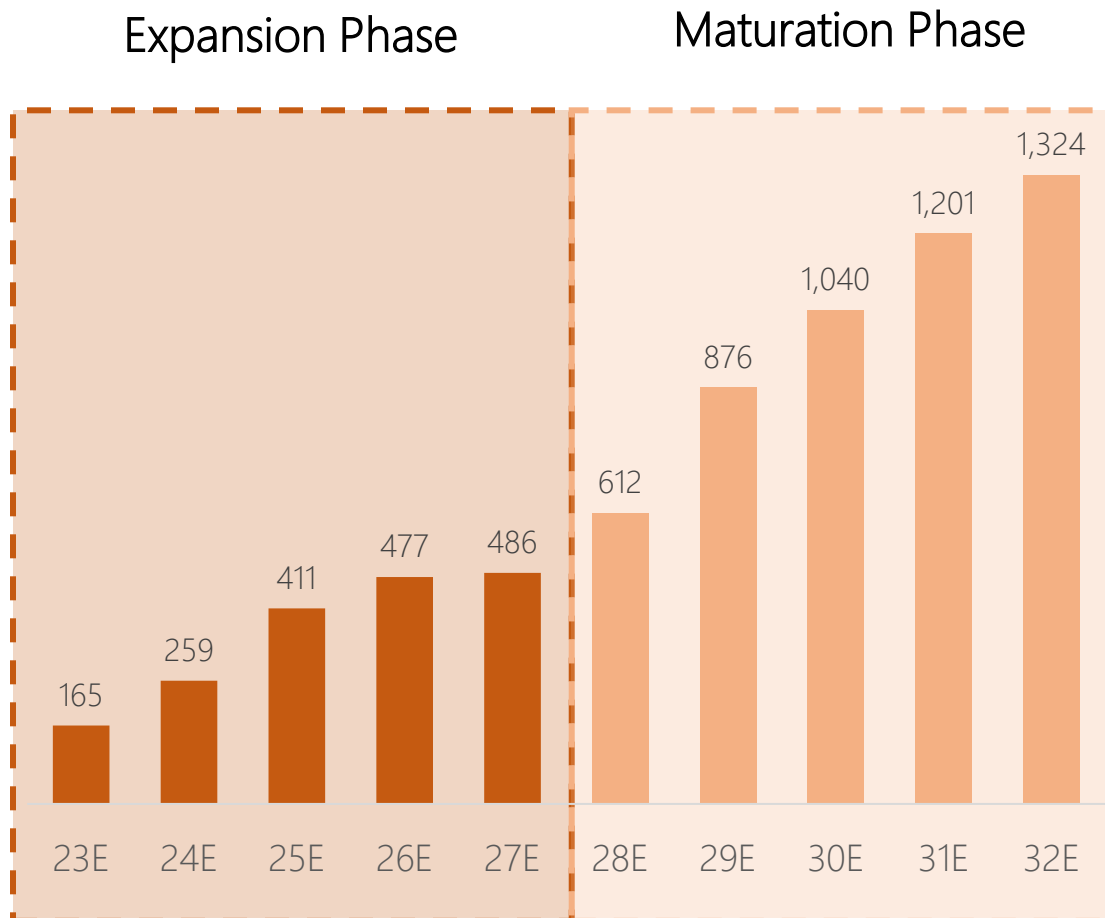


DCF: FCFE R\$ 27.67

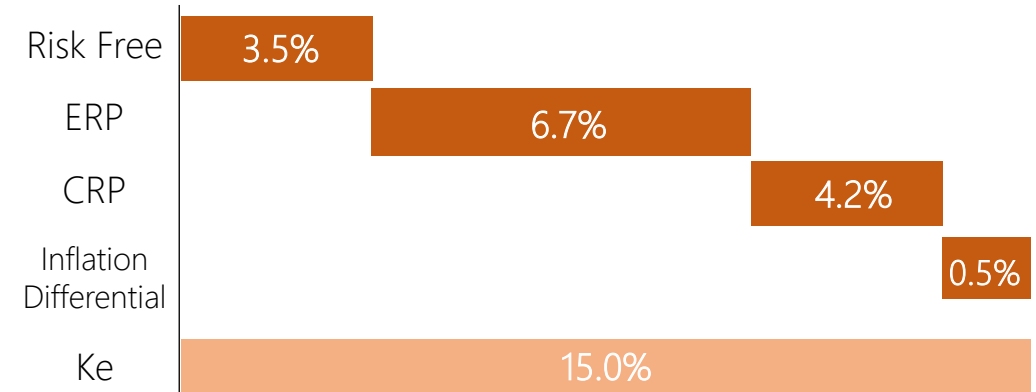
Our FCFE grows at a slow pace at first, speeding it up after the stores mature.

We project a growing FCFE, mainly in maturation phase...

FCFE Projection, [BRL mm]



... which we perpetued by a 4% growth and 15.0% cost of equity



Perpetuity Assumptions:

$g = 4.0\%$

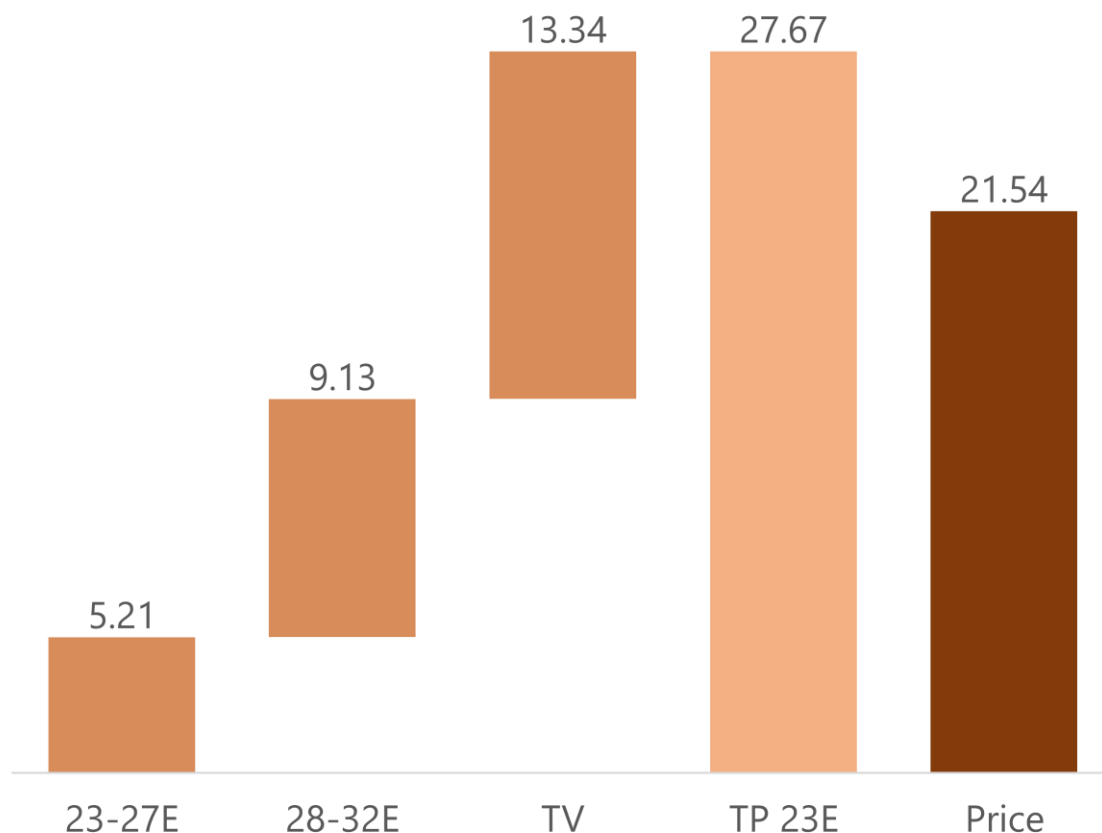
Tax Rate = 34%

Target price decomposition and sensitivity

Not only do we find a target price, but we also try to sensitize it

That led us to a R\$ 27.67 target price at a 28.5% upside...

Vivara's Target Price decomposition, [BRL]



... which we also sensitized by our Ke and perpetuity growth

Ke x g Sensitivity Analysis, [% upside/downside]

		Ke								
		11.5%	12.3%	13.0%	13.8%	14.5%	15.3%	16.0%	16.8%	17.5%
g (perpetuity)	1.0%	46%	35%	26%	18%	10%	4%	-2%	-8%	-13%
	1.8%	52%	41%	30%	21%	13%	6%	0%	-6%	-11%
	2.5%	60%	47%	36%	26%	17%	9%	3%	-3%	-9%
	3.3%	69%	54%	42%	31%	21%	13%	6%	-1%	-7%
	4.0%	80%	63%	49%	36%	26%	17%	9%	2%	-4%
	4.8%	93%	73%	57%	43%	32%	22%	13%	5%	-1%
	5.5%	110%	87%	67%	52%	38%	27%	17%	9%	2%
	6.3%	133%	103%	80%	62%	46%	34%	23%	13%	5%
	7.0%	163%	125%	97%	74%	56%	41%	29%	19%	10%

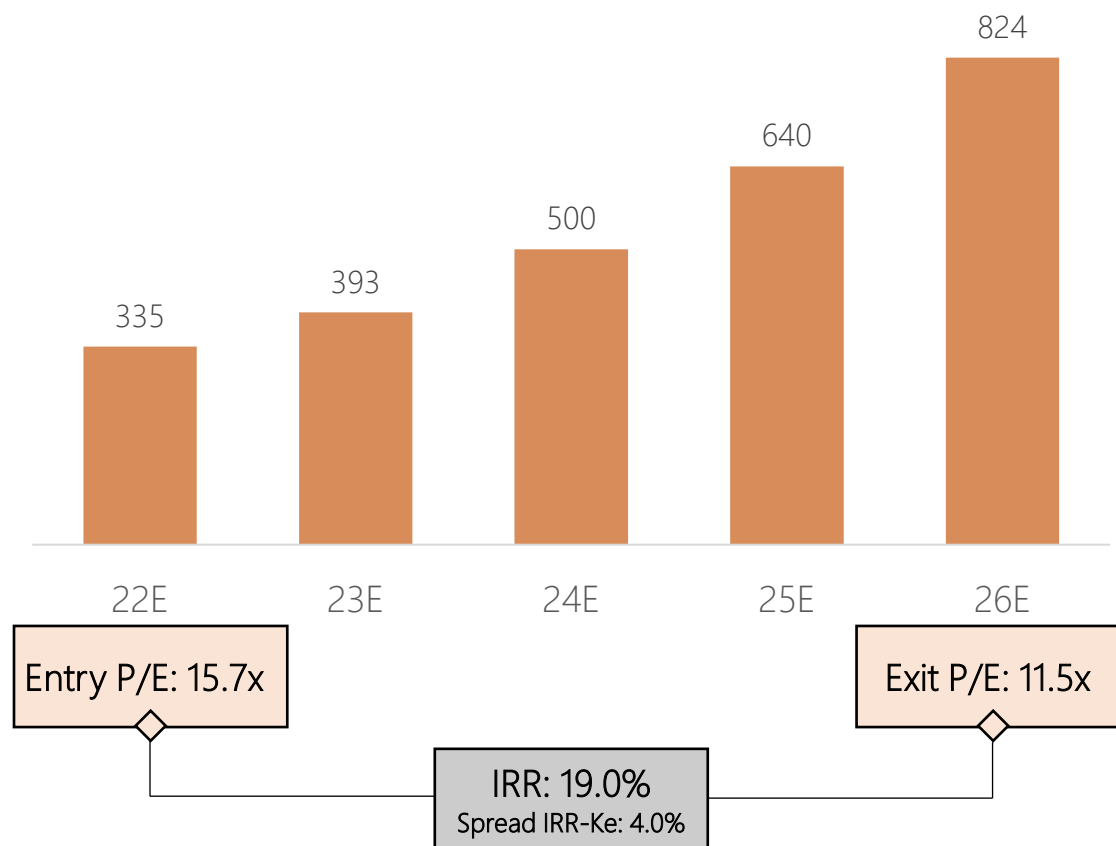
64% **BUY** recommendations

IRR: Great returns for the stock in the long run

We also analyzed and sensitized an IRR analysis with a 11.5x P/E fwd exit multiple in 2026E

With a 11.5x exit P/E we got a 19.3% IRR for VIVA3...

Vivara's Net income, [BRL mm]



... and we are quite conservative if compared to peers

Vivara's comparable P/E table

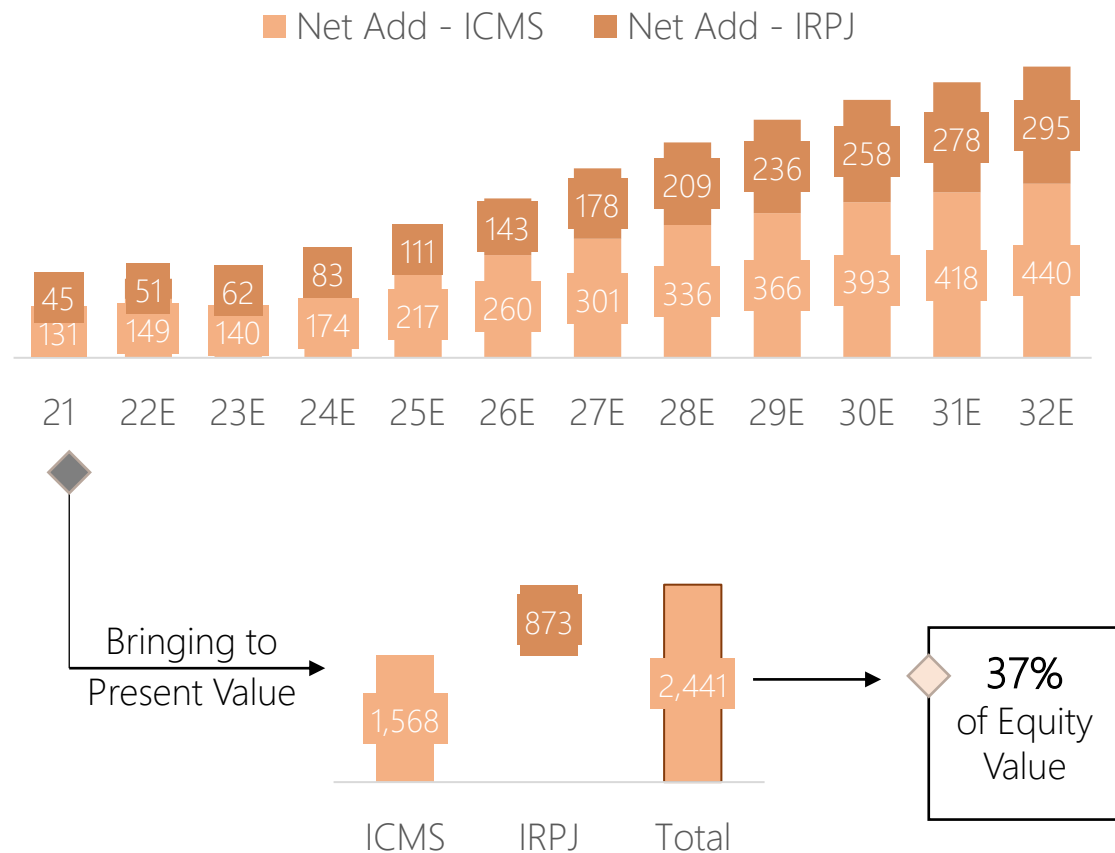
Company Name	P/E	EPS growth	ROE
Grupo Soma	15.9	17.3%	7.4%
Arezzo	19.3	23.1%	20.6%
LVMH	22.1	13.0%	25.6%
Kering	15.8	13.9%	25.4%
Hermes Internacional	43.8	16.9%	27.2%
Brunello Cucinelli	47.0	21.5%	21.5%
Hugo Boss	15.8	24.9%	26.6%
Chow Tai Fook Jewellery	14.8	15.0%	15.6%
Luk Fook	5.9	17.7%	16.9%
Peers Median	15.9	17.3%	21.5%
Country Adjusted Median	12.3	17.3%	21.5%
Vivara 2026E	11.5	15.5%	22.4%

What affects our model the most?

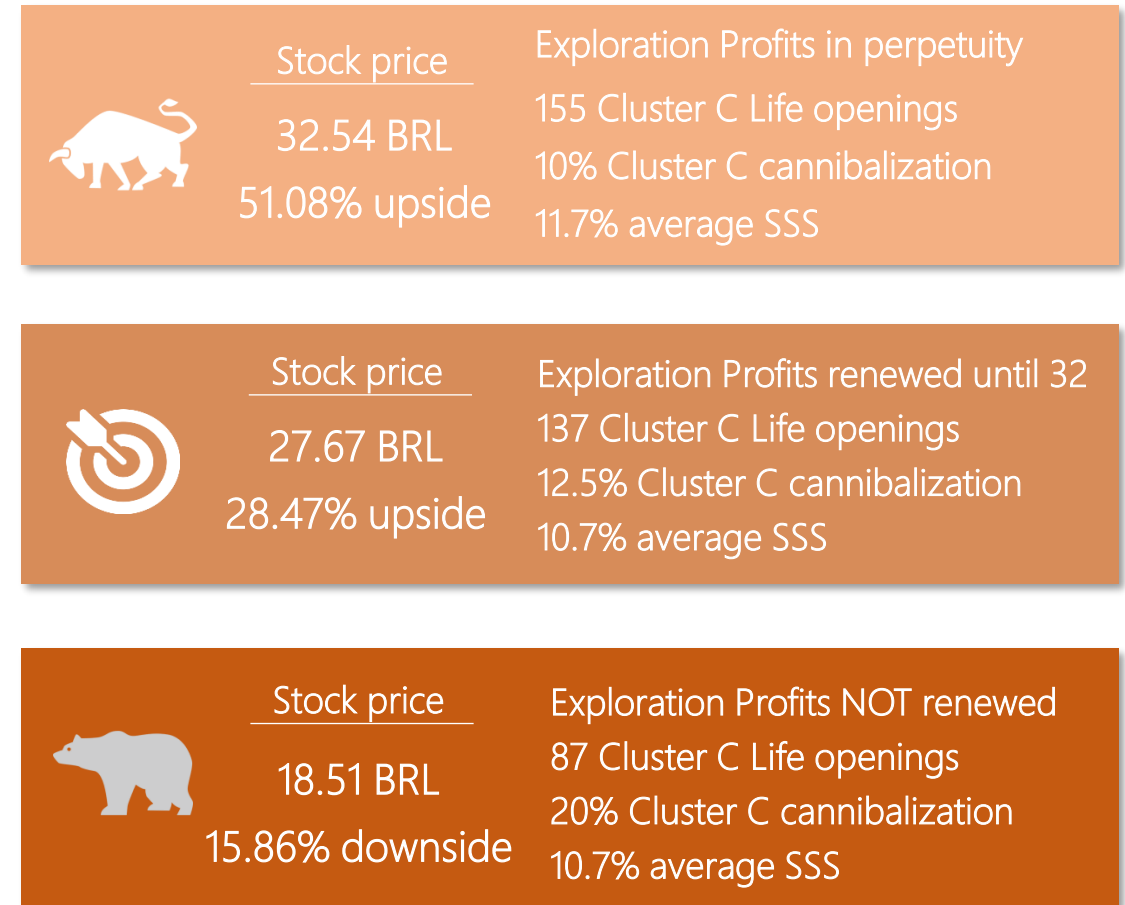
We sensitized important premises and measure the value of Vivara's Tax benefits

Focused on understanding tax benefit role in the price

Tax Benefits projection, [BRL mm]



Sensitivity Analysis: Bull, Base, Bear

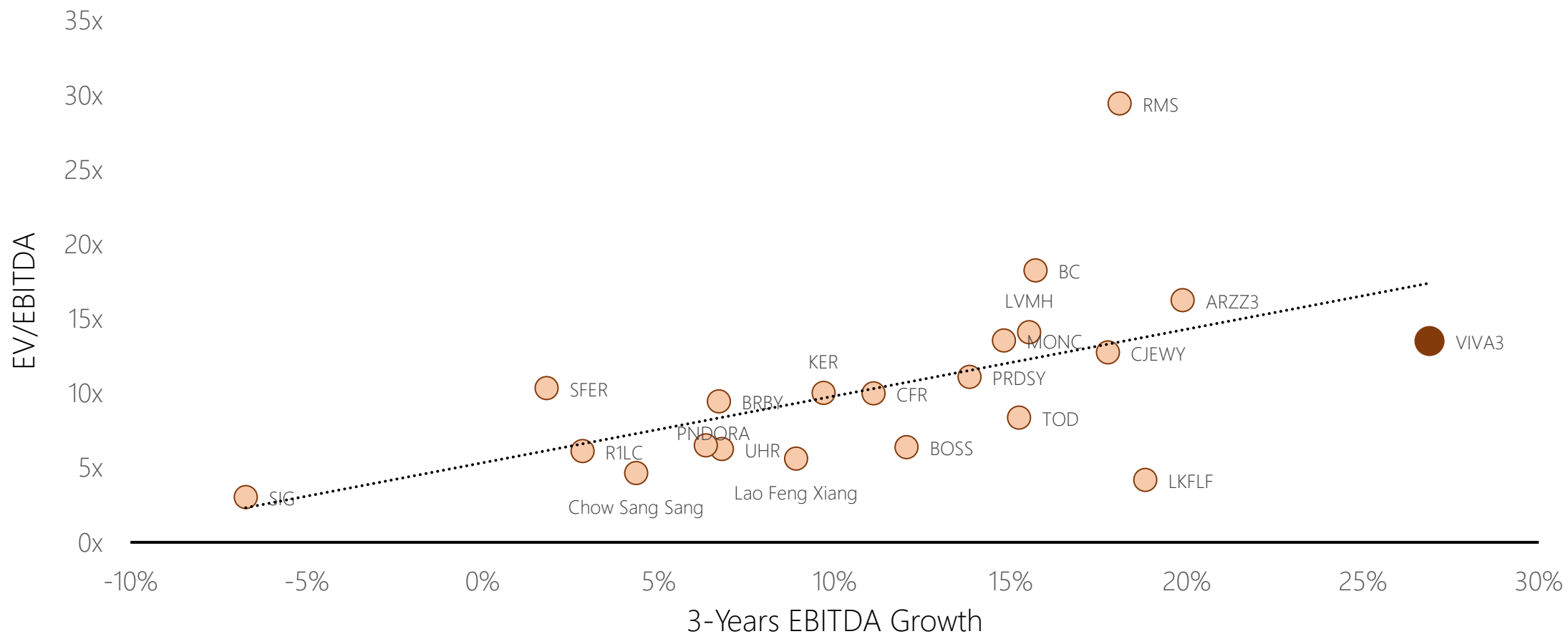


Relative valuation: Multiples

Considering growth potential, we believe Vivara is trading below peers

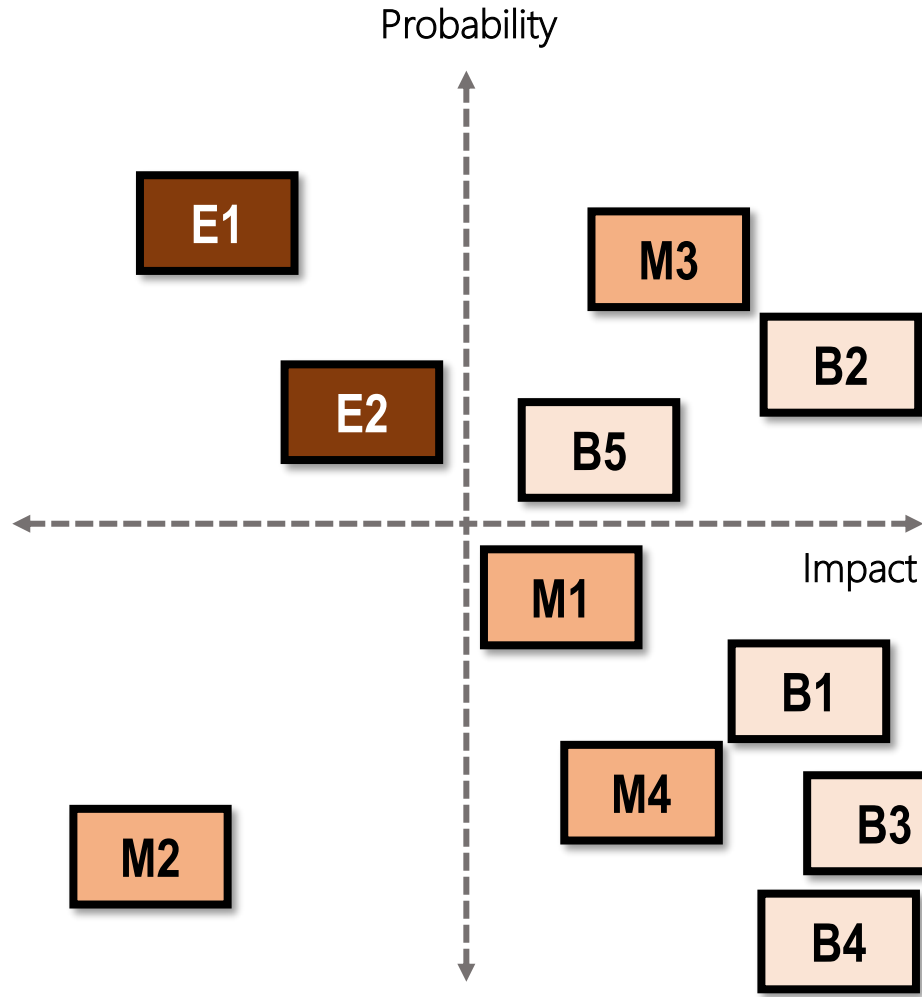
Vivara's growth may have not yet been properly precified...

EV / EBITDA comparison



What are the risks from our thesis?

We distribute the main risks to the thesis in a probability and impact matrix



All risks are relevant, but we highlight three of them...

