Tenda

sua próxima conquista

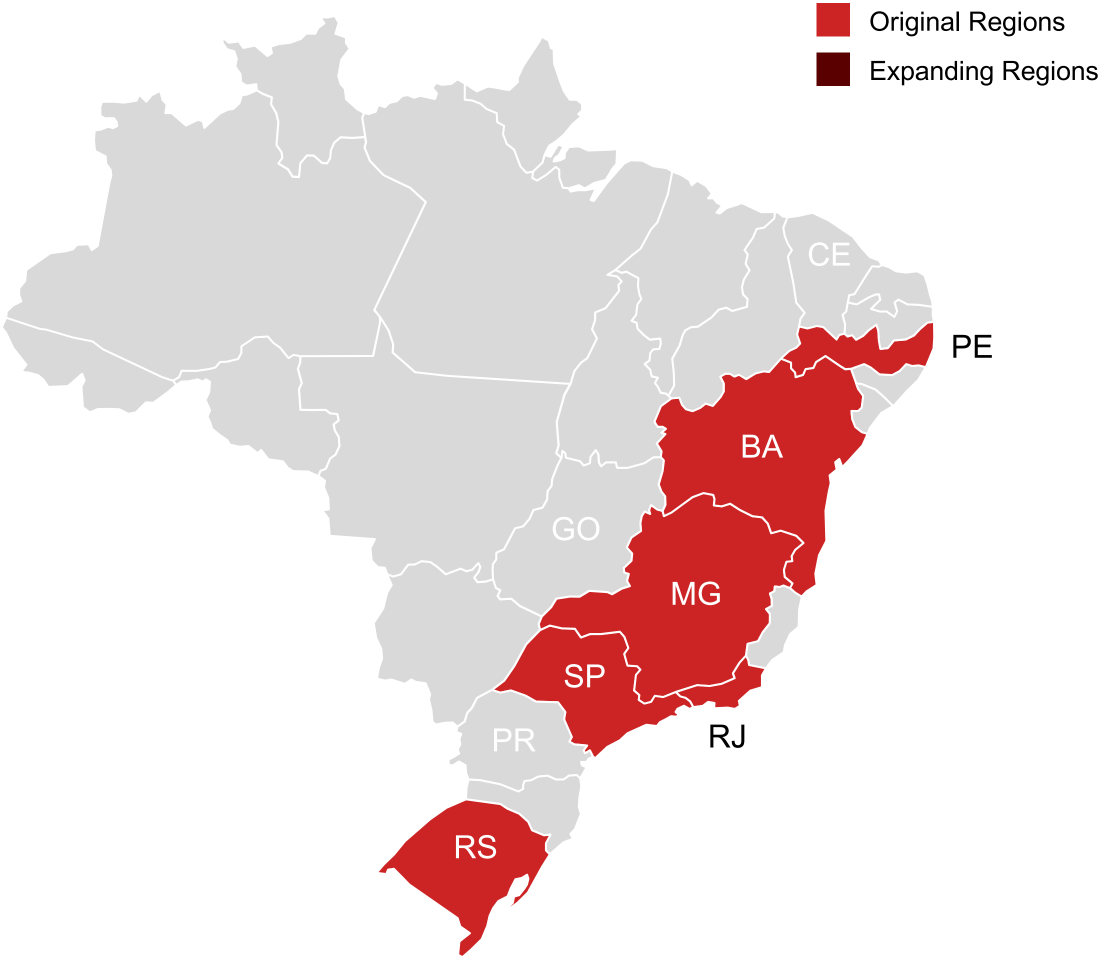
# CFA Research Challenge

FUCAPE

BUSINESS SCHOOL

# First outlook

## Operating Regions

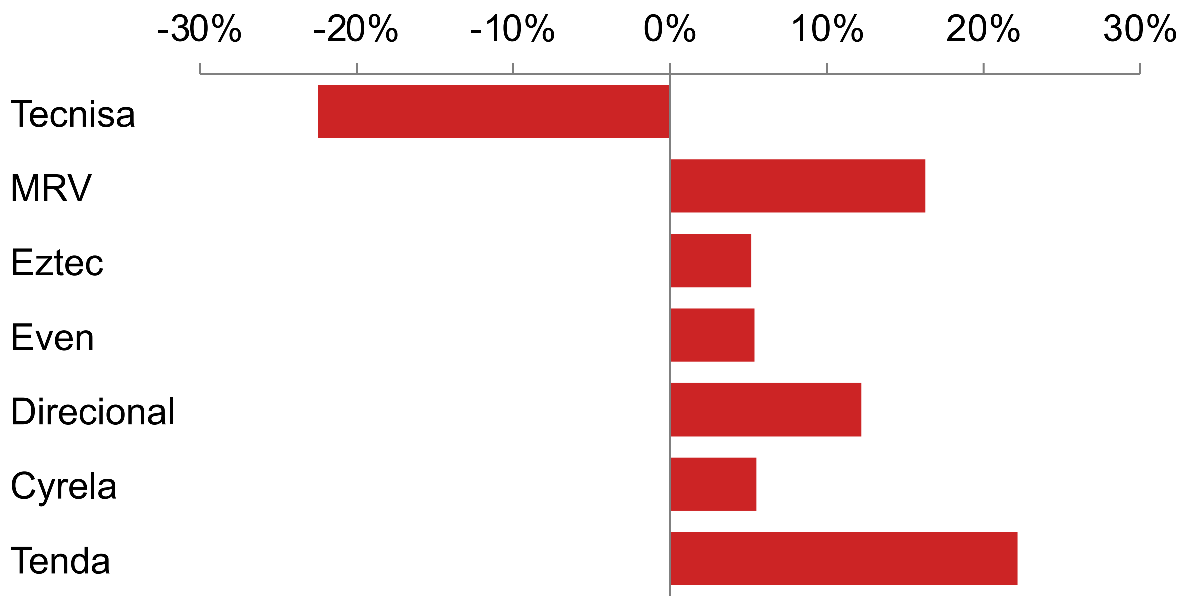



## Units Released

3 SKU's

~17.900 Units released in 2019

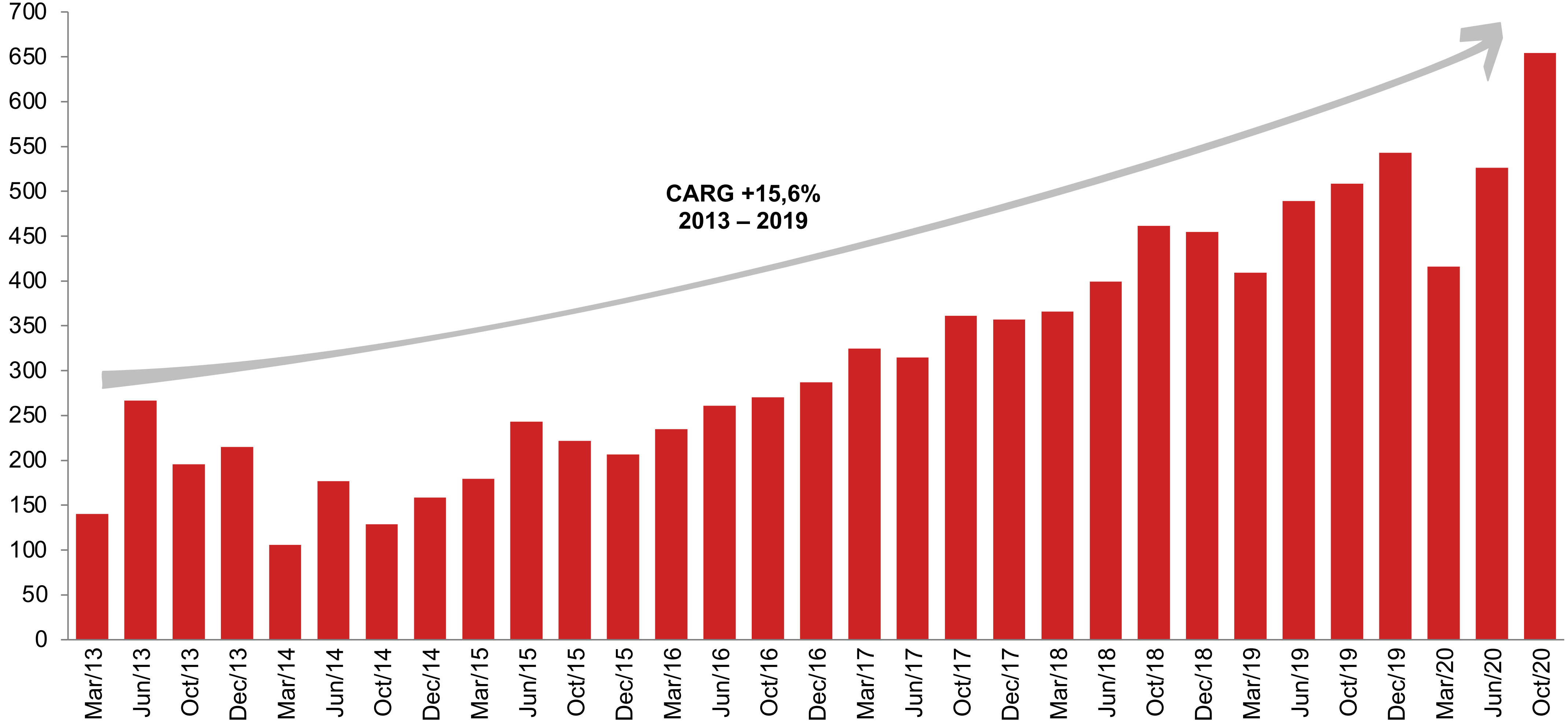