Business & Operational Risks

- [B1] (-): Acquisitions and unsuccessful integrations
- [B2] (-): Cannibalization worse than expected
- [B3] (-): Renewal problems with Manaus' tax benefits
- [B4] (-): Adversities in the expansion plan
- [B5] (+): Life stores opening outside shopping malls

Market Risks

- [M1] (-): Peers capitalization
- [M2] (-): International players bounce back in Brazil
- [M3] (-): Tax Reform
- [M4] (-): Malls are losing relevance

Macroeconomic Risks

- [E1] (-): Macro crisis and loss of purchasing power
- [E2] (-): Change in consumer preferences

Case in a nutshell



1

Charming industry

- Far from high growth
- Driven by gold and FOREX
- Resilient sector
- Consolidation opportunity

2

Brilliant business

- Unique price and marketing position
- Economies of scale competitive advantage
- Key tax benefits, dribbling fiscal complexity
- Vertical integration providing intelligence

3

Expansion

- Vivara stores do not have much potential openings available
- Life standalones are the expansion's engine
- Cannibalization under control
- Returns above the cost of capital

Presentation Summary

1. Charming Industry

1. Far from high growth
2. Crisis resilient
3. Pandemic retraction
4. COVID-19 aftermath
5. Digital logistics analysis
6. Brazil under penetration

4. Crystal Clear ESG

1. ESG grades
2. Environmental
3. Social
4. Governance

2. Brilliant Business Model

1. Unique Pricing
2. Unique Branding
3. Economies of scale
4. Corners and Foot Traffic
5. Tax system
6. Stable Gross Margins
7. Vivara repasses gold
8. Competitors repass prices
9. Gradual price adjustment
10. Mix Flexibility
11. Product Design Flexibility

3. Forging the sector consolidation

1. Vivara Stores Projection
2. Expansion Filters
3. Clusters dynamics
4. Mall influence area to determine cluster
5. Life Stores Projection
6. Where can Life go to?
7. Cannibalization
8. Returns 4-Wall
9. DuPont analysis
10. Cash generation

5. Valuation

1. Revenue Build-Up
2. Gross margin
3. EBITDA Margin
4. CAPEX and CCC
5. DCF and CAPM
6. Target Price
7. IRR
8. Tax Benefits
9. Bull, base bear
10. Multiples
11. Risk Matrix

Appendix Index

1. Valuation

- Income Statement
- Balance Sheet
- Adjusted EBITDA
- Cash Flow Statement
- FCFE and FCFF
- Cost of Capital
- Working Capital
- Openings
- Revenue Build Up
- SG&A
- Trading Comp
- Tax Benefits
- Cannibalization sensitized
- IRR Sensitized
- Why is growth 4%?
- SSS
- Returns Projection
- Leverage Projection

2. Industry

- Sector Drivers
- High-end Clients
- eCommerce market size

3. Analysis

- eCommerce analysis
- Tax Reforms
- Foot Traffic
- Expansion
- Isochrone
- Clusterizing
- Daily web-scraping

4. ESG

- Index
- Ternary Plot
- The Kaufman family
- Corporate Governance
- CO2 Social Impact
- Store Ratings

5. Others

- Field Research
- HStern
- Gross Margin Sanity Check
- 4-Walls
- Cluster Details
- Cannibalization Threshold
- Historical Prices
- Country Adjusted Multiples
- Tornado analysis

Appendix A – Income Statement

Income Statement	[Unit]	2020	2021	1H22	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
Gross Revenue	[BRL MM]	1,338,142	1,842,455	998,142	2,114,741	2,580,594	3,240,709	3,958,374	4,562,337	5,158,185	5,736,244	6,273,270	6,726,614	7,093,720	7,420,301
growth YoY	[%]	-10.2%	37.7%	-	14.8%	22.0%	25.6%	22.1%	15.3%	13.1%	11.2%	9.4%	7.2%	5.5%	4.6%
Deductions	[BRL MM]	(290,595)	(376,068)	(191,328)	(406,703)	(515,432)	(647,279)	(790,621)	(911,252)	(1,030,263)	(1,145,721)	(1,252,983)	(1,343,531)	(1,416,855)	(1,482,084)
growth YoY	[%]	-8.8%	29.4%	-	8.1%	26.7%	25.6%	22.1%	15.3%	13.1%	11.2%	9.4%	7.2%	5.5%	4.6%
% of Gross Revenue	[%]	-21.7%	-20.4%	-19.2%	-19.2%	-20.0%	-20.0%	-20.0%	-20.0%	-20.0%	-20.0%	-20.0%	-20.0%	-20.0%	-20.0%
Net Revenue	[BRL MM]	1,047,547	1,466,387	806,814	1,708,038	2,065,162	2,593,430	3,167,753	3,651,085	4,127,922	4,590,523	5,020,287	5,383,083	5,676,865	5,938,217
growth YoY	[%]	-10.6%	40.0%	-45.0%	16.5%	20.9%	25.6%	22.1%	15.3%	13.1%	11.2%	9.4%	7.2%	5.5%	4.6%
COGS	[BRL MM]	(330,064)	(474,909)	(261,555)	(552,298)	(657,839)	(800,078)	(958,527)	(1,090,288)	(1,217,511)	(1,336,139)	(1,443,710)	(1,536,894)	(1,615,213)	(1,685,364)
growth YoY	[%]	-11.7%	43.9%	-	16.3%	19.1%	21.6%	19.8%	13.7%	11.7%	9.7%	8.1%	6.5%	5.1%	4.3%
% of Net Revenue	[%]	-31.5%	-32.4%	-32.4%	-32.3%	-31.9%	-30.9%	-30.3%	-29.9%	-29.5%	-29.1%	-28.8%	-28.6%	-28.5%	-28.4%
Gross Profit	[BRL MM]	717,483	991,478	545,259	1,155,739	1,407,324	1,793,353	2,209,226	2,560,796	2,910,411	3,254,384	3,576,577	3,846,189	4,061,652	4,252,853
growth YoY	[%]	-10.1%	38.2%	-	16.6%	21.8%	27.4%	23.2%	15.9%	13.7%	11.8%	9.9%	7.5%	5.6%	4.7%
Gross Margin	[%]	68.5%	67.6%	67.6%	67.7%	68.1%	69.1%	69.7%	70.1%	70.5%	70.9%	71.2%	71.4%	71.5%	71.6%
Sales Expenses	[BRL MM]	(331,679)	(457,374)	(264,338)	(549,103)	(652,510)	(815,346)	(982,542)	(1,123,299)	(1,256,954)	(1,388,706)	(1,511,888)	(1,614,391)	(1,695,209)	(1,767,916)
growth YoY	[%]	-7.9%	37.9%	-	20.1%	18.8%	25.0%	20.5%	14.3%	11.9%	10.5%	8.9%	6.8%	5.0%	4.3%
% of Net Revenue	[%]	-31.7%	-31.2%	-32.8%	-32.1%	-31.6%	-31.4%	-31.0%	-30.8%	-30.5%	-30.3%	-30.1%	-30.0%	-29.9%	-29.8%
G&A Expenses	[BRL MM]	(131,544)	(161,246)	(91,745)	(193,365)	(213,880)	(259,990)	(309,987)	(352,290)	(394,003)	(434,566)	(472,402)	(504,670)	(531,106)	(554,801)
growth YoY	[%]	-4.7%	22.6%	-	19.9%	10.6%	21.6%	19.2%	13.6%	11.8%	10.3%	8.7%	6.8%	5.2%	4.5%
% of Net Revenue	[%]	-12.6%	-11.0%	-11.4%	-11.3%	-10.4%	-10.0%	-9.8%	-9.6%	-9.5%	-9.5%	-9.4%	-9.4%	-9.4%	-9.3%
D&A Expenses	[BRL MM]	(55,749)	(68,598)	(49,654)	(104,290)	(129,039)	(172,985)	(210,736)	(242,757)	(271,770)	(301,850)	(332,871)	(361,318)	(388,056)	(417,511)
growth YoY	[%]	22.5%	23.0%	-	52.0%	23.7%	34.1%	21.8%	15.2%	12.0%	11.1%	10.3%	8.5%	7.4%	7.6%
% of Net Revenue	[%]	-5.3%	-4.7%	-6.2%	-6.1%	-6.2%	-6.7%	-6.7%	-6.6%	-6.6%	-6.6%	-6.6%	-6.7%	-6.8%	-7.0%
Other Expenses	[BRL MM]	(6,567)	(9,338)	(6,536)	(10,895)	(8,541)	(10,726)	(12,996)	(14,927)	(16,871)	(18,756)	(20,502)	(21,952)	(23,155)	(24,266)
growth YoY	[%]	-93.9%	-242.2%	-	16.7%	-21.6%	25.6%	21.2%	14.9%	13.0%	11.2%	9.3%	7.1%	5.5%	4.8%
% of Net Revenue	[%]	0.6%	-0.6%	-0.8%	-0.6%	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%
EBIT	[BRL MM]	205,079	294,686	132,987	298,086	403,353	534,305	692,965	827,522	970,812	1,110,506	1,238,914	1,343,859	1,424,127	1,488,360
growth YoY	[%]	-43.3%	43.7%	0.0%	1.2%	35.3%	32.5%	29.7%	19.4%	17.3%	14.4%	11.6%	8.5%	6.0%	4.5%
EBIT Margin	[%]	19.6%	20.1%	16.5%	17.5%	19.5%	20.6%	21.9%	22.7%	23.5%	24.2%	24.7%	25.0%	25.1%	25.1%
Financial Result	[BRL MM]	(41,542)	(31,509)	(20,246)	(56,359)	(68,883)	(89,922)	(114,342)	(131,917)	(139,959)	(144,329)	(149,065)	(150,640)	(151,662)	(153,072)
growth YoY	[%]	1588.2%	-24.2%	-	78.9%	22.2%	30.5%	27.2%	15.4%	6.1%	3.1%	3.3%	1.1%	0.7%	0.9%
% of Net Revenue	[%]	-4.0%	-2.1%	-2.5%	-3.3%	-3.3%	-3.5%	-3.6%	-3.6%	-3.4%	-3.1%	-3.0%	-2.8%	-2.7%	-2.6%
Financial Revenue	[BRL MM]	20,294	35,547	23,218	40,490	31,479	31,479	31,479	31,479	31,479	31,479	31,479	31,479	31,479	31,479
Financial Expenses	[BRL MM]	(57,561)	(62,781)	(42,001)	(92,723)	(97,224)	(118,263)	(142,682)	(160,257)	(168,299)	(172,670)	(177,405)	(178,980)	(180,003)	(181,413)
Exchange rate variation	[BRL MM]	(4,274)	(4,275)	(1,462)	(4,126)	(3,138)	(3,138)	(3,138)	(3,138)	(3,138)	(3,138)	(3,138)	(3,138)	(3,138)	(3,138)
EBT	[BRL MM]	163,537	263,177	112,741	241,728	334,470	444,383	578,623	695,606	830,854	966,177	1,089,850	1,193,219	1,272,465	1,335,288
growth YoY	[%]	-54.5%	60.9%	-	-8.2%	38.4%	32.9%	30.2%	20.2%	19.4%	16.3%	12.8%	9.5%	6.6%	4.9%
EBT Margin	[%]	15.6%	17.9%	14.0%	14.2%	16.2%	17.1%	18.3%	19.1%	20.1%	21.0%	21.7%	22.2%	22.4%	22.5%
Income Taxes	[BRL MM]	(16,865)	35,313	22,233	42,154	6,756	5,392	2,036	(1,297)	(7,103)	(13,259)	(18,718)	(23,196)	(26,255)	(28,002)
Tax Rate	[%]	-10.3%	13.4%	19.7%	17.4%	2.0%	1.2%	0.4%	-0.2%	-0.9%	-1.4%	-1.7%	-1.9%	-2.1%	-2.1%
Net Income	[BRL MM]	146,672	298,490	134,974	283,882	341,226	449,774	580,659	694,309	823,750	952,918	1,071,131	1,170,023	1,246,210	1,307,285
growth YoY	[%]	-53.9%	103.5%	-	-4.9%	20.2%	31.8%	29.1%	19.6%	18.6%	15.7%	12.4%	9.2%	6.5%	4.9%
Net Margin	[%]	14.0%	20.4%	16.7%	16.6%	16.5%	17.3%	18.3%	19.0%	20.0%	20.8%	21.3%	21.7%	22.0%	22.0%

Appendix B – Balance Sheet

Balance Sheet	[Unit]	2020	2021	1H22	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
CURRENT ASSETS	[BRL MM]	1,428,554	1,583,220	1,471,843	1,586,203	1,972,313	2,494,305	3,169,501	3,697,889	4,007,126	4,203,170	4,547,766	4,939,151	5,391,119	5,898,580
Cash and cash equivalents	[BRL MM]	477,319	325,588	164,942	194,023	336,321	512,224	807,161	1,035,370	1,055,850	981,273	1,082,300	1,272,554	1,566,322	1,937,896
Trade receivables	[BRL MM]	410,263	531,777	491,508	636,428	769,496	966,332	1,180,330	1,360,423	1,538,096	1,710,465	1,870,598	2,005,779	2,115,244	2,212,626
Inventories	[BRL MM]	365,184	527,139	646,091	579,529	690,273	839,525	1,005,787	1,125,873	1,236,956	1,335,210	1,418,644	1,484,595	1,533,329	1,571,834
Other Assets	[BRL MM]	175,788	198,716	169,302	176,223	176,223	176,223	176,223	176,223	176,223	176,223	176,223	176,223	176,223	176,223
NONCURRENT ASSETS	[BRL MM]	712,142	980,649	1,081,613	1,235,278	1,485,200	1,691,218	1,845,015	1,959,584	2,064,864	2,164,279	2,241,246	2,280,274	2,312,176	2,345,034
Right to Use	[BRL MM]	253,197	346,881	393,206	447,584	575,191	682,438	766,966	839,132	907,303	973,273	1,028,129	1,063,378	1,095,279	1,128,137
Property, plant and equipment	[BRL MM]	87,710	134,107	157,218	223,197	345,512	444,284	513,552	555,955	593,065	626,510	648,620	652,400	652,400	652,400
Other Assets	[BRL MM]	371,235	499,661	531,189	564,497	564,497	564,497	564,497	564,497	564,497	564,497	564,497	564,497	564,497	564,497
CURRENT LIABILITIES	[BRL MM]	589,043	674,296	542,927	533,288	650,354	794,438	944,156	1,006,187	992,154	957,034	965,264	963,048	968,788	983,701
Suppliers	[BRL MM]	53,198	157,556	167,524	108,696	129,467	157,460	188,644	214,576	239,614	262,961	284,131	302,471	317,884	331,690
Borrowings and financing	[BRL MM]	277,821	127,176	114,007	162,066	236,174	330,513	428,172	442,898	380,808	297,205	257,849	210,514	171,465	139,659
Leasing liabilities	[BRL MM]	39,955	59,920	60,842	60,726	82,914	104,664	125,539	146,912	169,932	195,069	221,484	248,263	277,639	310,551
Other Liabilities	[BRL MM]	218,069	329,644	200,554	201,800	201,800	201,800	201,800	201,800	201,800	201,800	201,800	201,800	201,800	201,800
NONCURRENT LIABILITIES	[BRL MM]	380,178	496,842	491,689	609,591	839,011	1,085,606	1,329,387	1,493,728	1,592,777	1,685,127	1,830,677	1,970,800	2,137,377	2,335,962
Borrowings and financing	[BRL MM]	112,500	164,037	118,270	162,066	236,174	330,513	428,172	442,898	380,808	297,205	257,849	210,514	171,465	139,659
Leasing liabilities	[BRL MM]	235,273	310,148	346,375	425,083	580,395	732,651	878,773	1,028,387	1,189,527	1,365,480	1,550,386	1,737,844	1,943,470	2,173,860
Other Liabilities	[BRL MM]	32,405	22,657	27,043	22,442	22,442	22,442	22,442	22,442	22,442	22,442	22,442	22,442	22,442	22,442
EQUITY	[BRL MM]	1,171,476	1,392,731	1,518,842	1,678,601	1,968,148	2,305,479	2,740,973	3,157,558	3,487,059	3,725,288	3,993,071	4,285,577	4,597,129	4,923,950
Earnings reserves	[BRL MM]	0	0	134,974	297,333	586,879	924,210	1,359,704	1,776,290	2,105,790	2,344,019	2,611,802	2,904,308	3,215,860	3,542,682
Others	[BRL MM]	1,171,476	1,392,731	1,383,868	1,381,269	1,381,269	1,381,269	1,381,269	1,381,269	1,381,269	1,381,269	1,381,269	1,381,269	1,381,269	1,381,269

Appendix C – EBITDA Reconciliation (exc. IFRS-16) & Tax Reserves

EBITDA Reconciliation	[Unit]	2020	2021	1H22	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
EBIT	[BRL MM]	205,079	294,686	132,987	298,086	403,353	534,305	692,965	827,522	970,812	1,110,506	1,238,914	1,343,859	1,424,127	1,488,360
D&A expenses	[BRL MM]	58,273	71,830	52,119	108,315	129,039	172,985	210,736	242,757	271,770	301,850	332,871	361,318	388,056	417,511
EBITDA	[BRL MM]	263,351	366,516	185,105	406,401	532,392	707,290	903,701	1,070,279	1,242,583	1,412,356	1,571,785	1,705,177	1,812,182	1,905,871
IFRS-16 Impact	[BRL MM]	47,032	72,647	41,817	95,649	126,027	192,999	193,313	222,809	251,908	280,138	306,365	328,505	346,433	349,795
Non Recurring Events	[BRL MM]	0	7,520	8,081	8,081	0	0	0	0	0	0	0	0	0	0
Adjusted EBITDA	[BRL MM]	216,319	286,349	135,208	302,671	406,365	514,291	710,388	847,471	990,674	1,132,217	1,265,420	1,376,672	1,465,750	1,556,075
Adjusted EBITDA Margin	[%]	20.7%	19.5%	16.8%	17.7%	19.7%	19.8%	22.4%	23.2%	24.0%	24.7%	25.2%	25.6%	25.8%	26.2%

Income Taxes & Tax Reserves Addition	2021	1H22	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
EBT	263,177	112,741	241,728	334,470	444,383	578,623	695,606	830,854	966,177	1,089,850	1,193,219	1,272,465	1,335,288
Tax rate	34%	34%	34.0%	34.0%	34.0%	34.0%	34.0%	34.0%	34.0%	34.0%	34.0%	34.0%	34.0%
IR and CSLL	(89,480)	(38,332)	(82,187)	(113,720)	(151,090)	(196,732)	(236,506)	(282,490)	(328,500)	(370,549)	(405,694)	(432,638)	(453,998)
Tax Credit Selic Unconstitutionality	18,996	0	0	0	0	0	0	0	0	0	0	0	0
Others	16,437	(2,799)	-1,118	4,359	5,792	7,541	9,066	10,829	12,593	14,204	15,552	16,585	17,403
% EBT	6%	-2%	-0.5%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%
Fiscal Incentive - Exploration Profits	44,662	32,236	58,033	66,894	88,877	115,725	139,121	166,171	193,235	217,970	238,644	254,493	267,058
% EBT	17%	29%	24.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%
Fiscal Incentives - ICMS (base 34%)	44,698	31,128	50,897	49,222	61,813	75,502	87,022	98,387	109,413	119,656	128,303	135,306	141,535
% Total ICMS	64%	53%	51.0%	51.0%	51.0%	51.0%	51.0%	51.0%	51.0%	51.0%	51.0%	51.0%	51.0%
Total Paid	35,313	22,233	108,930	116,116	150,690	191,227	226,143	264,558	302,648	337,626	366,947	389,799	408,592

Appendix D – Cash Flow Statement

Cash Flow Statement	[Unit]	2H22E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
CFO	[BRL MM]	34,801	180,660	216,967	334,279	534,521	682,488	835,313	984,611	1,126,103	1,242,550	1,324,331
Net Income	[BRL MM]	148,909	341,226	449,774	580,659	694,309	823,750	952,918	1,071,131	1,170,023	1,246,210	1,307,285
(+) D&A	[BRL MM]	29,719	62,475	85,288	102,695	114,459	122,457	129,670	135,877	138,872	139,126	139,126
(-/+) Δ Working Capital	[BRL MM]	(143,827)	(223,041)	(318,095)	(349,076)	(274,247)	(263,719)	(247,275)	(222,398)	(182,792)	(142,786)	(122,081)
CFI	[BRL MM]	(148,284)	(312,396)	(291,307)	(256,492)	(229,029)	(227,736)	(229,085)	(212,845)	(177,900)	(171,028)	(171,985)
(-) Maintaince CapEx	[BRL MM]	(29,719)	(62,475)	(85,288)	(102,695)	(114,459)	(122,457)	(129,670)	(135,877)	(138,872)	(139,126)	(139,126)
(-) Expansion CapEx	[BRL MM]	(64,188)	(122,314)	(98,773)	(69,268)	(42,404)	(37,109)	(33,445)	(22,111)	(3,779)	0	0
(-) Rights to Use	[BRL MM]	(54,378)	(127,607)	(107,246)	(84,529)	(72,166)	(68,171)	(65,970)	(54,857)	(35,249)	(31,901)	(32,858)
CFF	[BRL MM]	118,576	274,035	250,242	217,150	(77,284)	(434,272)	(680,805)	(670,739)	(757,950)	(777,754)	(780,772)
(+/-) Δ Borrowings	[BRL MM]	91,856	148,215	188,679	195,318	29,452	(124,181)	(167,206)	(78,711)	(94,670)	(78,098)	(63,611)
(+/-) Change in Leasing Liabilities	[BRL MM]	33,921	177,500	174,006	166,997	170,988	184,159	201,090	211,321	214,237	235,001	263,303
(-) Dividends	[BRL MM]	0	(51,679)	(112,444)	(145,165)	(277,724)	(494,250)	(714,688)	(803,349)	(877,517)	(934,657)	(980,464)
Cash BOP	[BRL MM]	164,942	194,023	336,321	512,224	807,161	1,035,370	1,055,850	981,273	1,082,300	1,272,554	1,566,322
Change in Cash	[BRL MM]	5,093	142,299	175,902	294,937	228,209	20,480	(74,577)	101,027	190,253	293,769	371,574
Cash EOP	[BRL MM]	170,035	336,321	512,224	807,161	1,035,370	1,055,850	981,273	1,082,300	1,272,554	1,566,322	1,937,896

Appendix E – FCFF and FCFE

Free Cash Flow to Firm	2H22E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
(=) EBIT	101,953	403,353	534,305	692,965	827,522	970,812	1,110,506	1,238,914	1,343,859	1,424,127	1,488,360
(-) Taxes	2,761	8,233	6,640	2,642	(1,280)	(8,036)	(14,988)	(21,071)	(25,957)	(29,245)	(31,086)
(=) NOPAT	104,714	411,586	540,945	695,607	826,242	962,776	1,095,518	1,217,843	1,317,902	1,394,882	1,457,273
(-) Capex	(87,685)	(378,961)	(379,004)	(364,533)	(357,327)	(377,050)	(401,264)	(409,838)	(400,347)	(419,957)	(450,369)
(+) D&A	24,823	129,039	172,985	210,736	242,757	271,770	301,850	332,871	361,318	388,056	417,511
(-) ΔWC	(148,144)	(223,041)	(318,095)	(349,076)	(274,247)	(263,719)	(247,275)	(222,398)	(182,792)	(142,786)	(122,081)
(=) FCFF	(106,293)	(61,376)	16,832	192,735	437,425	593,778	748,829	918,478	1,096,081	1,220,195	1,302,334
(=) PV of FCFF	(106,293)	(61,376)	29,239	173,048	334,299	398,295	441,216	475,746	499,168	489,440	461,530

FCFF	
Enterprise Value	6,148,789
Net-Debt	242,154
Equity Value	6,390,943
Number of Shares	236,198
Target Price 23E	27.06
Current Price	21.54
Upside/Downside	25.62%

Free Cash Flow to Equity	2H22E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
(=) FCFF	(106,293)	(61,376)	16,832	192,735	437,425	593,778	748,829	918,478	1,096,081	1,220,195	1,302,334
(+/-) Net Borrowings	84,492	148,215	188,679	195,318	29,452	(124,181)	(167,206)	(78,711)	(94,670)	(78,098)	(63,611)
(-) Financial Expenses	(29,157)	(97,224)	(118,263)	(142,682)	(160,257)	(168,299)	(172,670)	(177,405)	(178,980)	(180,003)	(181,413)
(+) Tax Shield	(790)	(2,267)	(1,801)	(877)	(125)	1,037	1,993	2,727	3,209	3,475	3,578
(+/-) Lease Liabilities	37,475	177,500	174,006	166,997	170,988	184,159	201,090	211,321	214,237	235,001	263,303
(=) FCFE	(14,272)	164,848	259,453	411,491	477,483	486,494	612,035	876,409	1,039,877	1,200,570	1,324,191
(=) PV of FCFE	(14,272)	164,848	243,843	334,138	342,281	309,841	347,491	436,488	456,265	465,435	450,347

FCFE	
Equity Value	6,536,124
Number of Shares	236,198
Target Price 23E	27.67
Current Price	21.54
Upside/Downside	28.47%

g
4.00%

Ke
15.01%

Kd
12.58%

WACC
13.92%

Appendix F – Cost of Capital

Kd	Index	Spread	Debt	22E	23E	24E	25E	26E	27E	28E	29E	30E	31E	32E
Banco Safra - Working Capital	CDI	2.20%	7,533	14.57%	14.52%	11.28%	9.60%	9.60%	9.60%	9.60%	9.60%	9.60%	9.60%	9.60%
Banco Safra - Working Capital	CDI	1.60%	22,434	13.97%	13.92%	10.68%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%
Banco Santander - Working Capital	CDI	2.46%	41,534	14.83%	14.78%	11.54%	9.86%	9.86%	9.86%	9.86%	9.86%	9.86%	9.86%	9.86%
Banco Itaú BBA - Working Capital	CDI	2.55%	62,123	14.92%	14.87%	11.63%	9.95%	9.95%	9.95%	9.95%	9.95%	9.95%	9.95%	9.95%
Banco Itaú BBA - Working Capital	CDI	1.55%	-	13.92%	13.87%	10.63%	8.95%	8.95%	8.95%	8.95%	8.95%	8.95%	8.95%	8.95%
Banco Bradesco - Working Capital	CDI	1.47%	50,248	13.84%	13.79%	10.55%	8.87%	8.87%	8.87%	8.87%	8.87%	8.87%	8.87%	8.87%
Banco Santander - Loan 4131	SOFR	2.35%	48,406	5.38%	5.38%	5.38%	5.38%	5.38%	5.38%	5.38%	5.38%	5.38%	5.38%	5.38%
Cost of Debt				12.6%	13.8%	10.7%	9.1%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%
Ke				22E	23E	24E	25E	26E	27E	28E	29E	30E	31E	32E
Risk Free Rate				3.5%	3.55%	3.55%	3.55%	3.55%	3.55%	3.55%	3.55%	3.55%	3.55%	3.55%
Unlevered Beta				1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Debt				324,133	472,347	661,027	856,345	885,797	761,616	594,409	515,698	421,029	342,930	379,978
Equity				1,678,601	1,968,148	2,305,479	2,740,973	3,157,558	3,487,059	3,725,288	3,993,071	4,285,577	4,597,129	4,923,950
Tax Rate				17.4%	2.0%	1.2%	0.4%	-0.2%	-0.9%	-1.4%	-1.7%	-1.9%	-2.1%	-2.1%
Levered Beta				1.23	1.24	1.29	1.31	1.28	1.22	1.16	1.13	1.10	1.07	1.08
Equity Risk Premium				5.5%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%
Country Risk Premium				4.2%	4.21%	4.21%	4.21%	4.21%	4.21%	4.21%	4.21%	4.21%	4.21%	4.21%
Nominal Ke (USA)				14.5%	14.60%	14.85%	14.98%	14.80%	14.45%	14.12%	13.96%	13.79%	13.66%	13.67%
USA CPI				2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%
Real Ke (USA)				11.7%	14.24%	14.48%	14.61%	14.43%	14.09%	13.77%	13.61%	13.44%	13.32%	13.33%
Brazil CPI				3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Cost of Equity				15.01%	14.67%	14.92%	15.05%	14.86%	14.51%	14.18%	14.02%	13.85%	13.72%	13.73%
WACC				22E	23E	24E	25E	26E	27E	28E	29E	30E	31E	32E
WACC				13.92%	13.59%	13.17%	12.89%	12.91%	12.98%	13.05%	13.10%	13.14%	13.18%	13.18%

Appendix G – Working Capital Dynamics

Working Capital	[Unit]	2020	2021	1H22	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
Days in the Period	[#]	360	360	180	360	360	360	360	360	360	360	360	360	360	360
Working Capital	[BRL MM]	722,249	901,360	970,074	1,107,261	1,330,302	1,648,397	1,997,473	2,271,720	2,535,438	2,782,713	3,005,111	3,187,903	3,330,689	3,452,770
Δ Working Capital	[BRL MM]	(15,197)	179,112	68,714	205,901	223,041	318,095	349,076	274,247	263,719	247,275	222,398	182,792	142,786	122,081
Inventories	[BRL MM]	365,184	527,139	646,091	579,529	690,273	839,525	1,005,787	1,125,873	1,236,956	1,335,210	1,418,644	1,484,595	1,533,329	1,571,834
Days of Inventories	[#]	398	400	445	378	378	378	378	372	366	360	354	348	342	336
Trades Receivables	[BRL MM]	410,263	531,777	491,508	636,428	769,496	966,332	1,180,330	1,360,423	1,538,096	1,710,465	1,870,598	2,005,779	2,115,244	2,212,626
Days Receivables	[#]	141	131	110	134	134	134	134	134	134	134	134	134	134	134
Suppliers	[BRL MM]	53,198	157,556	167,524	108,696	129,467	157,460	188,644	214,576	239,614	262,961	284,131	302,471	317,884	331,690
Days Payables	[#]	58	119	115	71	71	71	71	71	71	71	71	71	71	71
Cash Conversion Cycle	[#]	481	411	439	441	441	441	441	435	429	423	417	411	405	399

Appendix H – Store Openings

Store Opening	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
Total Openings Vivara	12	28	23	16	12	0	0	0	0	0	0
Vivara's Openings Cluster A	0	0	0	0	0	0	0	0	0	0	0
Vivara's Openings Cluster B	5	12	7	0	0	0	0	0	0	0	0
Vivara's Openings Cluster C	7	16	16	16	12	0	0	0	0	0	0
Total Openings Life	29	53	42	31	23	32	28	18	3	0	0
Life Cluster AA	1	0	0	0	0	0	0	0	0	0	0
Life Cluster A	6	6	0	0	0	0	0	0	0	0	0
Life Cluster B	16	39	34	20	0	0	0	0	0	0	0
Life Cluster C	6	8	8	11	23	32	28	18	3	0	0
Total Stores Opened	41	81	65	47	35	32	28	18	3	0	0

Appendix I – Revenue Build-Up

Average Revenue per Vivara Store	2021	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
Vivara Stores Weighted Average Revenue	6,146	7,847	7,433	7,793	8,164	8,593	9,137	9,706	10,301	10,923	11,578	12,273
Revenue Cluster AA	6700	8,833	8,363	8,884	9,438	10,026	10,647	11,300	11,987	12,709	13,472	14,280
Revenue Cluster A	10700	12,500	12,622	13,420	14,269	15,172	16,123	17,121	18,167	19,262	20,417	21,642
Revenue Cluster B	6500	8,569	8,129	8,646	9,197	9,782	10,399	11,046	11,722	12,429	13,175	13,966
Revenue Cluster C	4100	5,405	5,134	5,466	5,820	6,196	6,592	7,006	7,437	7,886	8,359	8,861
Life Store Average Revenue		5,500	5,896	6,321	6,776	7,263	7,772	8,292	8,823	9,360	9,922	10,517
Life Growth		7.2%	7.0%	7.0%	7.0%	7.2%	6.9%	6.6%	6.3%	6.0%	6.0%	6.0%
Vivara Growth		6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
Revenue Build-up (Vivara Stores)	2021	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
Current Vivara's Stores in Maturation Process												
1Q		7	7	4	4	0	0	0	0	0	0	0
2Q		5	7	5	4	4	0	0	0	0	0	0
3Q		1	7	7	4	4	0	0	0	0	0	0
4Q		2	7	7	4	4	0	0	0	0	0	0
5Q		2	7	7	4	4	0	0	0	0	0	0
6Q		6	5	7	5	4	4	0	0	0	0	0
7Q		13	1	7	7	4	4	0	0	0	0	0
8Q		0	2	7	7	4	4	0	0	0	0	0
9Q		2	2	7	7	4	4	0	0	0	0	0
Mature		206	227	237	265	291	307	323	323	323	323	323
Vivara's Stores in Maturation Net of Return		1,621,878	1,825,035	2,099,688	2,384,402	2,656,007	2,911,295	3,128,906	3,323,337	3,523,871	3,735,304	3,959,422
Revenue Build-up (Life Stores)	2021	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
Life's Stores in Maturation Process - Base scenario												
1Q		18	14	14	5	5	5	5	0	0	0	0
2Q		19	14	14	6	5	5	5	0	0	0	0
3Q		8	14	14	14	5	5	5	2	0	0	0
4Q		2	18	14	14	5	5	5	5	0	0	0
5Q		14	18	14	14	5	5	5	5	0	0	0
6Q		5	19	14	14	6	5	5	5	0	0	0
7Q		1	8	14	14	14	5	5	5	2	0	0
Mature		13	35	98	154	210	240	260	280	300	302	302
Life's Stores Net of Return		144,052	494,073	830,281	1,158,518	1,452,602	1,773,085	2,133,370	2,496,375	2,783,189	2,991,884	3,176,248

Appendix J – Revenue Build-Up II

Life revenue cannibalized in Vivara Stores	2021	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
% Cannibalized Life Revenue in Cluster AA		1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%
% Cannibalized Life Revenue in Cluster A		4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%
% Cannibalized Life Revenue in Cluster B		7.2%	7.2%	7.2%	7.2%	7.2%	7.2%	7.2%	7.2%	7.2%	7.2%	7.2%
% Cannibalized Life Revenue in Cluster C		12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%
Life Revenue Canibalized in Cluster AA		14	34	42	54	68	85	108	136	172	217	274
Life Revenue Canibalized in Cluster A		304	2,064	2,709	3,420	4,318	5,451	6,882	8,688	10,969	13,848	17,482
Life Revenue Canibalized in Cluster B		1,081	9,595	22,677	38,113	50,763	64,087	80,908	102,144	128,955	162,802	205,534
Life Revenue Canibalized in Cluster C		677	3,578	7,760	14,439	30,155	62,457	109,149	167,410	224,448	283,834	358,334
Life Revenue Canibalized - Total		2,076	15,270	33,188	56,026	85,303	132,079	197,046	278,378	364,543	460,701	581,624
Revenue Build-up (Kiosks)	2021	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
Number of Kiosks	26	23	23	23	23	23	23	23	23	23	23	23
Revenue	44,716	40,088	42,157	44,686	47,368	50,210	53,222	56,416	59,801	63,389	67,192	71,223
Revenue per Kiosk	1,720	1,743	1,833	1,943	2,059	2,183	2,314	2,453	2,600	2,756	2,921	3,097
Revenue Build-up (E-Commerce)	2021	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
Revenue E-Commerce	306,271	188,706	234,599	299,241	424,111	488,822	552,663	614,598	672,136	720,709	760,041	795,032
YoY growth	-1%	-38%	24%	28%	42%	15%	13%	11%	9%	7%	5%	5%
Revenue Build-up (E-Commerce) as % of B&M Sales	20.3%	21.6%	12.6%	12.8%	14.4%	13.8%	13.6%	13.3%	13.1%	12.9%	12.7%	12.6%
Revenue Build-up (E-Commerce) as % of Total Sales	17%	18%	9%	9%	11%	11%	11%	11%	11%	11%	11%	11%
Consolidated Revenue	2021	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
Gross Revenue	1,842,455	2,133,945	2,580,594	3,240,709	3,958,374	4,562,337	5,158,185	5,736,244	6,273,270	6,726,614	7,093,720	7,420,301

Appendix K – SG&A

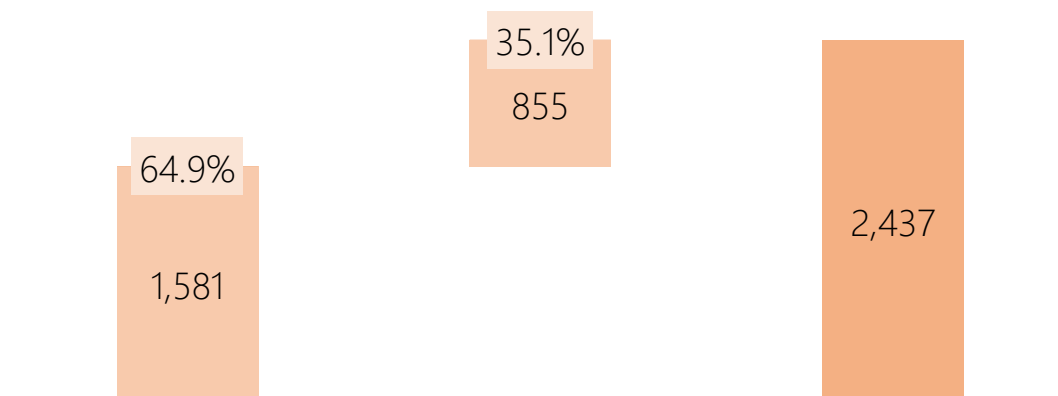
SG&A	2021	1H22	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
SG&A	(624,042)	(356,084)	(734,664)	(866,390)	(1,075,336)	(1,292,529)	(1,475,590)	(1,650,957)	(1,823,272)	(1,984,290)	(2,235,826)	(2,226,315)	(2,322,717)
% net-revenue	-43%	-44%	-43.9%	-42.0%	-40.8%	-39.6%	-38.6%	-38.0%	-37.6%	-37.3%	-38.9%	-37.2%	-37.1%
Sales Expenses	(462,796)	(264,339)	(541,892)	(652,510)	(815,346)	(982,542)	(1,123,299)	(1,256,954)	(1,388,706)	(1,511,888)	(1,614,391)	(1,695,209)	(1,767,916)
% net revenue	-32%	-33%	-32.3%	-31.8%	-31.7%	-31.3%	-30.7%	-30.3%	-30.1%	-29.9%	-29.9%	-29.8%	-29.8%
Personnel	(224,883)	(127,332)	(262,516)	(309,774)	(389,015)	(475,163)	(547,663)	(619,188)	(688,578)	(753,043)	(807,462)	(851,530)	(890,733)
(%) net revenue	-15%	-16%	-15.4%	-15.0%	-15.0%	-15.0%	-15.0%	-15.0%	-15.0%	-15.0%	-15.0%	-15.0%	-15.0%
Freight	(26,543)	(13,086)	(31,110)	(41,303)	(51,869)	(63,355)	(73,022)	(82,558)	(91,810)	(100,406)	(107,662)	(113,537)	(118,764)
(%) net revenue	-2%	-2%	-1.8%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%
MDR	(33,230)	(19,248)	(37,273)	(41,303)	(51,869)	(63,355)	(73,022)	(82,558)	(91,810)	(100,406)	(107,662)	(113,537)	(118,764)
(%) net revenue	-2%	-2%	-2.2%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%
Marketing expenses	(76,269)	(41,964)	(87,025)	(103,258)	(129,672)	(158,388)	(182,554)	(206,396)	(229,526)	(251,014)	(269,154)	(283,843)	(296,911)
(%) net revenue	-5%	-5%	-5.1%	-5.0%	-5.0%	-5.0%	-5.0%	-5.0%	-5.0%	-5.0%	-5.0%	-5.0%	-5.0%
Rent and other expenses	(101,871)	(62,709)	(123,968)	(156,871)	(192,922)	(222,281)	(247,039)	(266,253)	(286,981)	(307,019)	(322,451)	(332,761)	(342,744)
(%) net revenue	-7%	-8%	-7.8%	-7.8%	-7.7%	-7.3%	-6.7%	-6.3%	-6.1%	-5.9%	-5.9%	-5.8%	-5.8%
Vivara	(90,905)	(55,644)	(110,716)	(127,470)	(144,528)	(157,454)	(169,623)	(176,209)	(181,495)	(186,940)	(236,174)	(198,325)	(204,274)
Sales per Sqm (per quarter)	-1.1	-1.3	(1.2)	(1.3)	(1.3)	(1.4)	(1.5)	(1.5)	(1.6)	(1.6)	(2.1)	(1.8)	(1.8)
Life	(5,063)	(6,669)	(12,577)	(28,796)	(47,768)	(64,182)	(76,751)	(89,359)	(104,780)	(119,353)	(158,548)	(133,666)	(137,676)
Sales per Sqm (per quarter)	-0.6	-1.1	(0.6)	(0.8)	(1.0)	(1.2)	(1.3)	(1.4)	(1.4)	(1.5)	(2.0)	(1.7)	(1.7)
Kiosks	(715)	(318)	(597)	(605)	(627)	(646)	(665)	(685)	(706)	(727)	(919)	(771)	(794)
Sales per Sqm (per quarter)	-1.1	-1.1	(1.0)	(1.1)	(1.1)	(1.1)	(1.2)	(1.2)	(1.3)	(1.3)	(1.7)	(1.4)	(1.4)
G&A Expenses	(161,246)	(91,745)	(192,772)	(213,880)	(259,990)	(309,987)	(352,290)	(394,003)	(434,566)	(472,402)	(621,435)	(531,106)	(554,801)
(%) net revenue	-11%	-11%	-12%	-10%	-9%	-8%	-8%	-8%	-8%	-7%	-9%	-7%	-7%
Personel	(79,297)	(45,586)	(94,051)	(103,258)	(129,672)	(158,388)	(182,554)	(206,396)	(229,526)	(251,014)	(329,040)	(283,843)	(296,911)
(%) net revenue	-5%	-6%	-5.3%	-5.0%	-5.0%	-5.0%	-5.0%	-5.0%	-5.0%	-5.0%	-6.1%	-5.0%	-5.0%
Services	(51,438)	(33,393)	(61,461)	(71,620)	(89,913)	(109,981)	(126,869)	(143,454)	(159,562)	(174,546)	(233,135)	(197,568)	(206,705)
(%) net revenue	-4%	-4%	-4.1%	-3.4%	-2.7%	-2.2%	-1.9%	-1.8%	-1.6%	-1.6%	-1.9%	-1.5%	-1.5%
Rents	(1,714)	(625)	(1,057)	(1,100)	(1,141)	(1,175)	(1,210)	(1,246)	(1,284)	(1,322)	(1,762)	(1,403)	(1,445)
growth yoy	136%	-64%	-8.9%	4.5%	3.7%	3.5%	3.5%	3.5%	3.5%	3.5%	24.1%	-13.7%	3.5%
Others	(28,797)	(12,141)	(36,203)	(37,902)	(39,265)	(40,443)	(41,657)	(42,906)	(44,194)	(45,519)	(57,498)	(48,291)	(49,740)
(%) net revenue	-2%	-2%	-2.1%	-1.7%	-1.4%	-1.1%	-1.0%	-0.9%	-0.8%	-0.8%	-1.0%	-0.8%	-0.8%

Appendix L – Trading Comp Multiples

November 30, 2022		Market Cap	Net Debt	EV	EV/EBITDA			P/E			PEG			P/B	Revenue CAGR	EBITDA CAGR	EPS Growth	EBITDA Margin	ROE	ROIC
	Country	Local Currency	Local Currency	Local Currency	22E	23E	24E	22E	23E	24E	22E	23E	24E	LTM	21-24E	21-24E	21-24E	22-24E	23E	23E
Brazilian Peers																				
Vivara (Consensus)	Brazil	5,428	488	5,916	13.5	10.3	7.9	15.7	13.3	11.1	1.0	0.9	0.7	3.5	24.6%	26.9%	16.8%	25.0%	20.2%	16.4%
Grupo Soma	Brazil	9,191	965	10,156	13.9	10.6	8.3	23.3	15.9	11.6	1.8	1.2	0.9	1.3	33.6%	54.2%	17.3%	16.7%	7.4%	15.5%
Arezzo	Brazil	11,090	-118	10,972	16.3	13.8	11.1	22.3	19.3	14.8	1.5	1.3	1.0	4.5	23.5%	19.9%	23.1%	17.3%	20.6%	29.4%
Median					15.1	11.5	8.9	22.2	17.1	12.8	1.5	1.0	0.8	3.9	24.0%	25.7%	17.3%	21.2%	20.2%	20.6%
Mean					15.0	11.8	9.2	20.8	16.7	12.9	1.4	1.1	0.8	3.4	25.6%	31.4%	19.1%	21.2%	16.1%	21.5%
Europe Luxury																				
LVMH	France	354,780	25,487	380,267	14.1	13.1	12.2	24.2	22.1	20.3	2.1	1.9	1.7	6.9	12.4%	15.5%	13.0%	34.2%	25.6%	20.1%
Hermes Internacional	France	157,243	-6,528	150,715	29.4	26.5	23.8	49.0	43.8	39.8	3.4	3.0	2.7	15.1	15.9%	18.1%	16.9%	45.0%	27.2%	68.7%
Kering	France	69,144	5,376	74,520	10.0	9.5	8.7	16.8	15.8	14.4	2.0	1.9	1.7	5.0	10.7%	9.7%	13.9%	35.4%	25.4%	20.2%
Richemont	Switzerland	60,044	-310	59,734	10.0	9.5	8.8	18.9	17.8	16.1	0.6	0.6	0.5	3.6	5.1%	11.1%	11.1%	30.5%	18.0%	24.5%
Swatch Group	Switzerland	12,451	-2,386	10,065	6.3	6.1	5.7	15.0	14.2	12.9	2.1	2.0	1.8	1.1	5.3%	6.8%	9.0%	20.6%	6.8%	6.2%
Burberry	Britain	8,079	459	8,538	9.5	9.0	8.4	17.5	16.9	15.8	1.4	1.3	1.2	5.4	7.2%	6.7%	9.8%	29.0%	28.3%	-19.6%
Moncler	Italy	13,343	276	13,619	13.5	12.1	10.9	22.4	21.8	19.5	1.2	1.2	1.1	5.2	15.4%	14.8%	19.2%	39.6%	19.2%	29.8%
Prada	Italy	103,900	-89,106	14,794	11.1	10.0	9.2	28.4	24.7	20.9	1.0	0.8	0.7	4.0	12.1%	13.8%	27.7%	34.2%	15.3%	15.3%
Pandora	Denmark	47,711	8,794	56,505	6.5	6.3	6.0	9.4	8.6	7.8	0.8	0.8	0.7	6.7	6.6%	6.3%	14.8%	33.2%	64.7%	43.4%
Hugo Boss	Germany	3,702	716	4,418	6.4	6.0	5.5	17.7	15.8	13.3	0.8	0.7	0.6	3.4	12.7%	12.0%	24.9%	19.7%	26.6%	26.6%
Ferragamo	Italy	2,799	254	3,053	10.3	11.4	9.5	37.1	56.8	34.8	N/A	N/A	N/A	3.5	9.3%	1.8%	0.7%	21.4%	6.3%	7.2%
Brunello Cucinelli	Italy	3,828	752	4,580	18.3	16.7	15.3	52.0	47.0	43.1	2.26	2.04	1.87	11.3	14.4%	15.7%	21.5%	28.2%	21.5%	9.7%
Tod's	Italy	1,035	583	1,618	8.4	7.2	6.5	63.1	29.1	19.6	0.26	0.12	0.08	1.1	7.8%	15.2%	N/A	19.7%	3.7%	1.2%
Median					10.0	9.5	8.8	22.4	21.8	19.5	1.3	1.3	1.2	5.1	10.7%	12.0%	14.3%	30.5%	21.5%	19.9%
Mean					11.8	11.0	10.0	28.6	25.7	21.4	1.5	1.4	1.2	5.6	10.4%	11.4%	15.2%	30.1%	22.2%	19.5%
Asian Luxury																				
Chow Tai Fook Jewellery	Hong Kong	149,790	11,983	161,773	12.7	10.8	9.5	17.8	14.8	12.6	1.2	1.0	0.8	4.5	13.1%	17.8%	15.0%	11.7%	15.6%	15.6%
Lao Feng Xiang	China	16,894	2,490	19,384	5.6	5.0	4.5	11.7	10.3	9.3	N/A	N/A	N/A	2.2	9.2%	8.9%	6.5%	5.6%	17.6%	17.6%
Luk Fook	Hong Kong	10,415	-1,180	9,235	4.2	3.6	3.2	6.8	5.9	5.1	0.5	0.4	0.4	0.9	12.7%	18.8%	17.7%	17.0%	16.9%	16.9%
Chow Sang Sang	Hong Kong	5,243	3,321	8,564	4.7	4.0	4.2	5.9	5.1	4.2	0.2	0.2	0.1	0.4	7.5%	4.4%	26.2%	8.0%	7.8%	N/A
Median					5.1	4.5	4.4	9.3	8.1	7.2	0.5	0.4	0.4	1.5	11.0%	13.3%	16.4%	9.9%	16.3%	16.9%
Mean					6.8	5.9	5.4	10.6	9.0	7.8	0.6	0.5	0.4	2.0	10.6%	12.5%	16.4%	10.6%	14.5%	16.7%
US Luxury																				
Ralph Lauren Corp	United States	6,443	-289	6,154	6.1	5.7	5.3	14.2	12.3	10.2	2.9	2.5	2.1	2.7	4.0%	2.8%	9.0%	16.3%	25.8%	25.9%
Signet Jewelers	United States	2,914	-52	2,862	3.0	3.3	3.3	5.9	6.5	6.4	N/A	N/A	N/A	1.44	5.2%	-6.7%	1.0%	11.3%	32.9%	25.0%
Median					4.6	4.5	4.3	10.1	9.4	8.3	2.9	2.5	2.1	2.1	4.6%	-1.9%	5.0%	13.8%	29.4%	25.5%
Mean					4.6	4.5	4.3	10.1	9.4	8.3	2.9	2.5	2.1	2.1	4.6%	-1.9%	5.0%	13.8%	29.4%	25.5%
Global Median					10.0	9.5	8.7	18.9	16.7	13.3	1.3	1.0	0.8	3.7	11.0%	13.3%	16.4%	21.2%	19.7%	19.8%
Global Mean					10.8	9.6	8.4	21.8	19.1	15.8	1.4	1.2	1.0	4.2	13.1%	14.7%	15.3%	23.1%	20.2%	19.8%

Appendix M - Tax benefits Projections

Tax benefits brought to present value...



What if exploration profit is not renewed?



Income Taxes & Tax Reserves Addition	2021	1H22	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
Tax Reserves BoP	146,475	322,513	446,549	647,573	851,512	1,113,960	1,446,549	1,846,199	2,317,774	2,858,615	3,461,436	4,112,770	4,802,808
Net Add - ICMS	131,465	91,553	150,018	142,017	179,441	221,707	260,651	299,901	337,304	371,040	397,936	419,695	440,410
Net Add - IRPJ	44,662	32,236	51,006	61,922	83,008	110,882	138,999	171,674	203,536	231,781	253,398	270,344	285,186
Tax Reserves EoP	322,513	446,549	647,573	851,512	1,113,960	1,446,549	1,846,199	2,317,774	2,858,615	3,461,436	4,112,770	4,802,808	5,528,404

Appendix N – Cannibalization sensitized

Cannibalization sensitivity

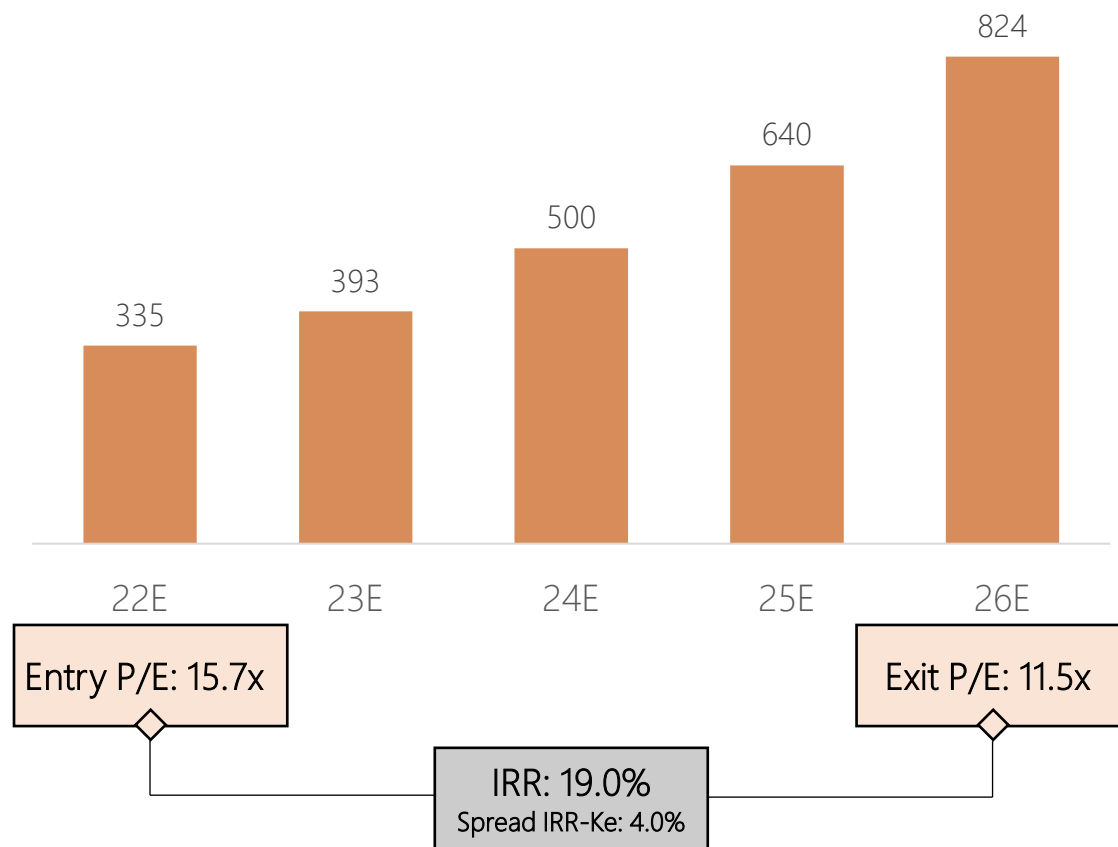
Cannibalization C							
Cannibalization B		0%	20%	40%	60%	80%	100%
	0%	33.0%	28.9%	24.7%	20.4%	16.2%	11.9%
	20%	27.7%	23.5%	19.3%	15.0%	10.8%	6.5%
	40%	22.3%	18.2%	13.9%	9.7%	5.4%	1.1%
	60%	16.9%	12.8%	8.5%	4.2%	0.0%	-5.5%
	80%	11.6%	7.3%	3.1%	-1.2%	-6.3%	-11.7%
	100%	6.2%	1.9%	-2.4%	-7.9%	-13.1%	-14.4%

Appendix O – IRR sensitized

We also analyzed and sensitized an IRR analysis with a 10.5x P/E fwd exit multiple in 2026E

With a 11.5x exit P/E we got a 19.3% IRR for VIVA3...

Vivara's Net income, [BRL mm]



... and got 60% buy recommendation in our sensitivity

P/E FWD 26E and Net Revenue CAGR IRR Sensitivity

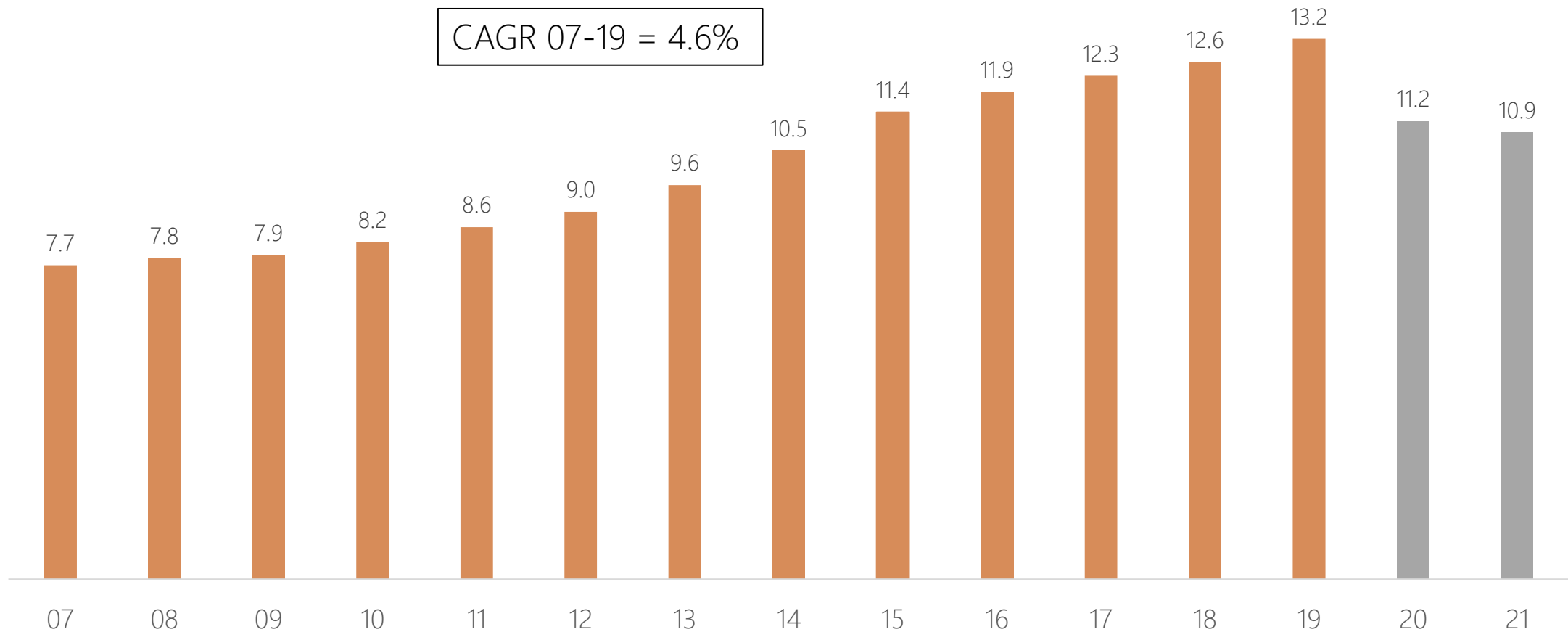
		P/E FWD Exit 2026E								
		7x	8x	9x	10x	11x	12x	13x	14x	15x
Net Revenue CAGR	4%	-13%	-10%	-8%	-5%	-3%	-1%	1%	2%	4%
	8%	-8%	-5%	-2%	0%	2%	5%	7%	8%	10%
	12%	-3%	0%	3%	6%	8%	10%	12%	14%	16%
	16%	3%	6%	9%	11%	14%	16%	18%	21%	23%
	20%	8%	11%	14%	17%	20%	22%	25%	27%	29%
	24%	13%	17%	20%	23%	26%	28%	31%	33%	35%
	28%	19%	23%	26%	29%	32%	35%	37%	40%	42%
	32%	24%	28%	32%	35%	38%	41%	44%	46%	49%
	36%	30%	34%	38%	41%	44%	47%	50%	53%	55%

59% scenarios **above Cost of Equity**

Appendix P – Why is growth 4%?

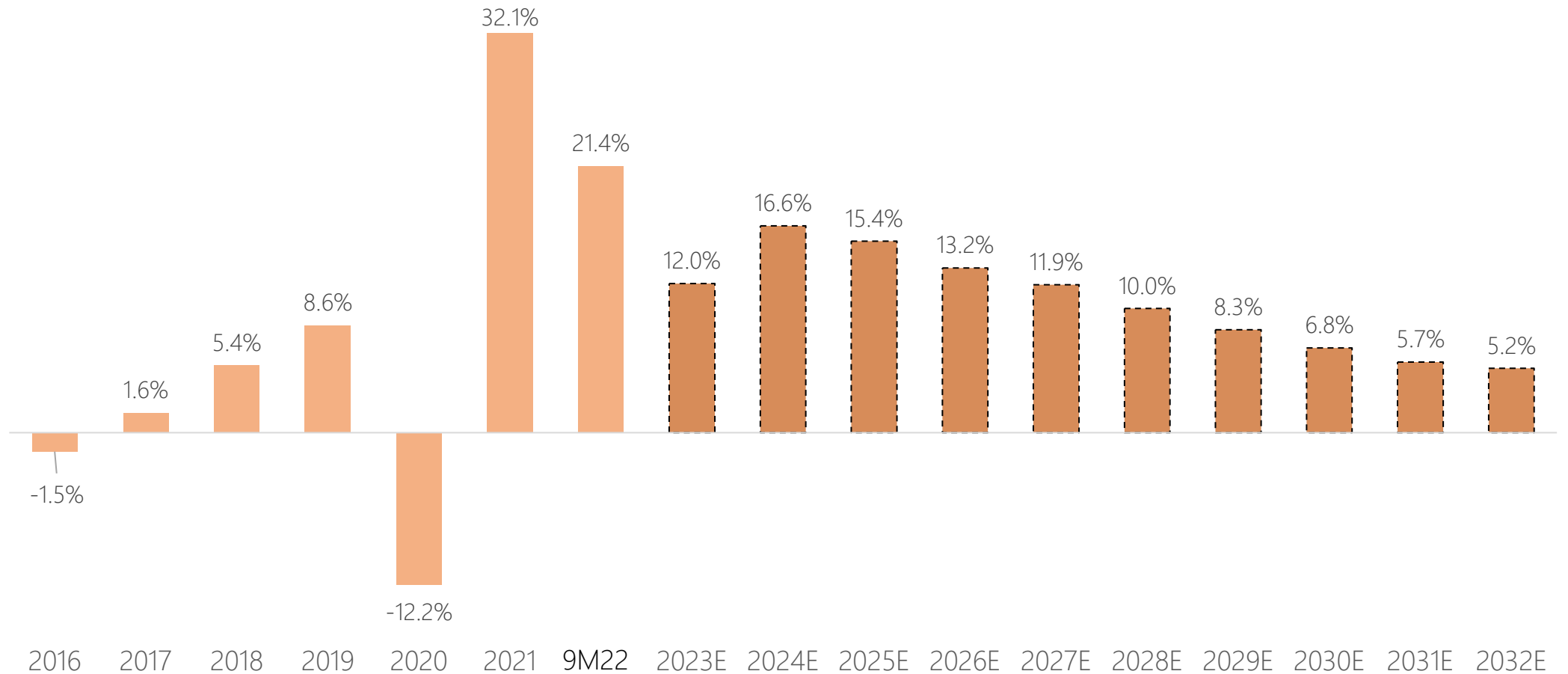
We see Vivara growing accordingly to the industry in perpetuity...

Total Addressable Market



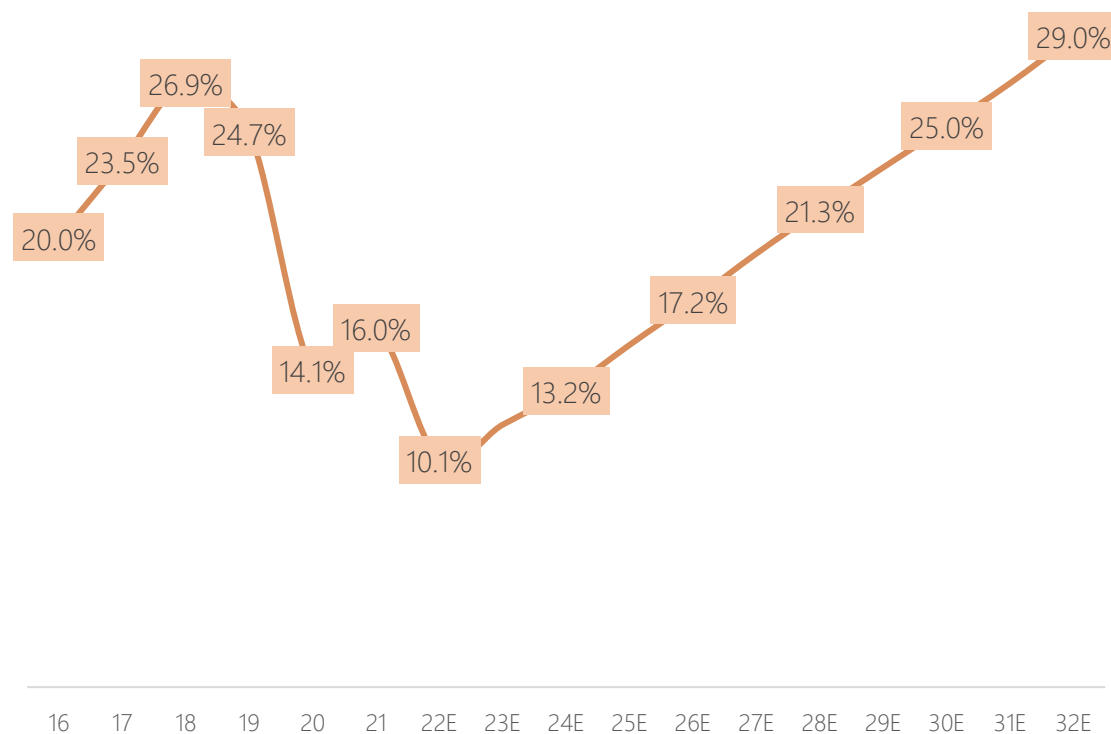
Appendix Q – SSS

Sames Store Sales evolution

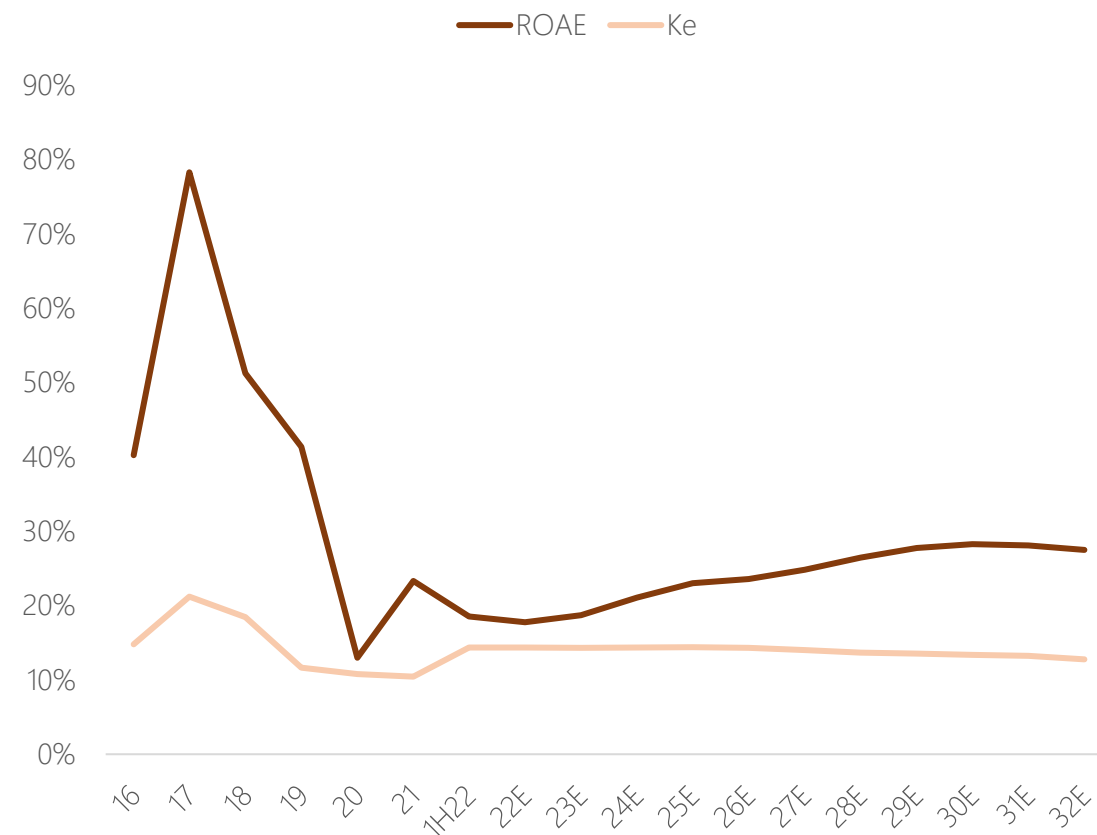


Appendix R - Returns projection

ROIC Projection

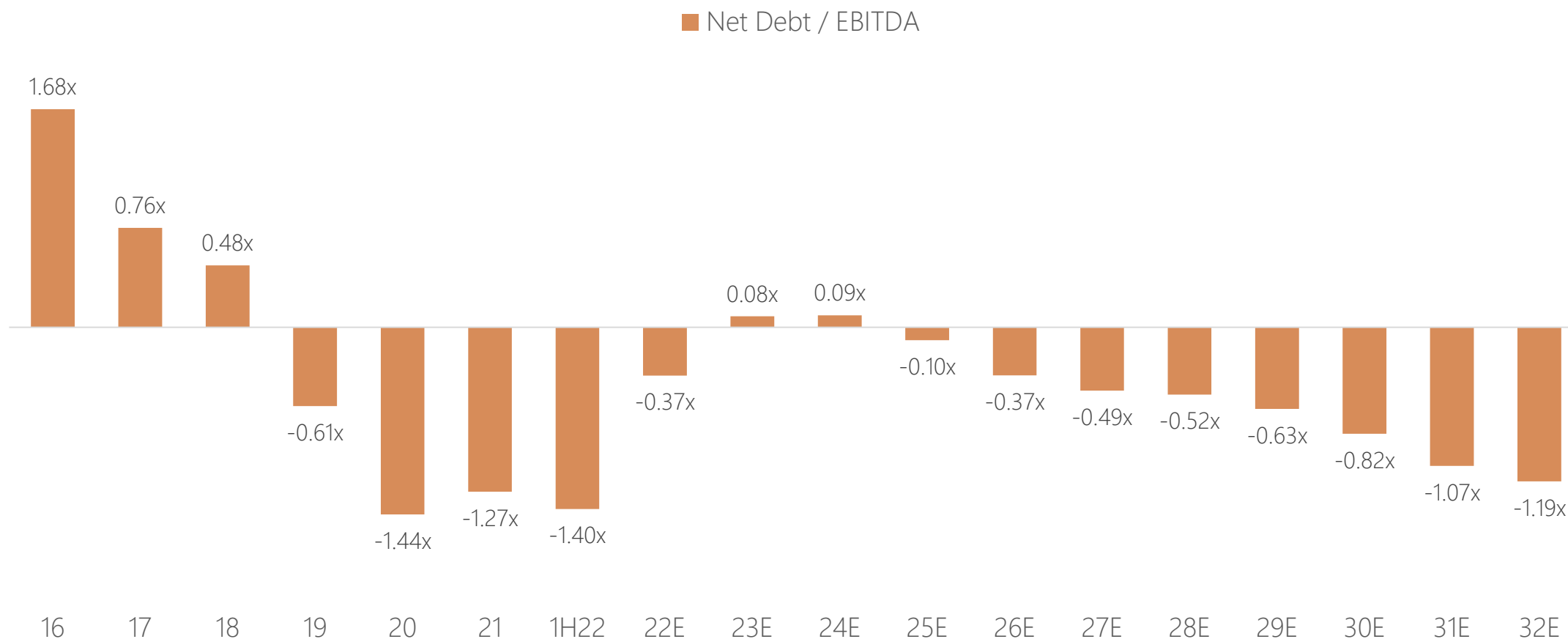


ROE Projection



Appendix S - Leverage projection

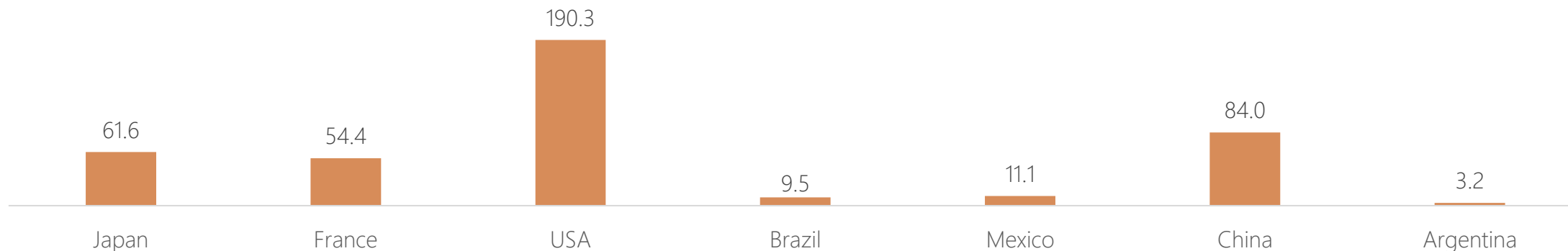
Net Debt (Cash) / EBITDA projection



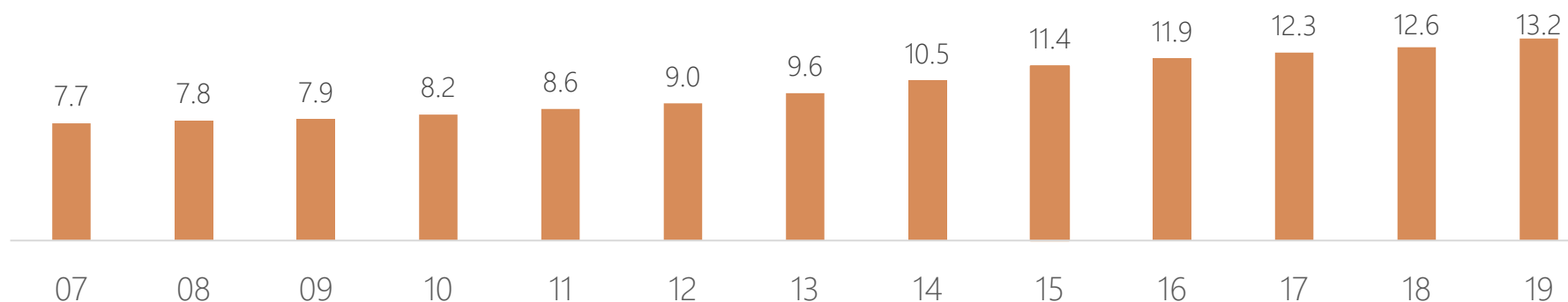
Appendix T – Sector Drivers

Wealthier countries have higher jewelry expenditure per capita; USD and savings are other important drivers...

Jewelry Expenditure per capita [USD]



TAM correlation to USD and Savings/Gross GDP



R^2 (TAM x USD) 07-19

0.9126

R^2 Savings/GDP x TAM

0.9479

Appendix U – Sector Projections (TAM, Vivara’s market share) II

At high rates until 2025, nonetheless, as pandemic effects slow down, we see Brazil’s consumer trust improving after a spike in 2021. Nevertheless, it is impossible to even try to predict the behavior of exchange rates and savings for too long in the future. Therefore, beyond 2025 we set a flatted growth equal to the industry’s CAGR from 2010-2019 of 5.4%. Finally, we can integrate our sector projections with our Vivara valuation, reaching the following results:

Year	TAM	Exchange	Gross savings (% of GDP)
22E	12213	5.15	14%
23E	13458	5.39	12%
24E	14670	5.55	10%
25E	15849	5.63	8%
26E	16959	<div>sector growth</div> <div>5.4%</div>	
27E	18146		
28E	19416		
29E	20775		
30E	22230		
31E	23443		

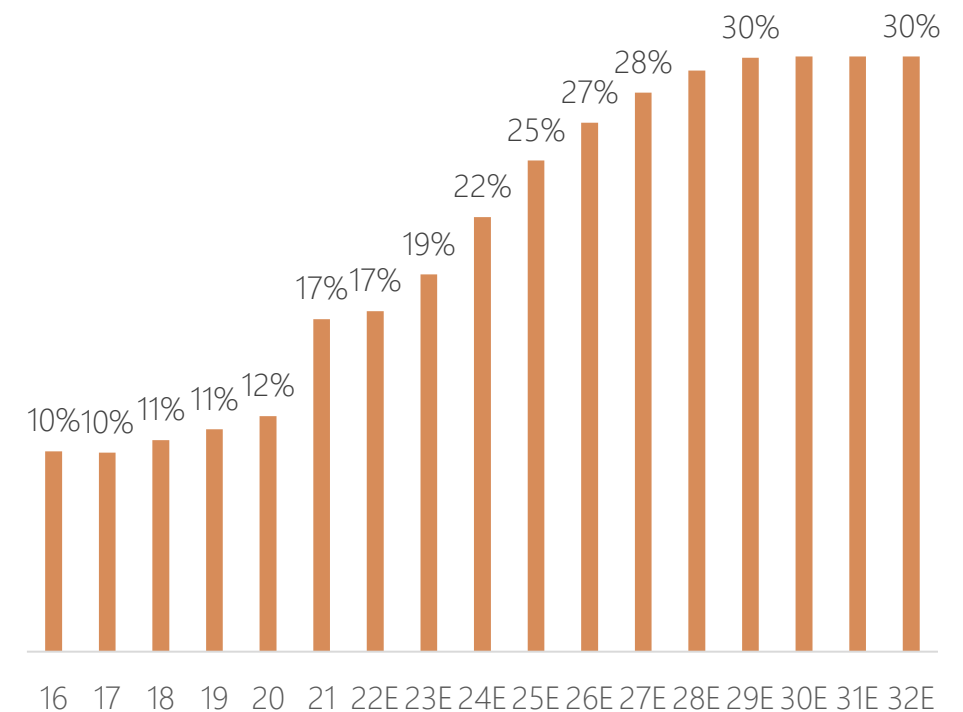
Regression Statistics	
Multiple R	0.945558
R Square	0.894079
Adjusted R Square	0.876426
Observations	15

R^2 (TAM x USD) 07-19
0.9126

R^2 Savings/GDP x TAM
0.9479

Vivara Market Share Projection

Source: Euromonitor, World Bank, Team 2

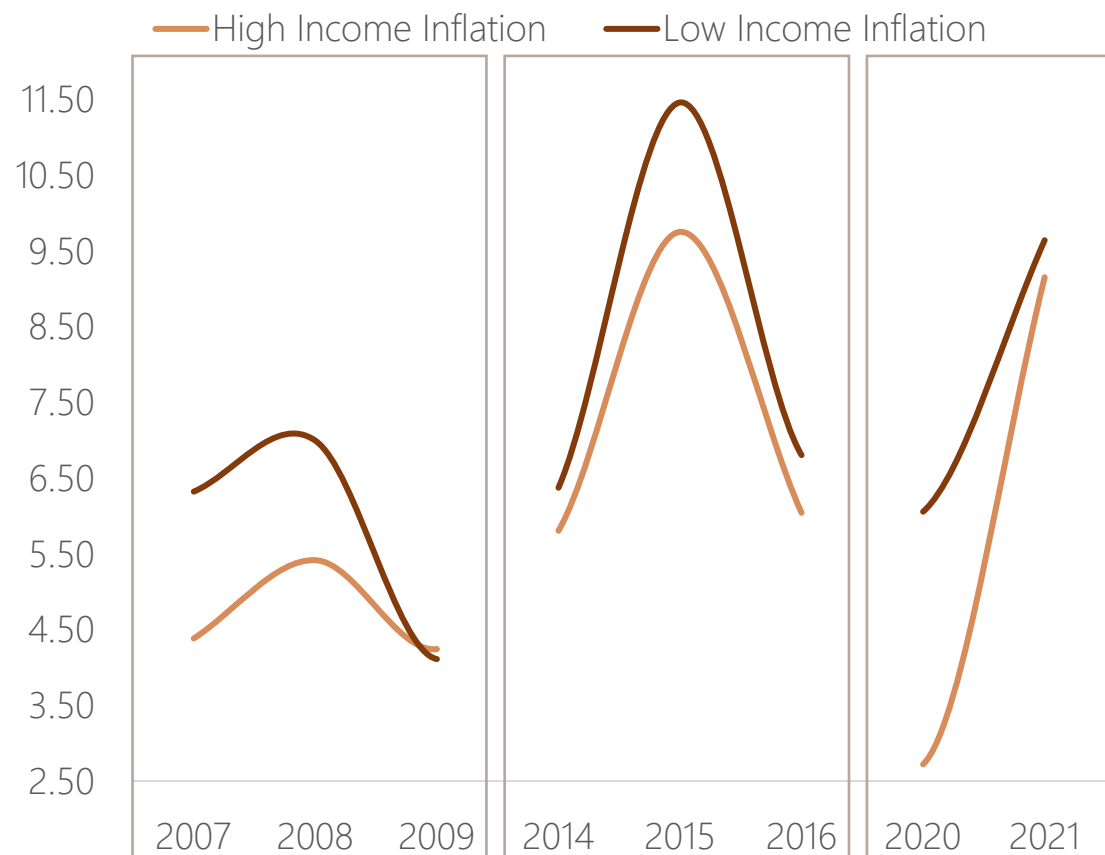


Appendix V - Top notch clients

The industry is inserted in discretionary retail, but unlike other segments, it presents greater resilience

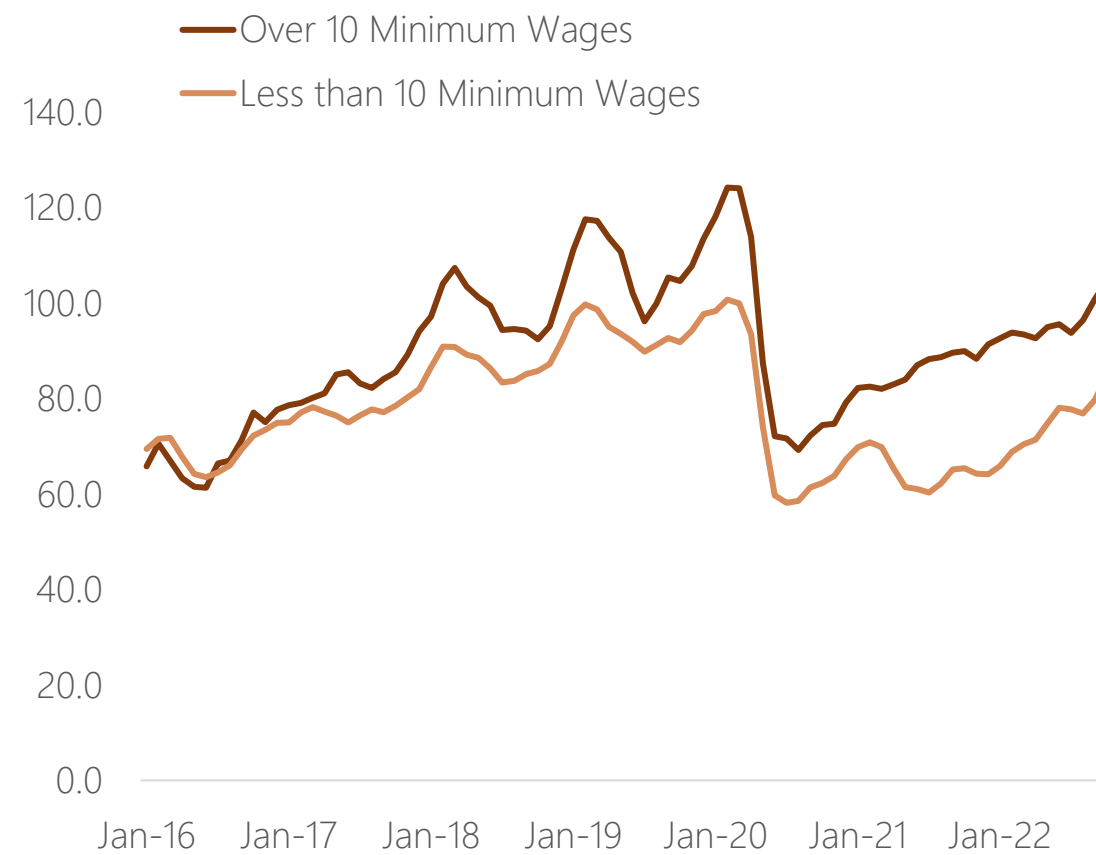
Higher income consumers are less exposed to inflation...

Inflation per income class in crisis periods, [%]



... and have higher consumer intention

Consumer intention index above and below 10 Minimal Wages, [#]

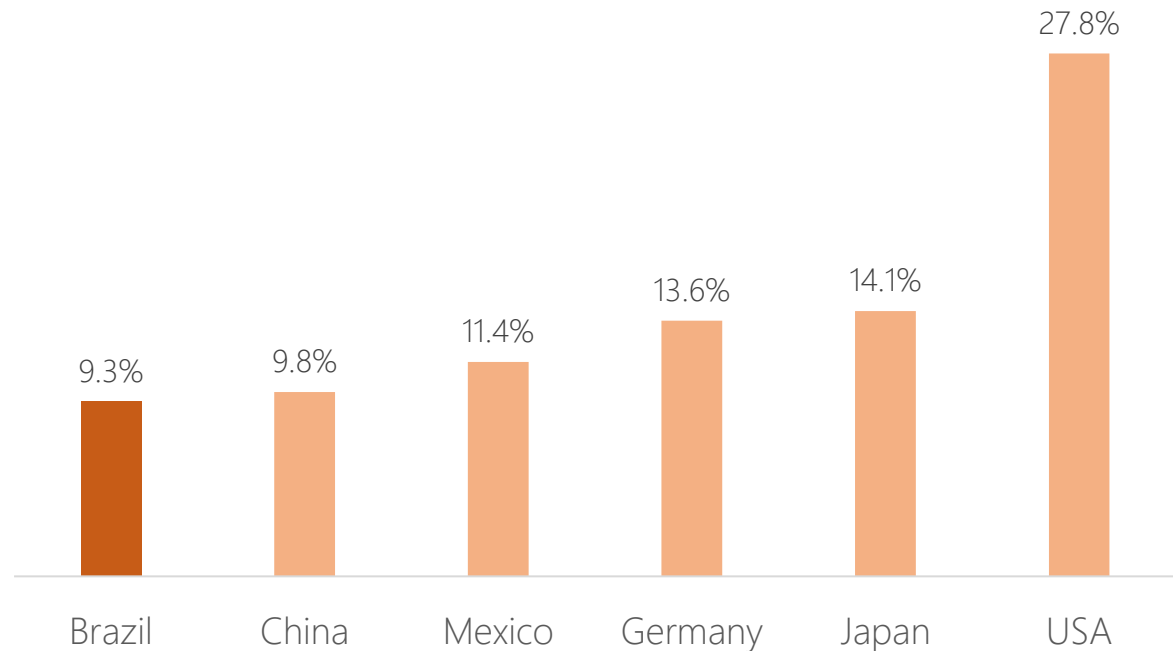


Appendix W – eCommerce in the sector

Brazilian jewelry eCommerce still has a long way to go to match international peers, such as the US. Jewelry retail was taking more time to digitalize than other retail segments since products are extremely refined and expensive, leading to somewhat of customer distrust over unknown websites and the need to inspect and analyze jewels physically. Nonetheless, the pandemic has speeded up this trend, as according to Euromonitor, online sales penetration has drastically increased. This sudden change in the sector dynamics was not a problem to Vivara, as the company was the best positioned in the sector to boost its eCommerce sales due to the brand recognition and much more available capital to improve the website and promote marketing campaigns. Hence, the company is already the leader in physical sales and has gained even more market share in the digital channel.

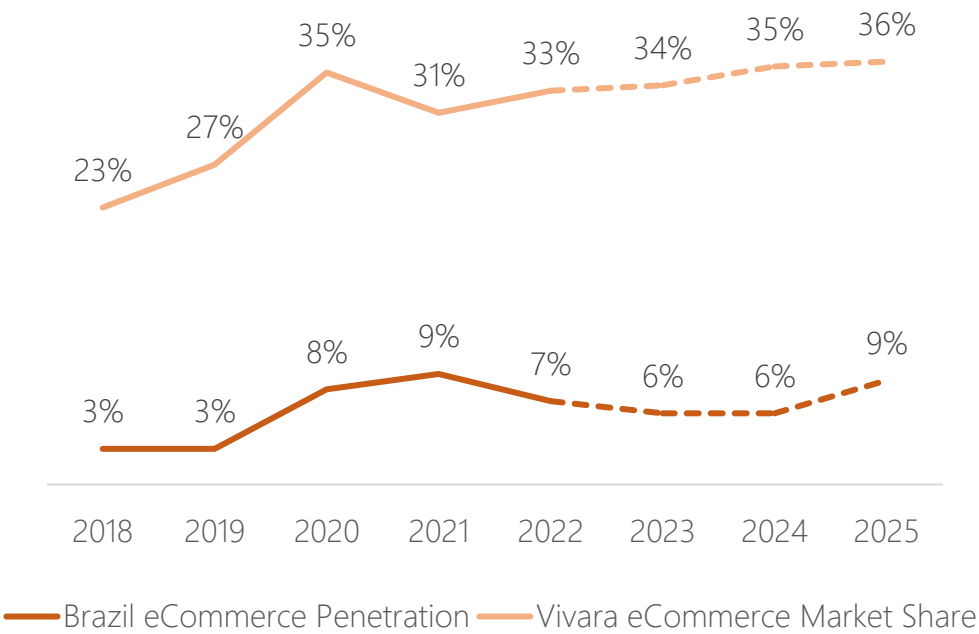
eCommerce penetration in the industry

Source: Euromonitor



Vivara eCommerce market share projection

Source: Euromonitor, Vivara, Team 2



Appendix X – Vivara's eCommerce Analysis

```
navegador.get('https://www.vivara.com.br/joias/brinco?0=OrderByScoreASC')
sleep(4)

last_height = navegador.execute_script("return document.body.scrollHeight")

for contador in range(20):
    navegador.execute_script("window.scrollTo(0, document.body.scrollHeight);")

    sleep(6)

    new_height = navegador.execute_script("return document.body.scrollHeight")

    if new_height == last_height:
        break

    last_height = new_height

site = BeautifulSoup(navegador.page_source, 'html.parser')

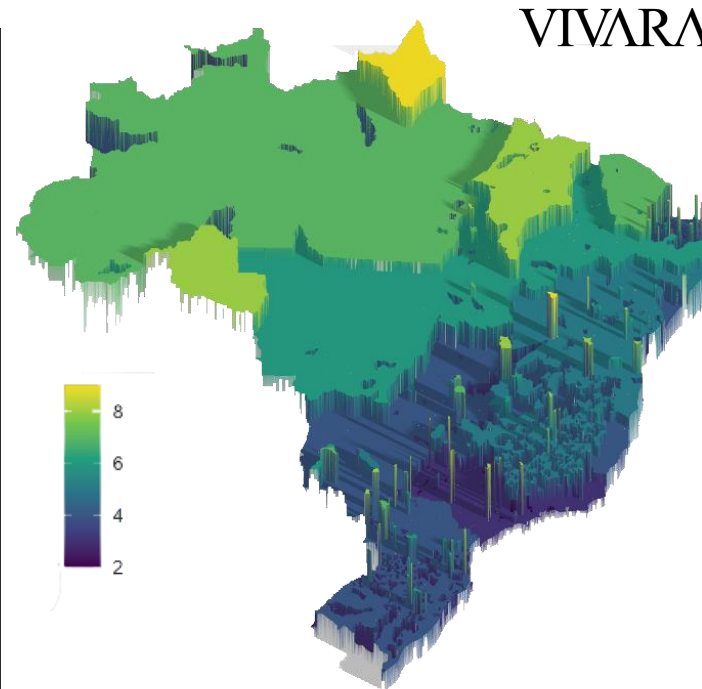
brincos = site.find_all('div', class_='shelf__common--product-info')

for brincos1 in brincos:

    try:
        marca = brincos1.find('div', class_='shelf__common--product-name').get_text().strip()
        preco = brincos1.find('span', class_='shelf__common--price--best-price').get_text().strip()
        if preco == 'sob consulta':
            preco = 0
    except:
        pass

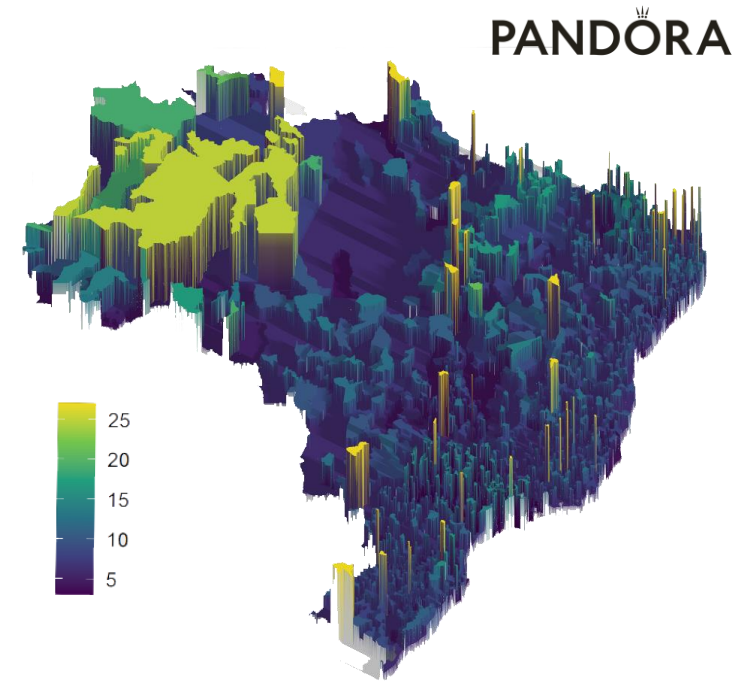
    with open('precos_pedra_hstern.csv', 'a', newline='', encoding='UTF-8') as f:

        linha = marca + ';' + preco + '\n'
        f.write(linha)
```



Delivery Days | Coverage

5.0 days 100%



Delivery Days | Coverage

7.4 days 93%

To prove that Vivara's logistics is superior, we developed an authorial code in Python and R that tests delivery requests for a zip code in every Brazilian city. The code returns us if deliveries are available for the inputted address, as well as the maximum estimated time for the delivery

Appendix Y – Tax Reforms

What if there were a tx reform...

Simplification of Current Tax System						
Steps	Value (R\$)	PIS/COFINS (3.65%)	ICMS (18%)	ICMS Credit	IPI (12%)	Amount Paid
Gold Acquisition	200.00	7.30	36.00			43.30
Gems Acquisition	200.00	7.30	36.00			43.30
Inputs	100.00	3.65	18.00			21.65
Industrialization x1.4	700.00	25.55	126.00	-90.00	84.00	145.55
Retail x3.0	2100	76.65	378.00	-126.00		328.65

Total Amount Paid	582.45
Total Tax Rate	27.7%

With PEC-45 and PEC-105 all this taxes would be replaced by a **single tax**, IVA.

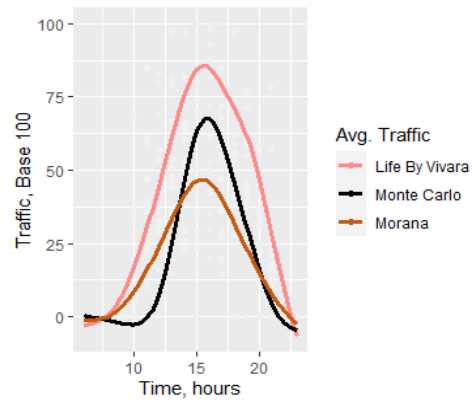
Also, companies would pay the rate according to the **destiny state**, not the origin

PEC-105 is more advanced, and both would be **gradually executed**.

Appendix Z – Foot Traffic analysis

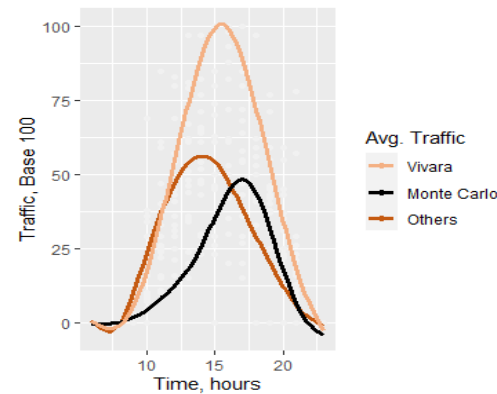
We did a Foot Traffic analysis using proprietary code written in R to understand the relevance of Vivara's top-tier positioning in every Brazilian mall. Most of the company's stores are in corners and top spots in terms of foot traffic. Thanks to the powerful brand, it has earned such privileges in negotiations with the best Brazilian malls. However, is that impactful to the company? From our results, the answer is a sublime yes.

Scenario 1: Life Corner Store in Cluster B



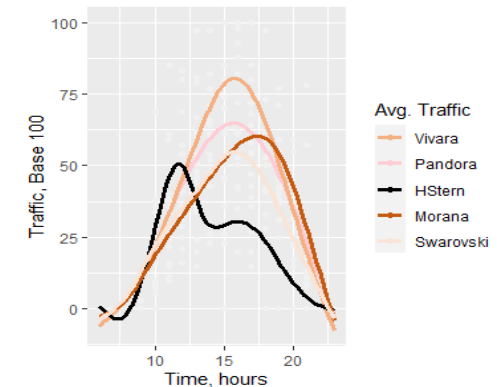
Shopping Eldorado's Life, located in São Paulo has presented the highest foot traffic, in a close competition with Monte Carlo, but much superior to Morana.

Scenario 2: Vivara Corner Store in Cluster A



Shopping Morumbi, as mentioned before, is the highest selling store for Vivara and its foot traffic demonstrates such success, being an isolated number 1

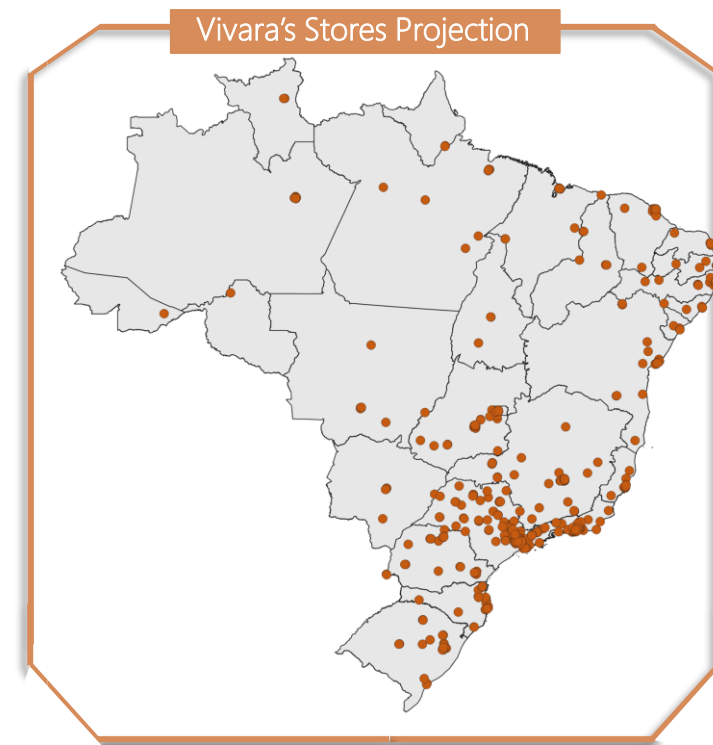
Scenario 3: Vivara corner store outside São Paulo in Cluster A



Shopping Park Shopping Brasília is very competitive, being the largest mall in one of Brazil's wealthiest cities. Once again Vivara has been superior to peers.

It is also worth pointing out that the analysis is limited to Google's data availability, therefore it is not possible to be applied for every mall. Nonetheless, the observations in three very competitive locations is a good proxy for us to reach some conclusions. To wrap up, Vivara is indeed beneficiated with its top spots at Brazilian malls, translating positioning into foot traffic.

Appendix AB – Expansion Analysis of Vivara Stores – Macro Filter



Statistic Data for Existing Vivaras	GPD Per Capita (BRL)	Population(Thousand)
Average	45,8000	1,500
Median	44,000	874
First Quartile	31,700	405

- 
Minimum Population
410,000 inhabitants
- 
Minimum GDP per Capita
37,000 BRL

Appendix AC – Expansion Analysis of Vivara Stores – Income Filter

```
from selenium import webdriver
from datetime import date
from webdriver_manager.chrome import ChromeDriverManager
from selenium.webdriver.chrome.service import Service
from selenium.webdriver.chrome.options import Options

options = Options()

hoje = date.today()

navegador = webdriver.Chrome(service=Service(ChromeDriverManager().install()))

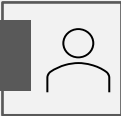
k = 0
i = 0
compr = 1
types = ['aguas-claras-shopping'
'aquas-lindas-shopping'
'alameda-juiz-de-fora'
'alameda-shopping'
'alpha-square-mall'
'amapa-garden-shopping'
'amazonas-shopping-center'
'amaricas-shopping'
'anchieta-garden-shopping'
'anhanguera-parque-shopping'
'aparecida-shopping'
'araguaia-shopping'
'arapiraca-garden-shopping'
'assis-plaza-shopping'
'atrium-shopping-santo-andra'
'balneario-shopping'
'banqu-shopping'
'barra-garden-shopping'
'barrashopping'
]

navegador.get('https://abrasce.com.br/shopping/'+types[0])
```

We did a web scraping on ABRASCE website, that contains the income exposition of every Brazilian mall. The incomes are separated in percentage of A, B, C and D classes.

Income Exposure	A	B	C
Average	28%	52%	28%
Median	19%	35%	30%
1st Quartile	16%	28%	15%

1



Ideal A, B and C Classes Exposure

A : 23% B : 47% C : 27%

Appendix AD – Expansion Analysis of Vivara Stores – Outliers I

Potential Expansion

Competitors

ÁGUAS CLARAS SHOPPING
ALAMEDA SHOPPING
ALTO DA XV MALL
ANCHIETA GARDEN SHOPPING

ARAGUAIA SHOPPING

ATRIUM SHOPPING SANTO ANDRÉ

BANGU SHOPPING
BIG SHOPPING

BOAVISTA SHOPPING
BOSSA NOVA MALL

BOURBON SAN PELLEGRINO

BOURBON SHOPPING ASSIS BRASIL

BOURBON SHOPPING COUNTRY

BOURBON SHOPPING IPIRANGA
BUENA VISTA SHOPPING

BURITI SHOPPING

CARIOCA SHOPPING
CASAPARK SHOPPING CENTER
CAXIAS SHOPPING
CENTER SHOPPING (RJ)

CENTRAL PLAZA SHOPPING CENTER

CIDADE JARDIM SHOPS
FASHION MALL

FELICITTÀ SHOPPING

JK SHOPPING & TOWER

LIBERTY MALL
LINDOIA SHOPPING

MADUREIRA SHOPPING

JR Joias e Relógios, Acium, R Saumer
Joalheiros
Colibri Joias, Morana, Gold Shine
Rennê Joias
Be Loved Semijoias
Acium, Baummer, Constantine Joias, Deville
Joias, Fabulosa Bijou, Firenzi, Maria valente,
Relicário, Rommannel, Samy Semijoias,
Vallentina
Venecia Semi Joias, Acium, Ramella Semi
Joias
Acium, Ostentacao, Casa das Alianças,
Complemento, MAPA DA MINA, Nicolle
Joias, Pandora, Prata e Prata, Rommannel
Diamante Presentes, M&M Jóias
Amanda Jóias e Semi Jóias, Lanny Joalheria
Panna, Art in Rio
Amani, Beretta, Pioner Joalheria e Optica,
Prata Fina, Tropical Pratas
Brunna Oliveira, Casa das Alianças, Crisly,
Prata Fina, Safira
Acium, Coliseu, Crisly, De Conto, Manoa,
Valiatti,
Empório do Aço, Coliseu, Safira, Prata Fina,
Morana, Manôa, Donna Ly, De Conto
Valenza, Magda Santos Joias
Artesa Folheados, Empório do Aço, Esther
Semi Jóias, Deville Jóias, Moya Joalheiros,
Rommannel, Vivara, Vizzardi
Acium, Casa das Alianças, Meiry Joias, W
VIP
Parece shopping de moveis tbm
N&N Joias, Nicolle Joias
Pandora, Empório do Aço
Alianças Lupatelli, Casa das Alianças, Feeling
Joias, Kawasaki
Andrea Colli, Griffith, Laura Marchi, Monica
Botelho
Camilla Scarpa, Lisht
Acessori Semi Jóias, Aliança Joalheiros
Acium, Alinne Joias, Coralli Joias, Paris Joias,
Venancio Joias, Rommannel, Morana
Stelle Joalheria, Charme Joias e Semi Joias,
Morana.
Moara, Toque Final
Acium, Convex, Di Milano, Mapa da Mina,
Rommannel

MAIS SHOPPING

MEGA MODA PARK
MEGA MODA SHOPPING
MILLENIUM SHOPPING MALL

MORUMBI TOWN SHOPPING
NITERIOISHOPPING

OSASCO PLAZA SHOPPING
PAÇO ALFANDEGA OFFICE MALL
PARAGEM SHOPPING

PASSEIO SHOPPING

PÁTIO CIANÊ SHOPPING

PÁTIO SABIÁ
PÁTIO VINHEDOS
PRAÇA SHOPPING
PRATAVIERA SHOPPING

RAPOSO SHOPPING
REPUBLICA STREET MALL

RIOPRETO SHOPPING CENTER
RUA DA PRAIA SHOPPING
SHOPPING AVENIDA CENTER MARINGA

SHOPPING BOA VISTA

SHOPPING BOULEVARD

SHOPPING CAMPO LIMPO

SHOPPING CENTER 3

SHOPPING CENTER AGUAVERDE

SHOPPING CENTER CIDADE DAS FLORES
SHOPPING CENTER LAPA-SP

SHOPPING CENTER TRÊS AMÉRICAS

SHOPPING CERRADO

SHOPPING CIDADE CURITIBA

Acium, Semi-Jóias, Alianças Gold, Anália Alianças,
Casa das Alianças, CS Joalheiros, Morana, Novissa
Joias, VK Pratas

BELLA JÓIAS, Pratas Maliny, Soberana Jóias
WS Pratas
Sublime, Flor de Liz, Onix Prime

Acium, VV Alianças (ambos quiosques)
Site reformando
Acium, Casa das Alianças, JK Alianças, Fashion
Mania Bijoux
GALERIA
Morana, AM Joias,

Acium, Prataria Carioca, Arca Joias, Star Shine

Casa das Alianças, Fator Praia, Prata Fina
nao consegui ver lojas, mas me parece um
shopping bem estranho
Pri Schiavinato
ELEGANCE
Lumiére Joalheria, Prata Tropical
Charme, JK Alianças, Mundo das Jóias, Casa das
Alianças
Estilo Joias

Joia Flor, Morana, Relicário, Carmelli Karla TI,
Carrazone Joalheiros, Omy
Aurum Bijou, By Woman
Baummer Semi Joias,
Amanda Jóias E Semi Jóias, Lanny Joalheria, Bella
Bijoux

Acium, Morana. Star Shine Pratas, Zaffira Design

Alianças CS, Casa das Alianças, Johara Gold,
Tokey House, Três Reis Relojoaria
Brantes Joalheiros, Swarovski, Life by Vivara (?),
Empório do Aço

Gubert Prata & Folheados, Joie, La Rosie Bijoux

SHOPPING CENTER CIDADE DAS FLORES,
Baummer, Baummer, Scheffer Atelier
Omega Relojoaria e Jóias

Nicolli Joias, Mon Biojux, Carla Semijoias

Arf, Deville Joias, Relicario, Samy Joias

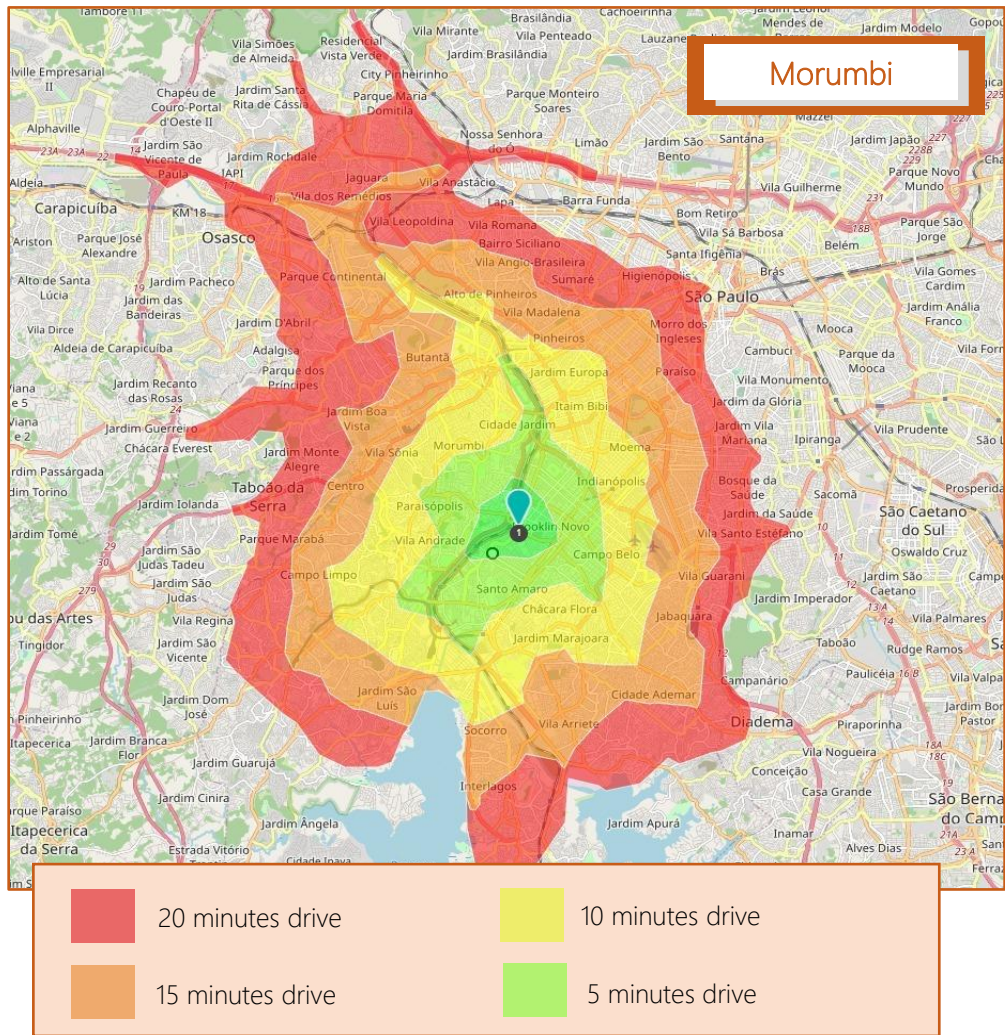
A Baronesa, Baummer, Capim Limão, Charla's
SemiJoias, Luma Joias, Lumaê Pratas, Metzen
Joias, Missara SemiJoias, Oliveira Joias, Prata
Chik, Prata e Arte, Show das Alianças

We searched for two
specific criteria in our
checklist to see if a
mall made sense.

1: Jewelry Stores

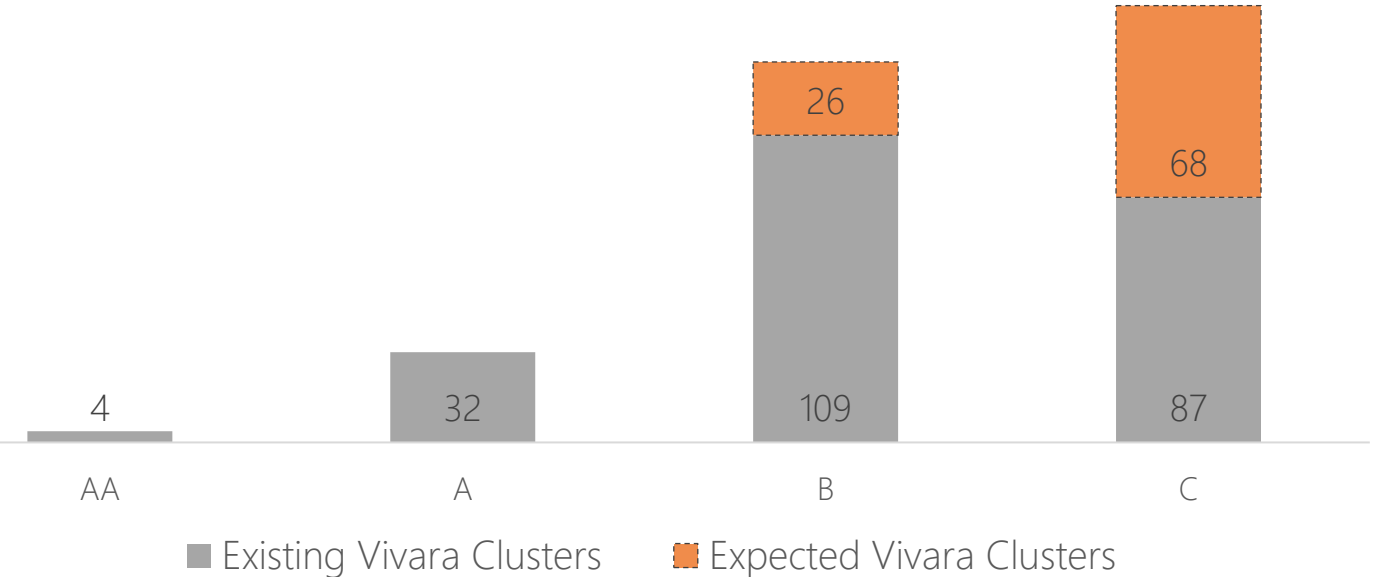
2: Flagship Stores

Appendix AE – Isochrone Analysis – Vivara Results

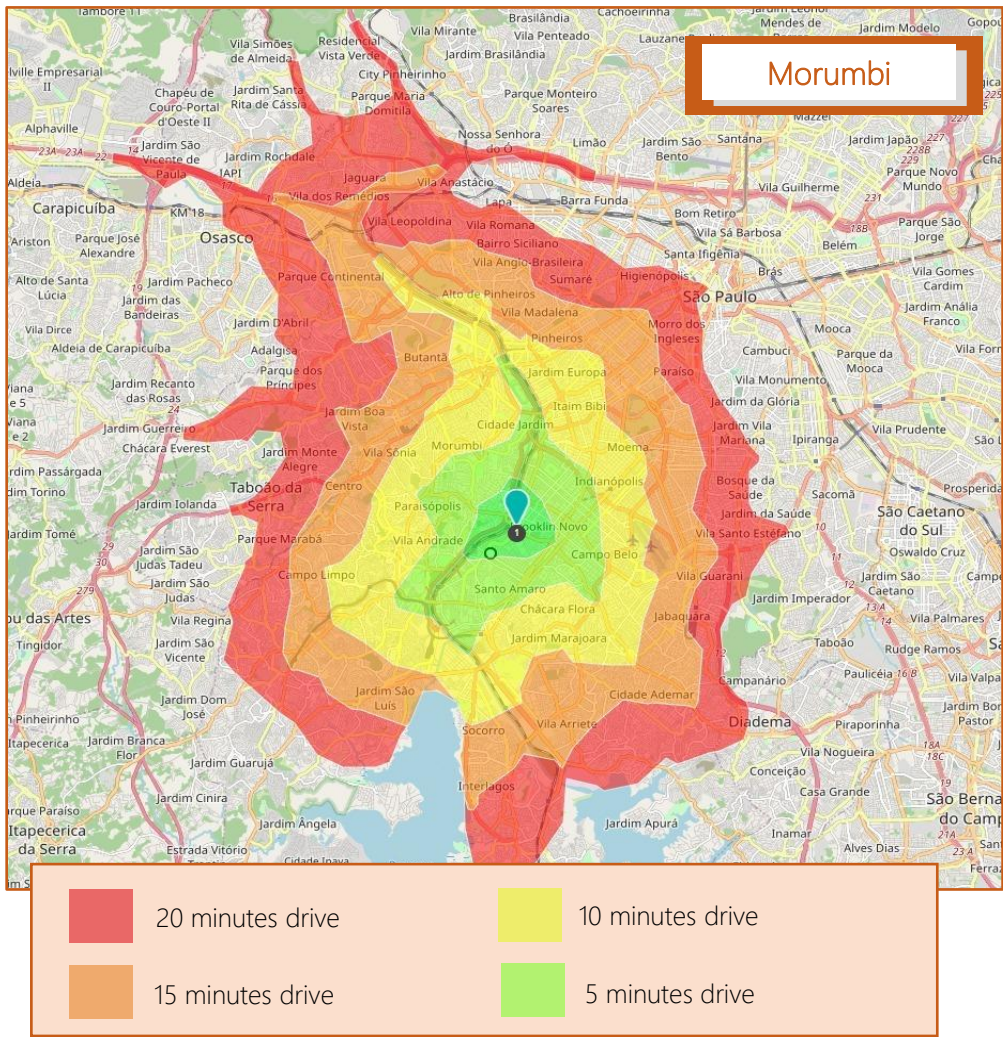


Criteria For Clusters	Population	A Income Exposure	B Income Exposure	C Income Exposure
Cluster A	35,000	45%	43%	12%
Cluster B	28,000	28%	54%	18%
Cluster C	18,500	12%	34%	54%

Vivara's Expected Clusters in 2032

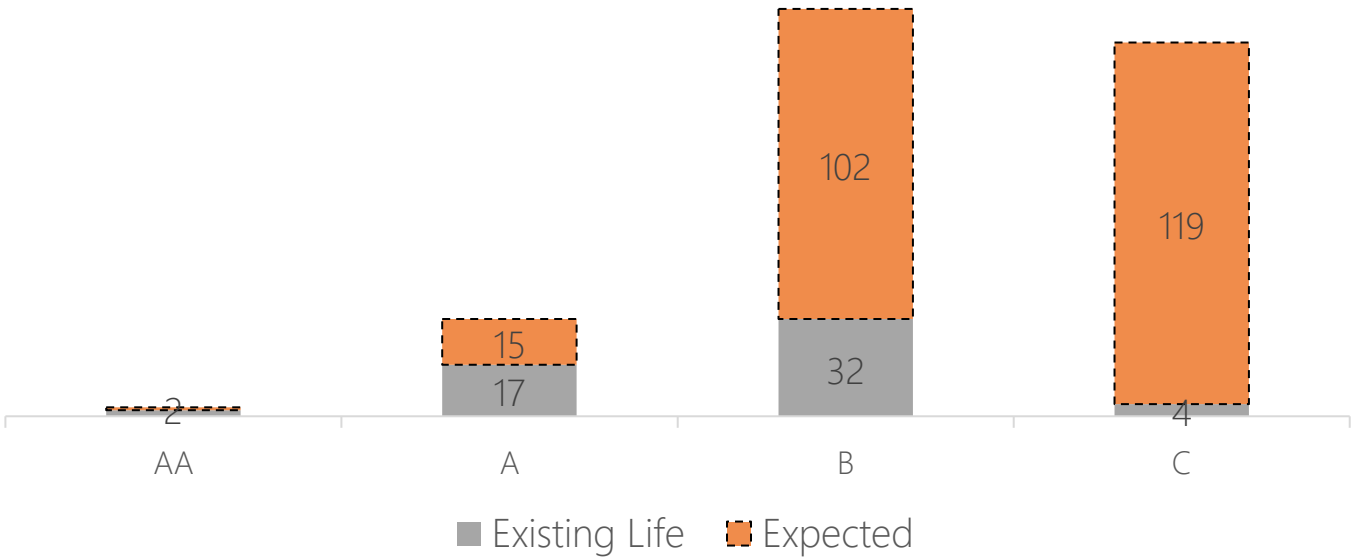


Appendix AF – Isochrone Analysis – Life Results



Criteria For Clusters	Population	A Income Exposure	B Income Exposure	C Income Exposure
Cluster A	35,000	45%	43%	12%
Cluster B	28,000	28%	54%	18%
Cluster C	18,500	12%	34%	54%

Life's Expected Clusters in 2032



Appendix AG – Daily Web Scrapping

We used a proprietary Python algorithm to analyze price fluctuation on each company website. The weekly data above allow us to reach many relevant conclusions regarding vertical integration structure. For starters, we have monitored a huge price spike in Vivara on October 12th. Such a spike was due to a sudden shift in the available products, as only 53% of SKUs from September 7th were kept. This result is, in our view, proof of Vivara's inventory flexibility, as opposed to competitors, whose inventory is almost static (e.g., Tiffany has not changed a single SKU in the time monitored, Casa das Alianças remained 85% static). Furthermore, we managed to separate pricing per each type of product, showing us that Vivara hardly ever increases the website ticket, which is drastically more affordable than Pandora's.

Vivara (exc. Life) Web-Scrapping						
Date	Sep 7th	Sep 14th	Sep 21th	Oct 5th	Oct 12th	Oct 20th
Average	2595	2540	2422	2508	4736	4543
Median	1650	1590	1490	1550	2520	2590
Mode	990	990	750	750	990	990
Std Dev	3568	3571	3415	3515	7453	6613

Life Web-Scrapping						
Date	Sep 7th	Sep 14th	Sep 21th	Oct 5th	Oct 12th	Oct 20th
Average	297	301	296	298	347	346
Median	250	250	250	250	320	320
Mode	160	160	160	160	250	250
Std Dev	177	180	177	177	185	175

Pandora Web-Scrapping						
Date	Sep 7th	Sep 14th	Sep 21th	Oct 5th	Oct 12th	Oct 20th
Average	1263	1207	1243	1366	1549	1513
Median	909	909	909	909	1069	1069
Mode	1735	1730	1830	779	779	779
Std Dev	779	779	779	2097	2542	2472

Tiffany Web-Scrapping						
Date	Sep 7th	Sep 14th	Sep 21th	Oct 5th	Oct 12th	Oct 20th
Average	28006.5	28006.5	28006.5	28006.5	28006.5	28006.5
Median	13000	13000	13000	13000	13000	13000
Mode	6800	6800	6800	6800	6800	6800
Std Dev	36753	36753	36753	36753	36753	36753

Casa das Alianças Web-Scrapping						
Date	Sep 7th	Sep 14th	Sep 21th	Oct 5th	Oct 12th	Oct 20th
Average	1834	1756	1225	1317	1153	1082
Median	582	572	345	415	524	479
Mode	2583	81	81	81	582	116
Std Dev	2583	2545	2447	2435	2446	2452

Hstern web-scrapping						
Date	Sep 7th	Sep 14th	Sep 21st	Oct 5th	Oct 12th	Oct 20th
Average	9575.77	9579.58	9583.12	9605.65	9604.39	9745.98
Median	7970	7970	7970	7970	7970	7970
Mode	457	457	457	457	457	457
Std Dev	7597.06	7593.88	7595.33	7594.29	7602.44	7730.63

Price Average per Product Type Sep 7th Pandora						
Date	Sep 7th	Sep 14th	Sep 21th	Oct 5th	Oct 12th	Oct 20th
Ring	1263	1207	1243	1366	1549	1513
Bracelet	1630	1886	1838	1896	1884	1890

Price Average per Product Type Sep 7th Life						
Date	Sep 7th	Sep 14th	Sep 21th	Oct 5th	Oct 12th	Oct 20th
Ring	290	308	324	314	348	373
Bracelet	445	429	428	435	430	425

Appendix AH – ESG Index

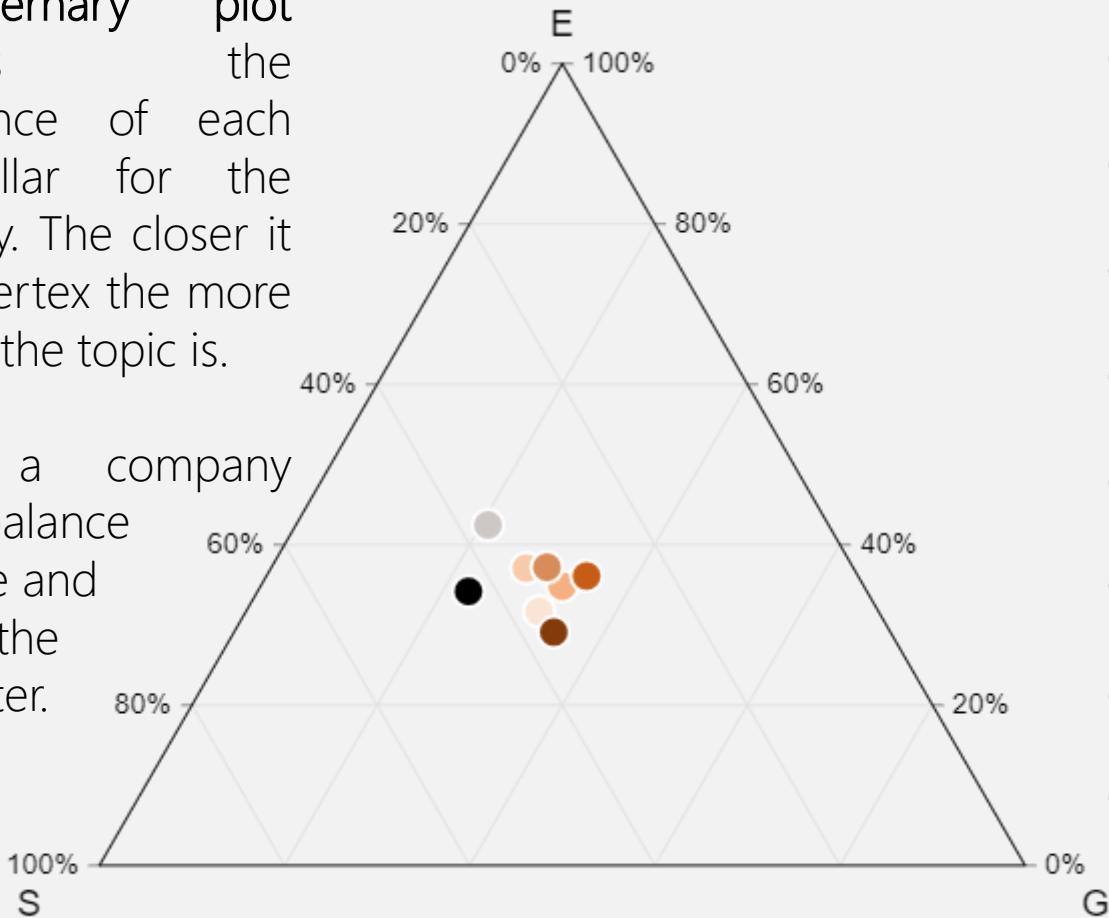
Grade	Meaning
0	The company doesn't disclose plans about the criteria, doesn't have any goals or doesn't mention how they're making it
1	The company doesn't disclose plans, but mention the criteria and have vague goals, even though there is not much effort put into it or it failed in the past
2	The company has an execution plan, few ESG goals, but its efforts have failed in the past or are not enough to make an impact
3	The company is executing a plan that already succeeded in some way, even if it doesn't have high impact
4	Clear and traceable goals, with a plan that haven't reached its full potential
5	Clear goals for each ESG spectrum, strong execution plan with dedicated team working on it, already showing impactful results

	Criteria	Vivara	Soma	Arezzo	LVMH	Pandora
E1	Does the company have a well-defined environmental responsibility policy, with relevant purposes?	5	4	5	4	5
E2	Is the company signatory to pacts with major global institutions? And sectoral? Does it associate environmental responsibility with the products and services offered?	5	4	4	4	5
E3	Is the company transparent about its practices? How are ESG disclosures?	4	3	5	2	5
E4	Are there well-defined goals for the coming years? Are they ambitious? Have they been fulfilled historically?	4	4	5	3	4
E5	Do the company's suppliers follow recognized environmental standards (e.g. less carbon emissions and water usage)	5	5	4	4	5
E6	Is there a waste management policy?	5	4	5	3	5
E Score		4.7	4.0	4.7	3.3	4.8
S1	Customer focused culture and position of the company in complaint/problem resolution, such as Reclame Aqui	5	5	4	5	4
S2	How diverse is the company now?	4	4	3	3	3
S3	Initiatives to promote diversity in the company	5	4	5	4	4
S4	Employees perception of the company (Glassdoor)	4	5	4	4	4
S5	Talent attraction and retention: career opportunities, remuneration	5	4	4	5	5
S6	Does the company seek to make donations and investments in projects focused on the company	4	4	4	3	3
S7	Has the company had problems with product regulations? Is it frequent?	4	5	5	4	4
S Score		4.4	4.42857	4.1	4.0	3.9
G1	Board Composition: is there i) at least 20% of women, ii) 1/3 of independent members or iii) any ESG-specialist member in the board?	5	4	5	5	5
G2	Does the company have any corruption-related scandals recorded in the past? Have they done anything to change their practices?	5	5	5	4	5
G3	sectoral? Does it associate environmental responsibility with the products and services offered?	4	4	4	4	5
G4	How does the compensation policy work? Is there a relevant variable stake in the management's income?	4	3	3	3	5
G5	Is there a counsel member also at the executive direction? Is there any conflict of interests?	4	4	4	3	4
G5	What are the company policies regarding control and minority shareholder protection?	4	4	4	3	4
G Score		4.4	4.1	4.2	3.8	4.6
ESG	Final Grade	4.5	4.2	4.3	3.7	4.5

Appendix AI - Environmental, Social or Governance?

The ternary plot indicates the importance of each ESG pillar for the company. The closer it is to a vertex the more relevant the topic is.

Ideally a company should balance the three and be near the Barycenter.



- VIVARA
- Cartier
- H&M
- RENNER
- PANDORA
- SOMAYA
- AREZZO
- LVMH

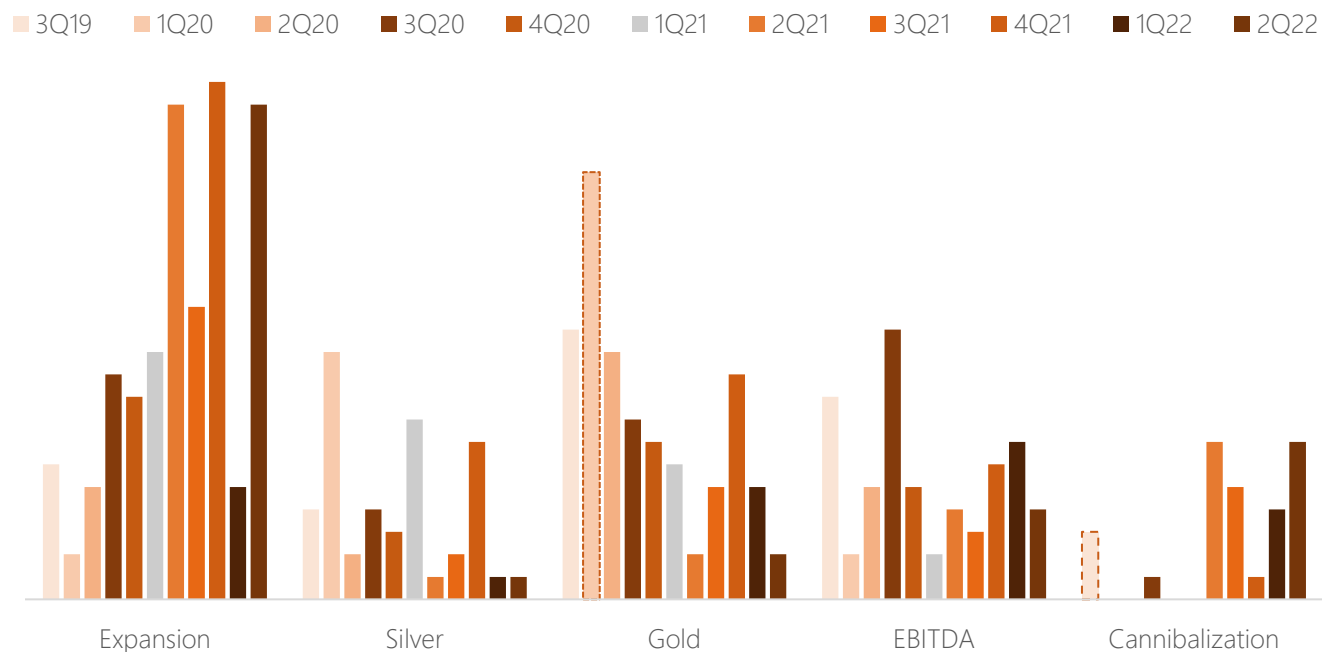
E	S	G	Total
4.7	4.4	4.4	4.5
4.5	3.4	2.2	3.3
2.7	3.0	1.8	2.4
4.5	4.0	4.2	4.2
4.8	3.9	4.6	4.5
3.8	4.4	4.1	4.1
4.3	4.1	4.2	4.2
3.2	4.0	3.8	3.7

Appendix AJ – The Kauffman family

Nelson Kaufman	Marcio Kaufman (counsel)	Marina Kaufman (HR and Marketing)	Paulo Kruglensky (CEO)
<ul style="list-style-type: none">• In Vivara since 1974• Responsible for vertical integration in Manaus• 67 Years old	<ul style="list-style-type: none">• In Vivara since 1974• Responsible for eCommerce implementation• Created Life brand	<ul style="list-style-type: none">• In Vivara since 2011• Company's main heir• Brought Marina Ruy Barbosa as Life's face	<ul style="list-style-type: none">• Failed experience at Etna• Márcio's cousin• Bouncing back, reaching guidance's goals
Nelson is buying Márcio's stocks		In Nov 23rd she temporarily replaced Nérito Vinieri as HR director	

Appendix AK – Corporate Governance

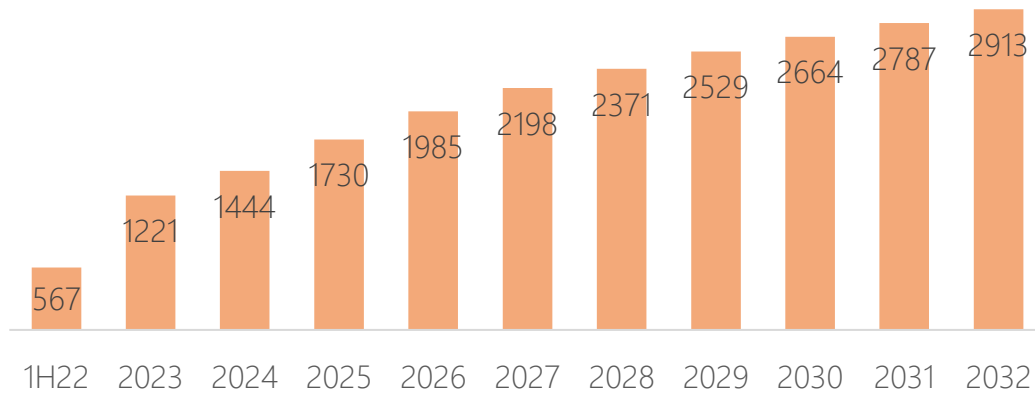
To get a better understanding of the strategic positioning of Vivara's board, we wrote a Python code to count the most used words on the previous conference calls. To get the transcripts, we used Capital IQ. Once the code plotted the most used words, we created a filter, looking to common words, such as Silver, Gold, Life, Expansion, and others. The output allows us to create a precise picture of the most concerning factors about Vivara, looking from the board's point of view but also from the market perspective. It's very noticeable that during pandemic times, raw materials were a much more critical concern than expansion, for example. After those moments of crisis, it's possible to see that expansion became the most important topic of discussion.



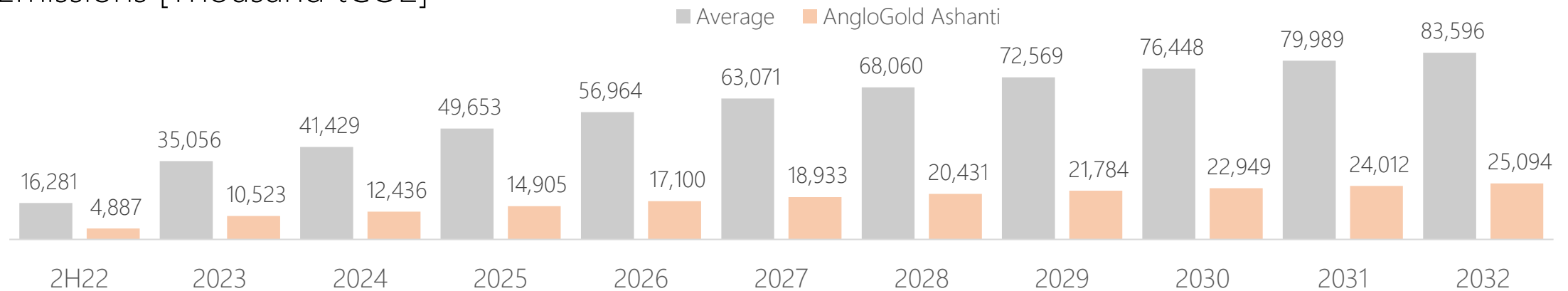
Name	Position	Background
João Cox	Chairman of the Board	<div> <div>Claró</div> <div>EMBRAER</div> </div>
Márcio Kaufman	Director	VIVARA
Anna Votta	Independent Director	L'OCCITANE EN PROVENCE
Sylvia Leão	Independent Director	TOTVS
Fábio José	Independent Director	Google

Appendix AL – CO2 Social Cost Analysis

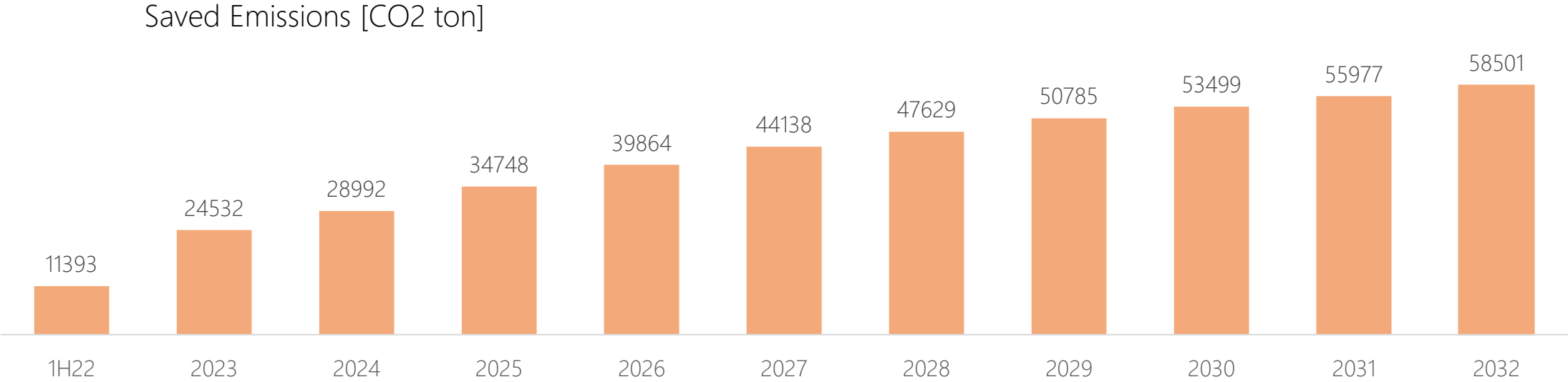
Projected Gold purchased, [kg]



Emissions [Thousand tCO2]



Appendix AL – CO2 Social Cost Analysis



Nature brings social impact of emissions to monetary value based on discount rates...

Discount Rate	SC-CO2 @PV	"Saved" SC-CO2
3%	80 US\$	151,459
2.5%	118 US\$	229,730
2%	185 US\$	370,510
1.5%	308 US\$	634,750

Vivara’s gold supplier **emmits 3 times less** than global average

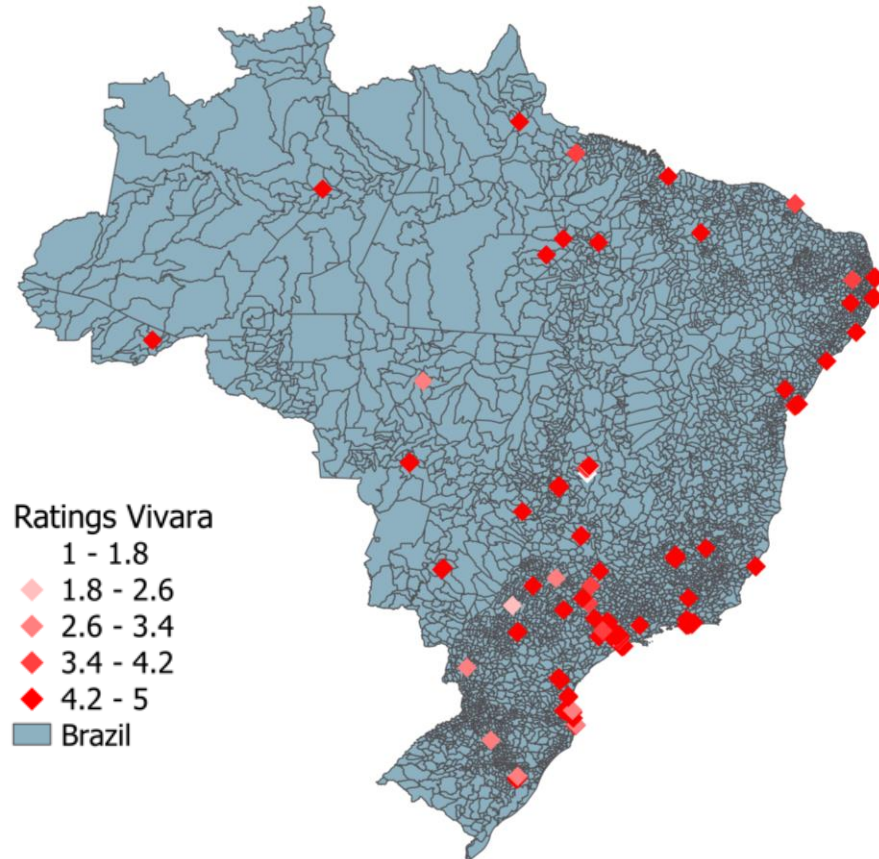
25% of gold is bought from used jewels

No ilegal gold panning supplier

Appendix AM – Vivara stores ratings

Vivara Stores Ratings

Source: Vivara, QGIS, Team 2



```
def main():
    api_key = [REDACTED]
    lat = []
    lng = []
    rating = []
    nr = []
    for i in range(len(leitura())):
        try:
            if(search_place(leitura()[i], api_key)[3] > 0):
                lat.append(search_place(leitura()[i], api_key)[0])
                lng.append(search_place(leitura()[i], api_key)[1])
                rating.append(search_place(leitura()[i], api_key)[2])
                nr.append(search_place(leitura()[i], api_key)[3])
        except:
            pass

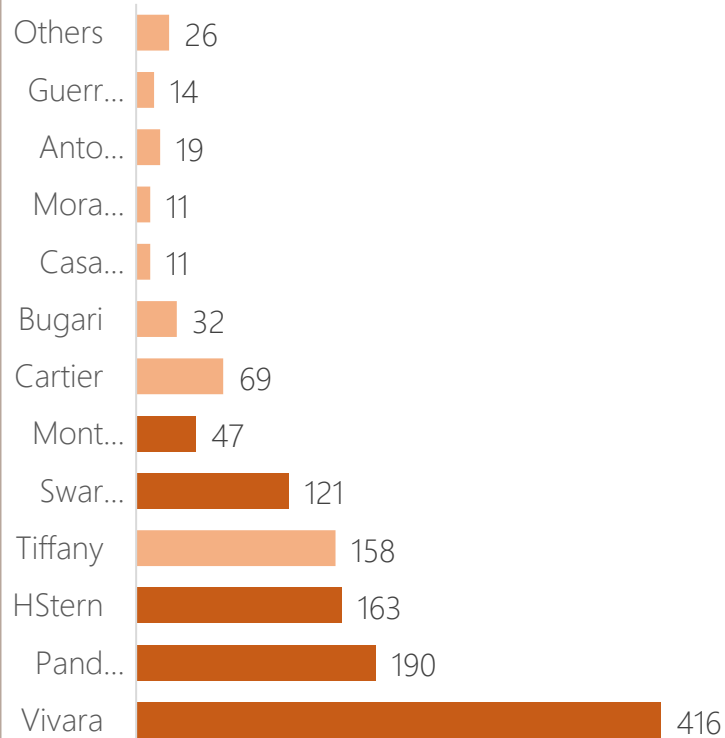
    df = pd.DataFrame({'lat': lat, 'lng': lng, 'rating': rating, 'nr': nr})
    df.to_excel("RatingsLife.xlsx")

if __name__ == '__main__':
    main()
```

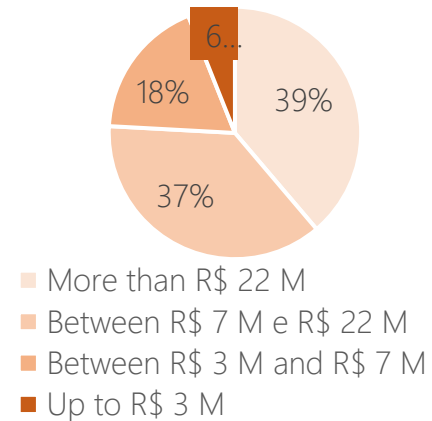
Appendix AN – Field Research

We conducted field research using Google Forms to demonstrate Vivara's brand awareness in the country, as well as to better understand the sector. The research had 527 answers. The first three questions were mainly made to profile each interviewed, as we got gender, age, and domiciliary income. After that, we asked the interviewee to mention the first three pieces of jewelry he or she could think of, which would serve as our share of mind index. Finally, we posed two questions concerning the sector dynamics, verifying purchase recurrence and motivation.

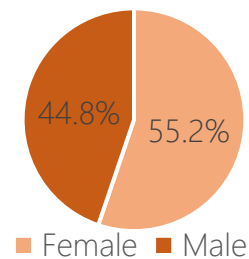
The first 3 jewelries you remember



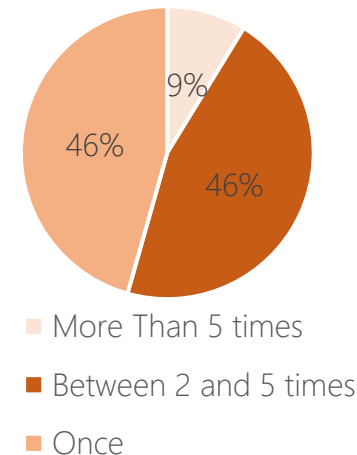
Income from sample



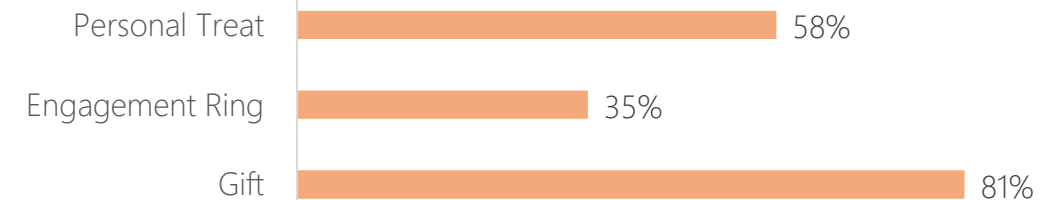
Gender from sample



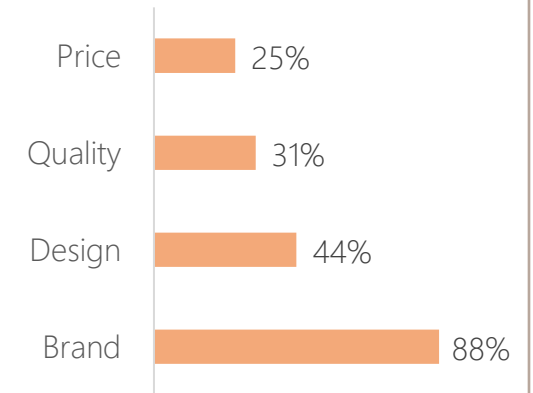
Purchase recurrence



Purchase motivation



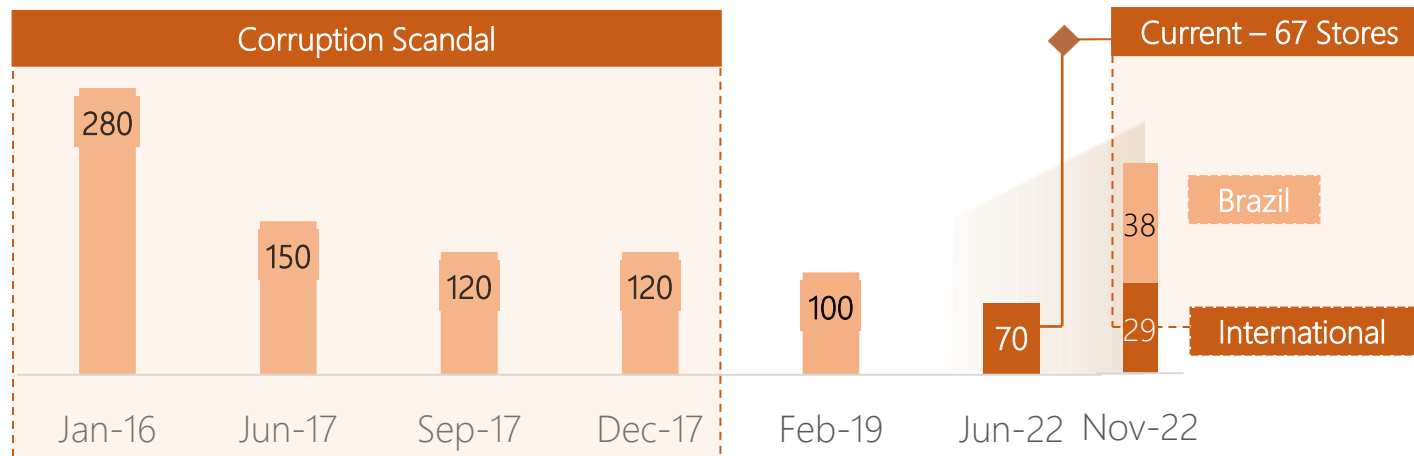
Factors to choose Vivara



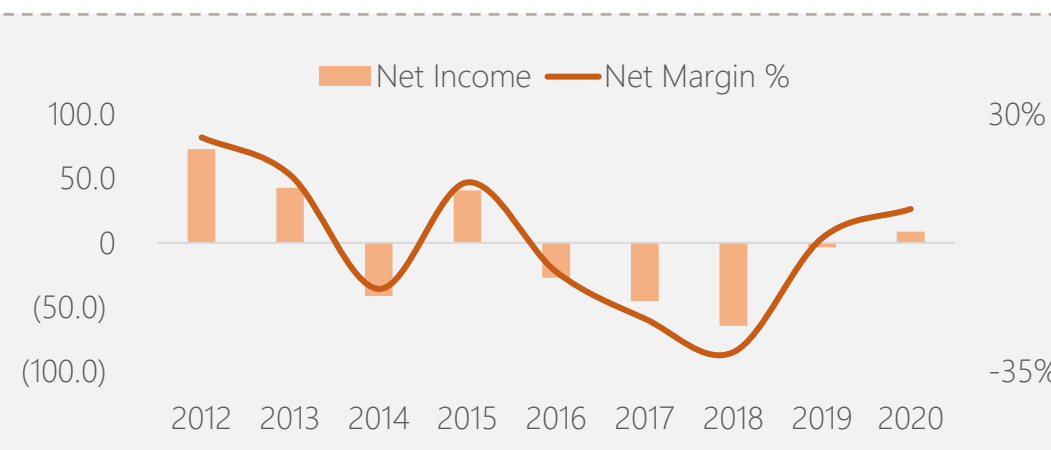
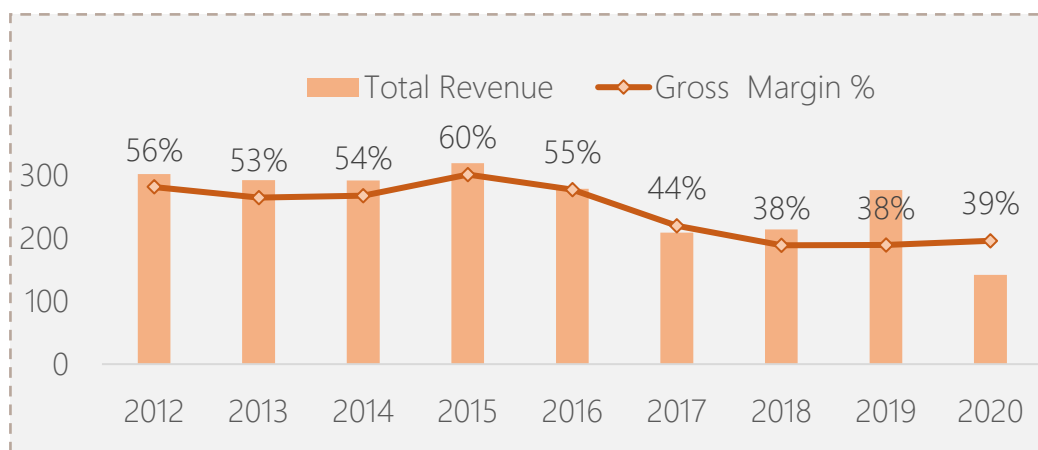
Appendix AO - HStern downfall

HStern has been suffering from closing stores due to a Corruption Scandal...

Stores Evolution [#]



Back in 2020 there were strong rumors of Vivara acquiring HStern. We do not believe in the company's turnaround and corruption image could hurt Vivara.



Appendix AP -Gross Margin per Product Sanity Check

IR provides information about its product's gross margins, which seemed excessively high (more than 80% for Life). Therefore, we run a sanity check to verify such numbers. With the company's gross margin by quarter and the mix of revenue per product since 2Q19, we elaborate on the system below. With four variables and four inequations, we use MS Excel's Solver tool to minimize (I) for every quarter, given the variables (gross margins) constraints:

(I)
$$Gross\ Mg. = \frac{\sum_i Gross\ Mg_i * Revenue_i}{Revenue}$$

(II)
$$\left(Gross\ Mg. - \sum_{i=Products}^2 Gross\ Mg_i * \frac{Revenue_i}{Revenue} \right) = 0$$

Equation (II) to be minimized with solver, using constraints

Constraints

IR's Gross Mg. Range (inequations)

80% < Gross Mg._{Life} < 84%

65% < Gross Mg._{Jewelry} < 68%

40% < Gross Mg._{Watches} < 45%

50% < Gross Mg._{Access.} < 55%

Gross Mg. Sanity Check	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22
Jewelry	65%	68%	68%	67%	68%	68%	68%	65%	67%	68%	67%	67%	66%
Life	80%	82%	82%	82%	82%	82%	82%	80%	82%	82%	82%	82%	82%
Watches	40%	45%	45%	42%	45%	45%	45%	40%	42%	44%	42%	42%	42%
Accessories	50%	55%	55%	52%	55%	55%	55%	50%	52%	53%	52%	52%	52%
Gross Mg. Calculated	65%	68%	68%	66%	67%	68%	69%	66%	68%	68%	68%	68%	68%
Gross Mg. Reported	63%	68%	72%	66%	68%	70%	69%	66%	68%	68%	68%	68%	68%
Calculated - Reported	2,1%	0,2%	4,0%	0,0%	0,5%	2,0%	0,2%	0,4%	0,0%	0,0%	0,0%	0,0%	0,0%

Appendix AQ - 4-Walls

We model the 4-walls with the Net Revenue of Return provided by the company for each cluster. Gross margins are calculated with the gross margin per product and with mix of products per cluster. Sales, Lease and D&A are calculated with historical data and average area per store.

VIVARA - A	1y	2y	3y	VIVARA - B	1y	2y	3y	VIVARA - C	1y	2y	3y	LIFE	1y	2y	3y
Net of Return	10700	10700	10700	Net of Return	6500	6500	6500	Net of Return	4100	4100	4100	Net of Return	3379	5080	5486
Deductions	-20%	-20%	-20%	Deductions	-20%	-20%	-20%	Deductions	-20%	-20%	-20%	Deductions	-20%	-20%	-20%
Net Revenue	8560	8560	8560	Net Revenue	5200	5200	5200	Net Revenue	3280	3280	3280	Net Revenue	2703	4064	4388
Gross Mg.	66%	66%	66%	Gross Mg.	67%	67%	67%	Gross Mg.	67.1%	67.1%	67.1%	Gross Mg.	80%	80%	80%
Gross Profit	5618	5618	5618	Gross Profit	3478	3478	3478	Gross Profit	2202	2202	2202	Gross Profit	2163	3251	3511
Sales	-2599	-2599	-2599	Sales	-1586	-1586	-1586	Sales	-1180	-1180	-1180	Sales	-1361	-1361	-1361
Lease	-377	-377	-377	Lease	-230	-230	-230	Lease	-171	-171	-171	Lease	-209	-209	-209
EBITDA	2643	2643	2643	EBITDA	1662	1662	1662	EBITDA	851	851	851	EBITDA	593	1681	1941
D&A	-78	-78	-78	D&A	-108	-108	-108	D&A	-94	-94	-94	D&A	-69	-69	-69
EBIT	2565	2565	2565	EBIT	1554	1554	1554	EBIT	757	757	757	EBIT	524	1612	1872

Life's mature revenue is 4.3 million, but mature stores have only 46 square meters. We consider the Life store in the 4-wall to have 67 square meters.

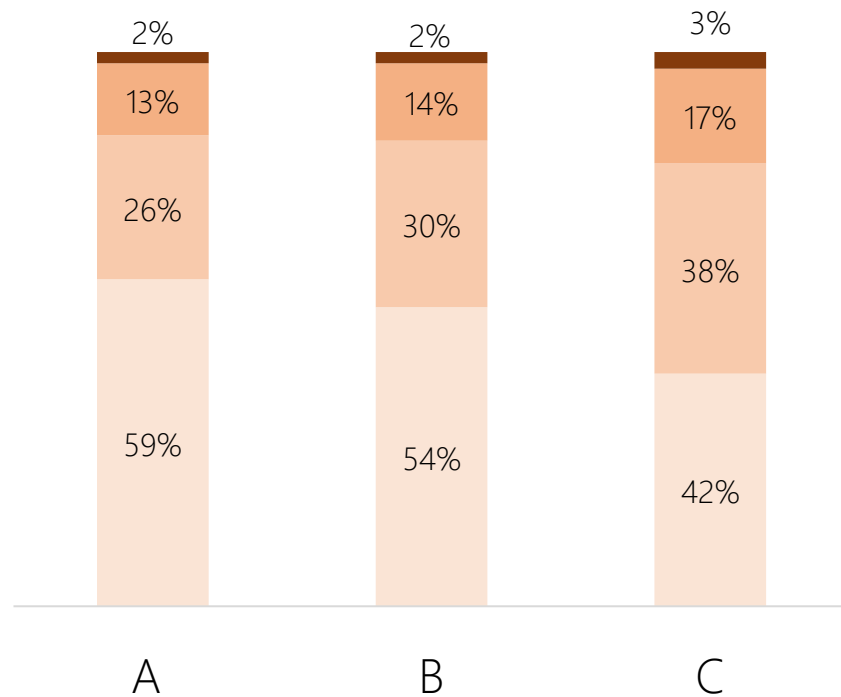
In cluster C, we project Life with 70% of the revenue in clusters A and B.

Appendix AR - Cluster details

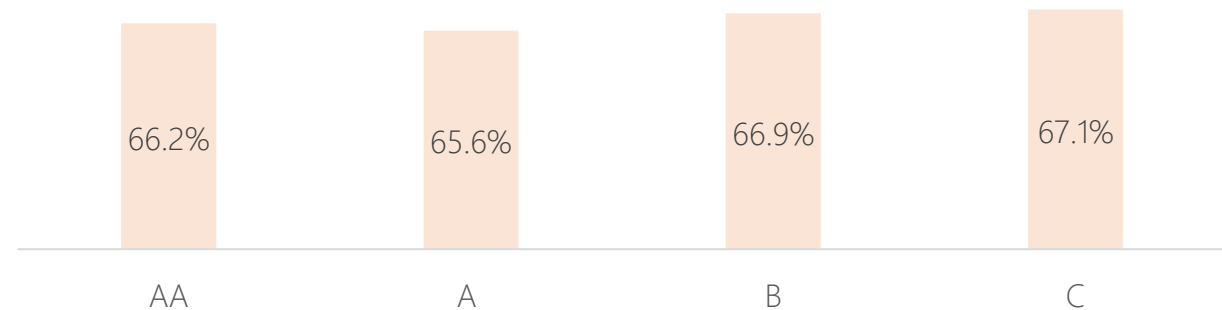
Specifics of clusters

Revenue Mix per Cluster

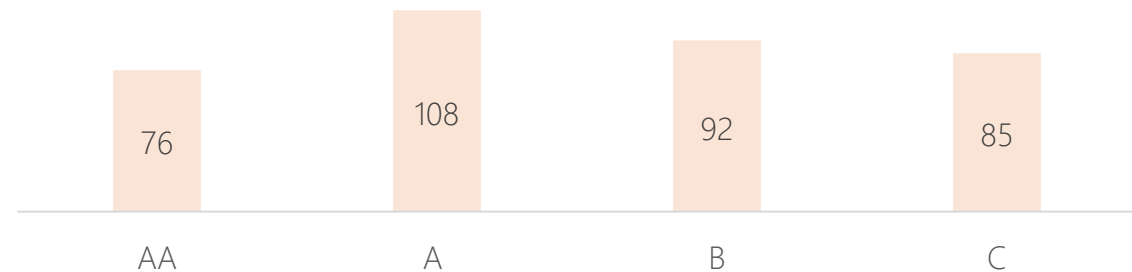
Jewelry Life Watches Aecessories



Gross Margin [%]



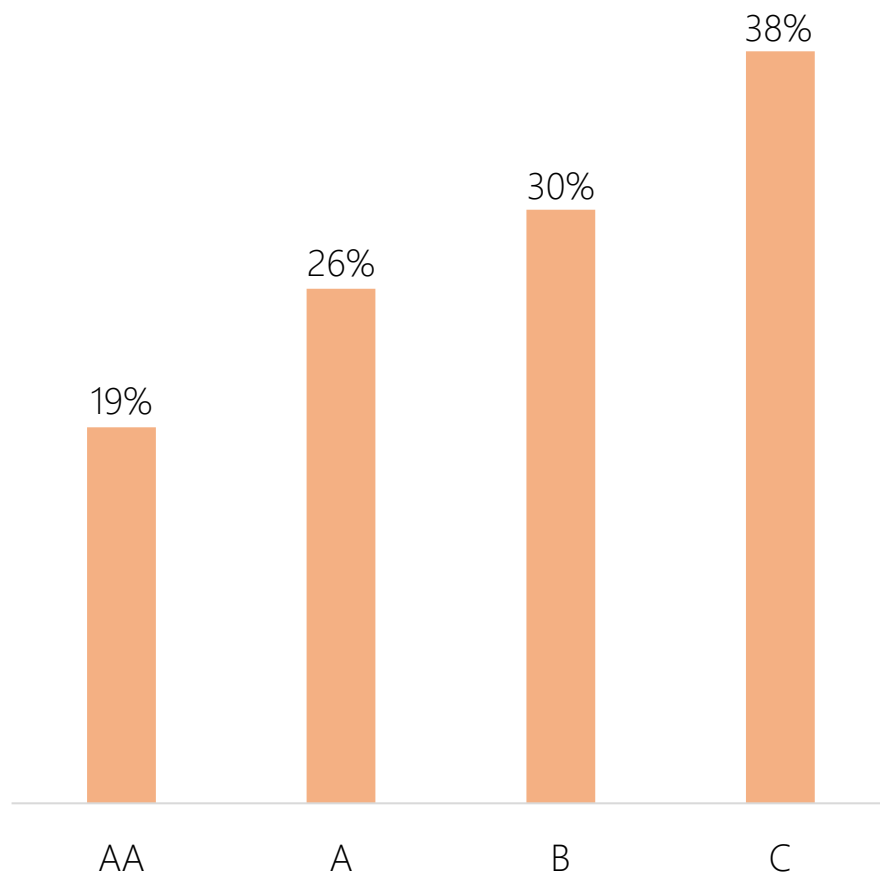
Average Area (sqm)



Appendix AS - Cannibalization Threshold

Cannibalization Analysis

Percentage of Life Products in Each Cluster Revenue



With the 4-walls, we calculate what would be the returns of a maturing Life minus the cannibalization of the Vivara's life revenue.

Then, we do a NPV for the investment (Invested Capital for opening a Life = 3.645 MM BRL).

Cluster	Investment	1 y	2 y	3 y	Perpetuity	NPV
A						
EBIT Diff.		-346	678	922	968	
@ PV	-3.645	-300	512	606	6.363	3.536
B						
EBIT Diff.		-132	891	1.135	1.192	
@ PV	-3.645	-115	674	746	7.836	5.496
C						
EBIT Diff.		-610	128	304	319	
@ PV	-3.645	-530	97	200	2.098	-1.781

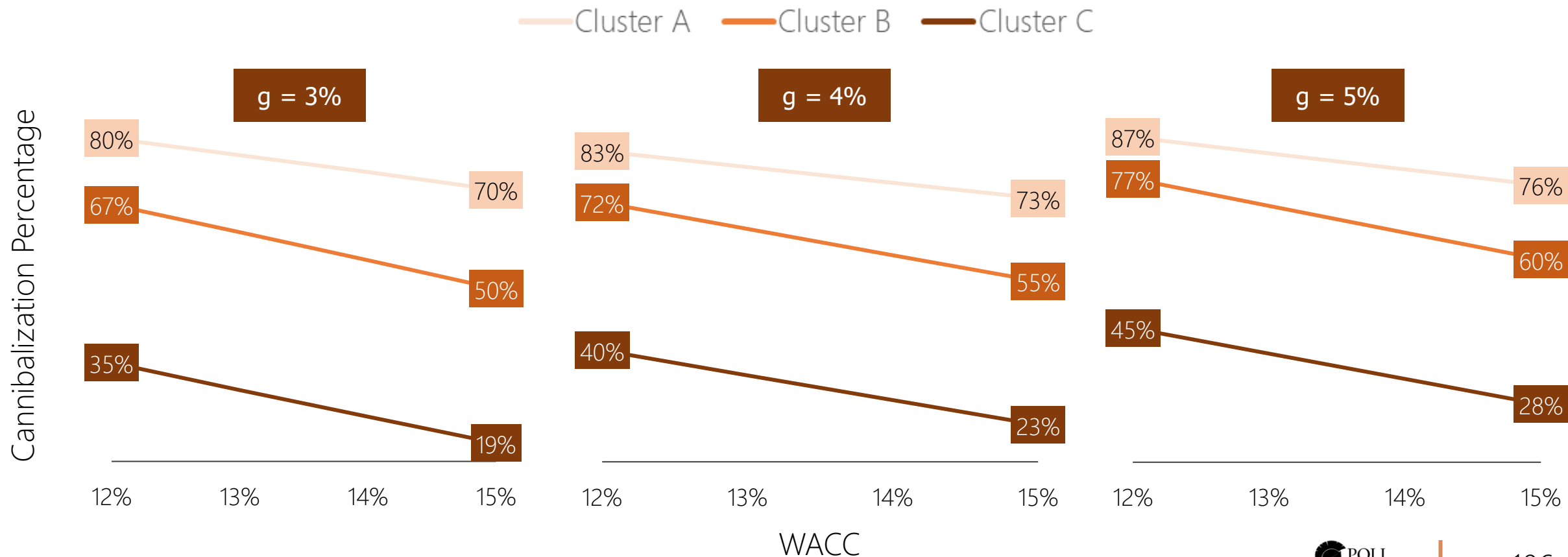
WACC = 15%; g = 5%;

Cannibalized Revenue = 50%

Appendix AS - Cannibalization Threshold

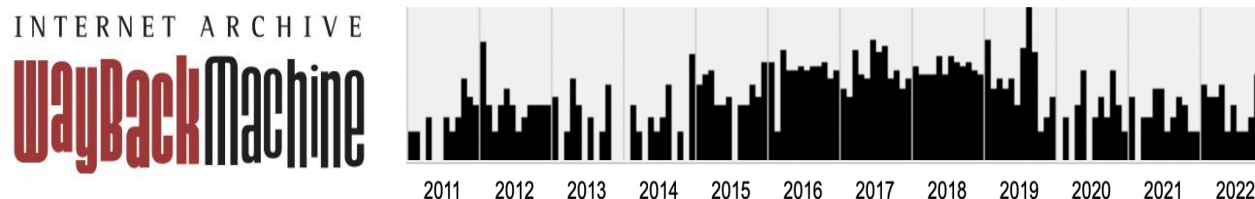
Then, we find the percentage of life revenue cannibalized in the Vivara store such that $NPV = 0$.

Such cannibalization level is the maximum level that still justifies a Life opening.
We sensitize by WACC and perpetuity growth

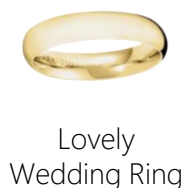


Appendix AT - Historical Price Analysis

WayBack Machine archives websites

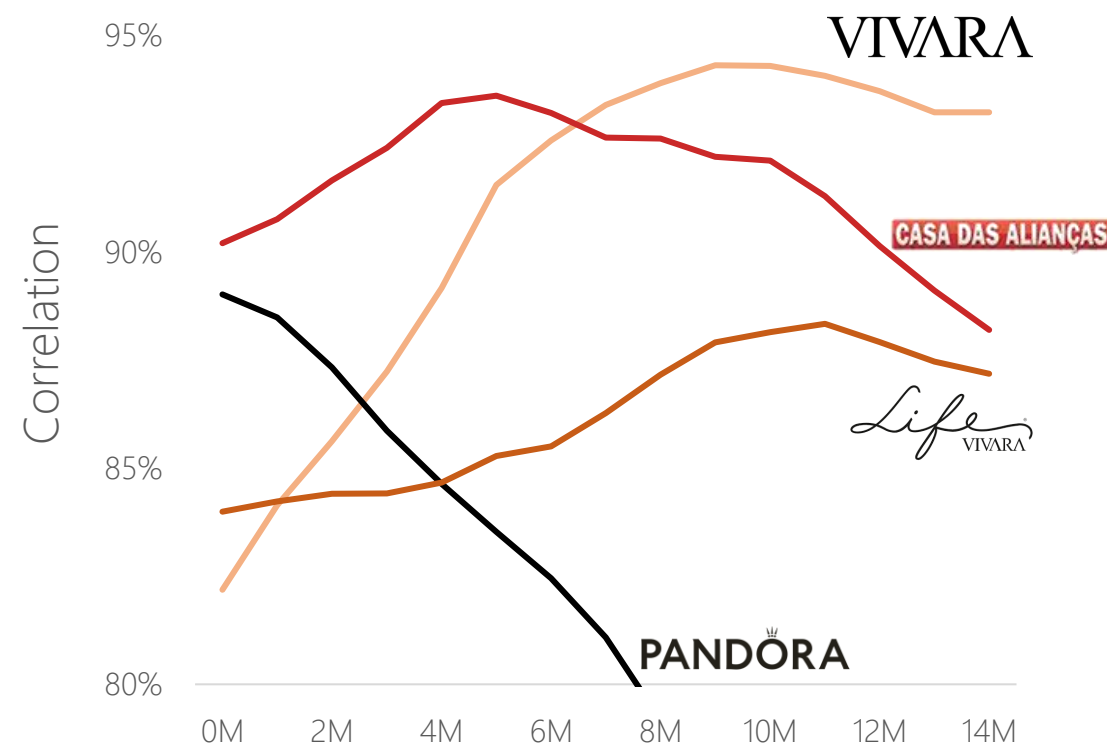


Explore more than 759 billion [web pages](#) saved over time <http://vivara.com.br/>



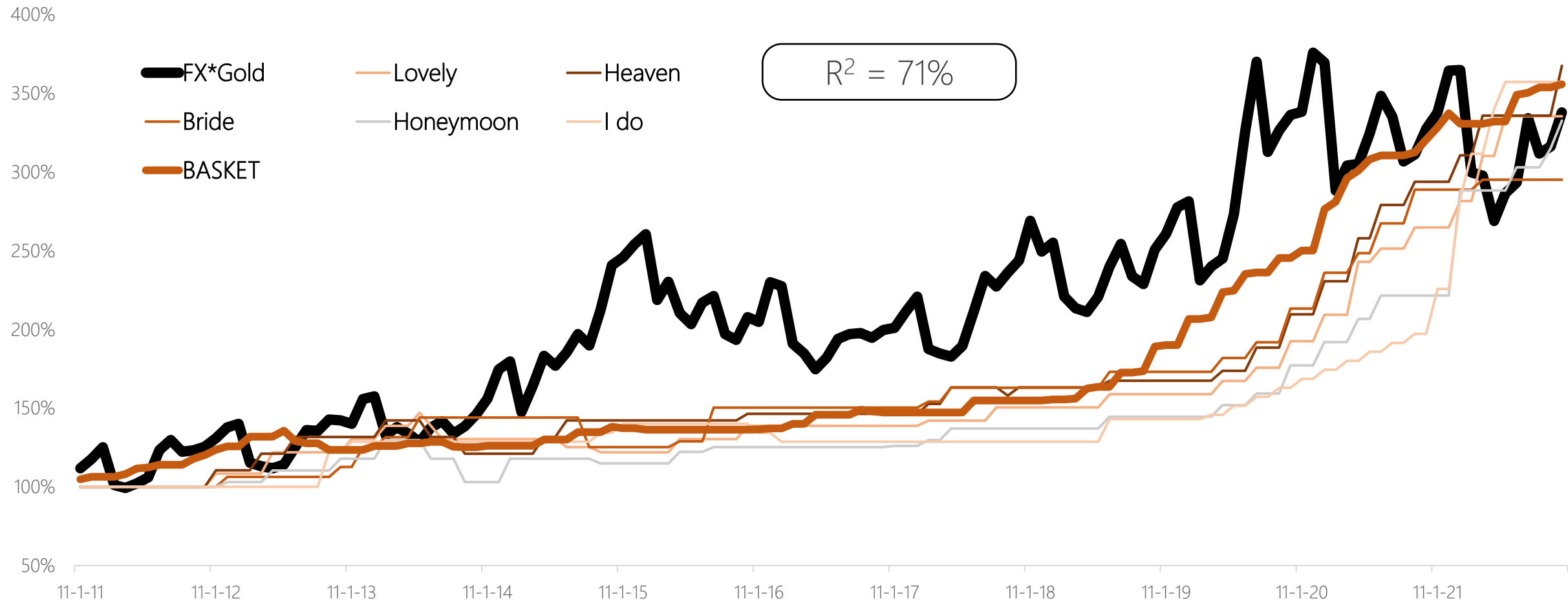
We found 5 constant Gold Products Since 2011.
We run the same analysis for peers.

Time for each company to repass costs to its products



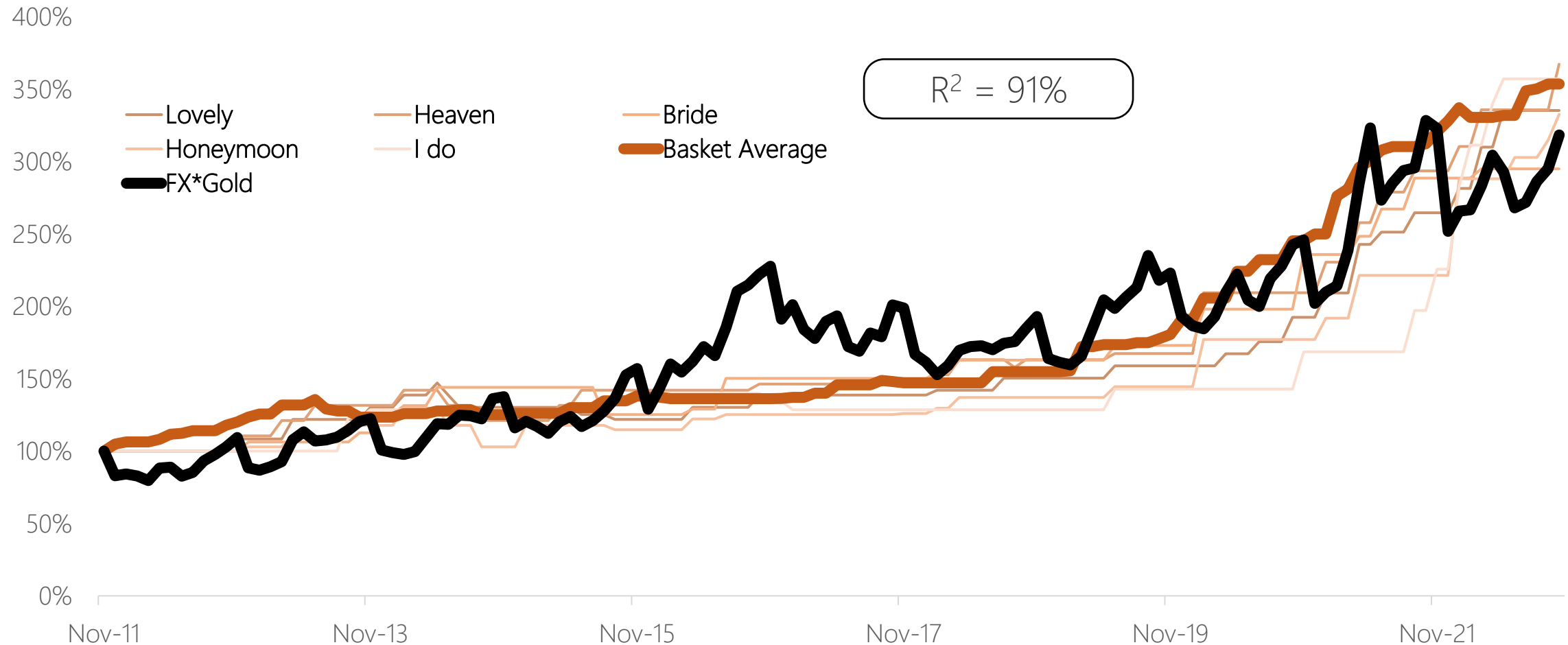
Appendix AT - Historical Price Analysis

Vivara's products and gold evolution without lag



Appendix AT- Historical Price Analysis

Vivara's products and gold evolution with 1 year lag



Other players also pass along raw material prices

Both multinational and mom & pop's players also pass raw material prices, but at a faster pace than Vivara

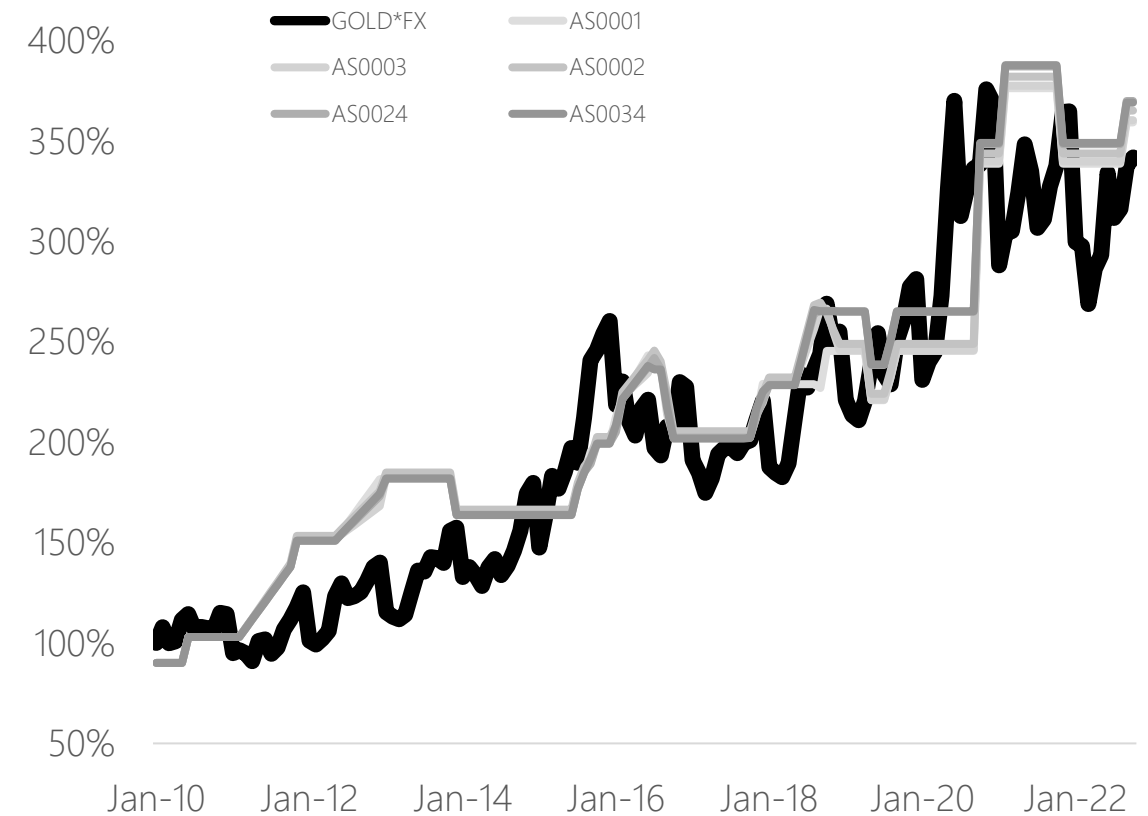
Pandora and Life's Price Evolution

Silver products prices changes comparison, [%]



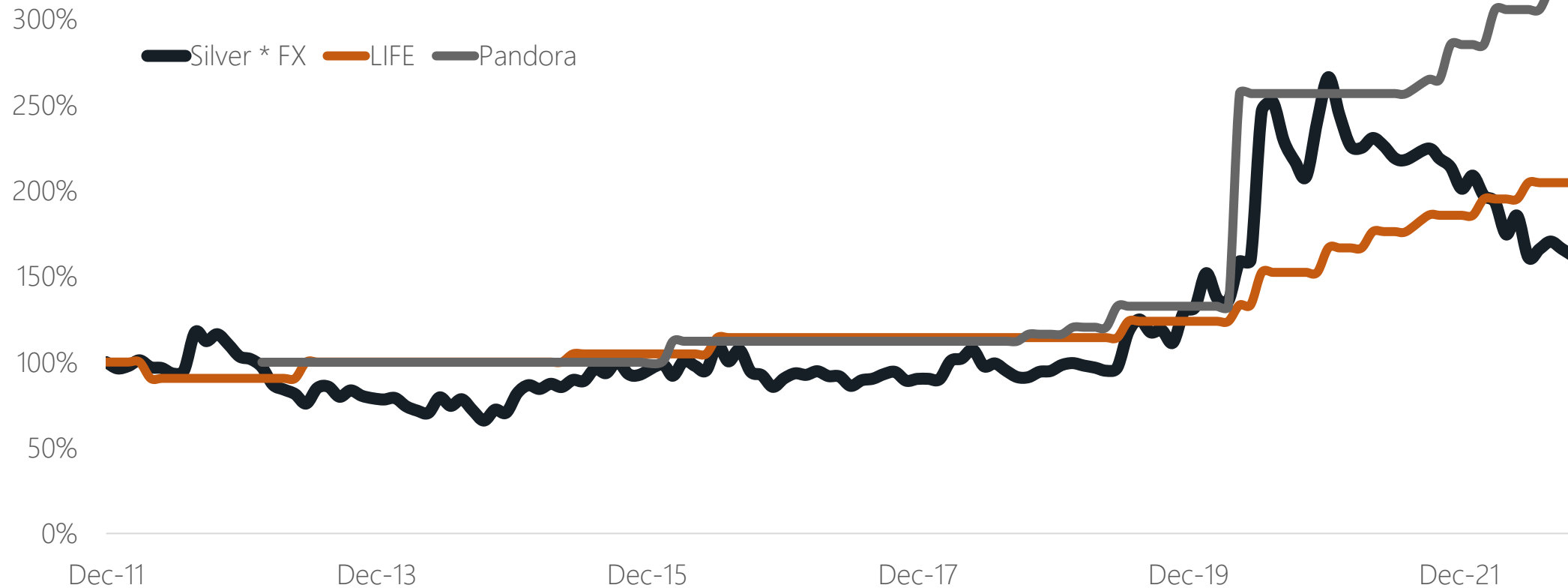
Mom and Pop Players Price Evolution

Casa das alianças products and 5 month lagged gold price Evolution, [%]



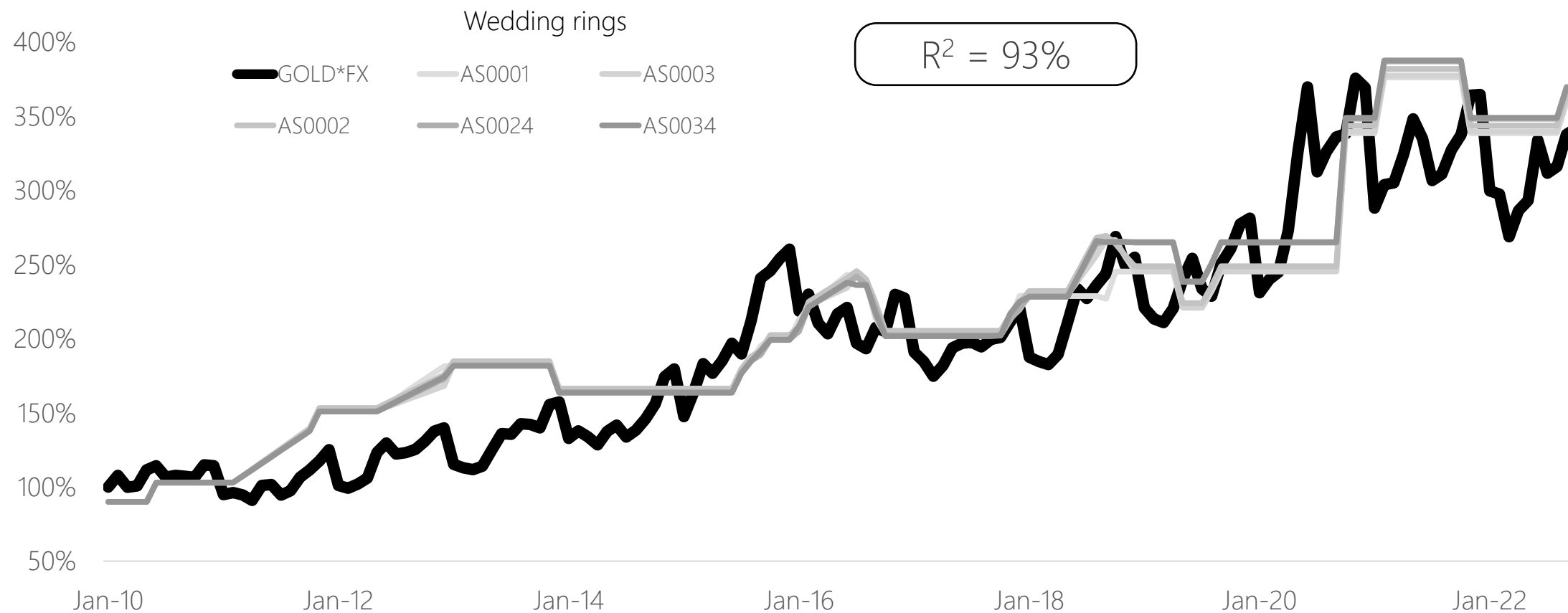
Appendix AT- Historical Price Analysis

Life, Pandora and silver prices evolution. Not lagged.



Appendix AT- Historical Price Analysis

Casa das Alianças historical price evolution with 5M lagged gold prices evolution



Appendix AU – Country Adjusted Multiples - I

Company Name	P/E	EPS growth	ROE
Grupo Soma	15.9	17.3%	7.4%
Arezzo	19.3	23.1%	20.6%
LVMH	22.1	13.0%	25.6%
Kering	15.8	13.9%	25.4%
Hermes Internacional	43.8	16.9%	27.2%
Brunello Cucinelli	47.0	21.5%	21.5%
Hugo Boss	15.8	24.9%	26.6%
Chow Tai Fook Jewellery	14.8	15.0%	15.6%
Luk Fook	5.9	17.7%	16.9%
Peers Median	15.9	17.3%	21.5%
Country Adjusted Median	12.3	17.3%	21.5%
Vivara 2026E	11.5	15.5%	22.4%

Company Name	EV/EBITDA	EBITDA growth	ROIC
Grupo Soma	15.9	54.2%	15.5%
Arezzo	19.3	19.9%	29.4%
LVMH	22.1	15.5%	20.1%
Kering	15.8	18.1%	68.7%
Hermes Internacional	43.8	9.7%	20.2%
Brunello Cucinelli	47.0	12.0%	26.6%
Hugo Boss	15.8	15.7%	9.7%
Chow Tai Fook Jewellery	14.8	17.8%	15.6%
Luk Fook	5.9	18.8%	16.9%
Peers Median	15.9	17.8%	20.1%
Country Adjusted Median	8.3	17.8%	20.1%
Vivara 2026E	8.0	13.7%	19.5%

Appendix AU – Country Adjusted Multiples - II

P/E

	(A) CRP	(B) BrazilCRP-CRP	(C) P/E	(D) (P/E)^-1	(E) B + D	(F) 1/E	
Grupo Soma	4.21%	0.00%	15.9		6.3%	6.3%	15.9
Arezzo	4.21%	0.00%	19.3		5.2%	5.2%	19.3
LVMH	0.59%	3.62%	22.1		4.5%	8.1%	12.3
Kering	0.59%	3.62%	15.8		6.3%	10.0%	10.0
Hermes	0.59%	3.62%	43.8		2.3%	5.9%	16.9
Brunello Cucinelli	3.07%	1.14%	47.0		2.1%	3.3%	30.6
Hugo Boss	0.00%	4.21%	15.8		6.3%	10.5%	9.5
Chow Tai Fook Jewellery	0.84%	3.37%	14.8		6.8%	10.1%	9.9
Luk Fook	0.84%	3.37%	5.9		17.1%	20.5%	4.9

EV/EBITDA

	(A) CRP	(B) BrazilCRP-CRP	(C) EV/EBITDA	(D) (EBIT/EBITDA)/(EV/EBITDA)	(E) B + D	(F) (EBIT/EBITDA)/(E)	
Grupo Soma	4.21%	0.00%	10.6		7.90%	7.90%	10.6
Arezzo	4.21%	0.00%	13.8		5.79%	5.79%	13.8
LVMH	0.59%	3.62%	13.1		6.15%	9.77%	8.3
Kering	0.59%	3.62%	9.5		8.49%	12.11%	6.7
Hermes	0.59%	3.62%	26.5		3.36%	6.98%	12.7
Brunello Cucinelli	3.07%	1.14%	16.7		2.99%	4.13%	12.1
Hugo Boss	0.00%	4.21%	6.0		8.10%	12.31%	4.0
Chow Tai Fook Jewellery	0.84%	3.37%	10.8		8.02%	11.39%	7.6
Luk Fook	0.84%	3.37%	3.6		24.00%	27.37%	3.2

Appendix AV – Tornado analysis

We sensitized important premises and measure the value of Vivara's Tax benefits

With a Tornado Analysis we sensitized important premises...

Tornado Analysis, [BRL]