**ROIC 2019**
%






*Source: Refinitiv and Company's IR*

## Net Revenue Evolution




**Hired Releases**

**Passed on sales**

**Own Stores**



*Soucre: Company's IR*

# ESG

# Facing challenges up ahead

## Working on it

Environmental Legislation ✓

Policy Energy Efficiency ✗

Policy Sustainable Packaging

Policy Environmental Supply Chain

Resource Reduction Targets

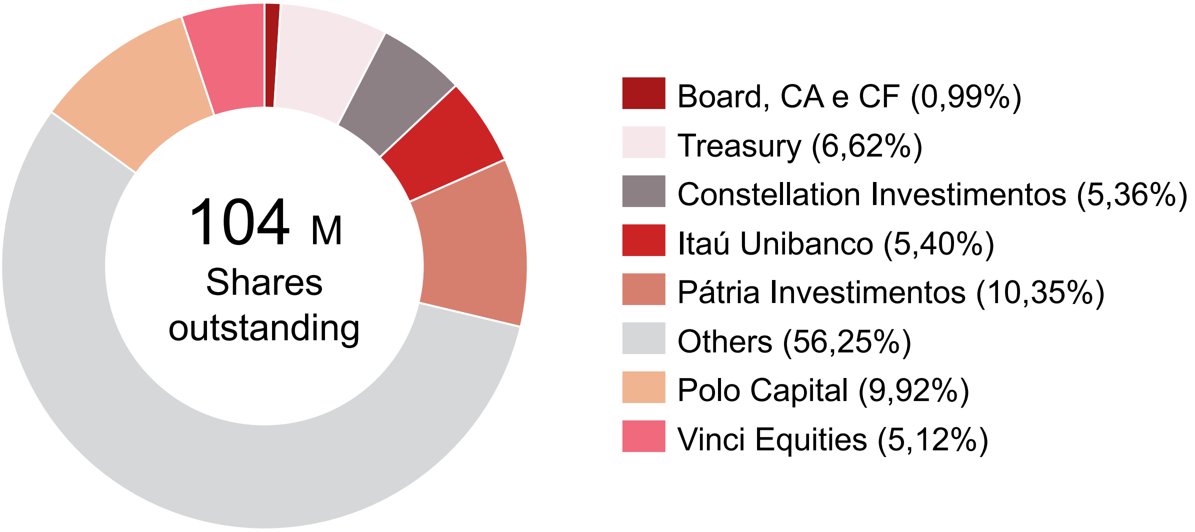
Resource Reduction Policy

Sustainability Report

## Shaping Governance…

**Ownership Structure**

%



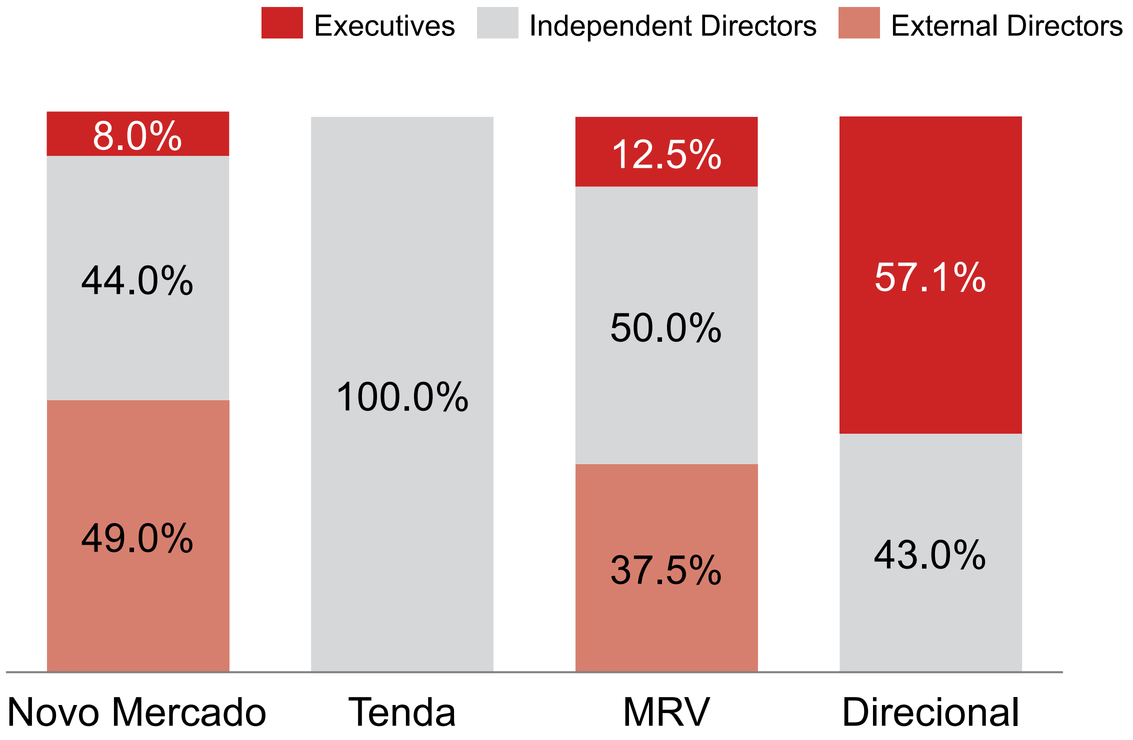



*Source: Company's IR*

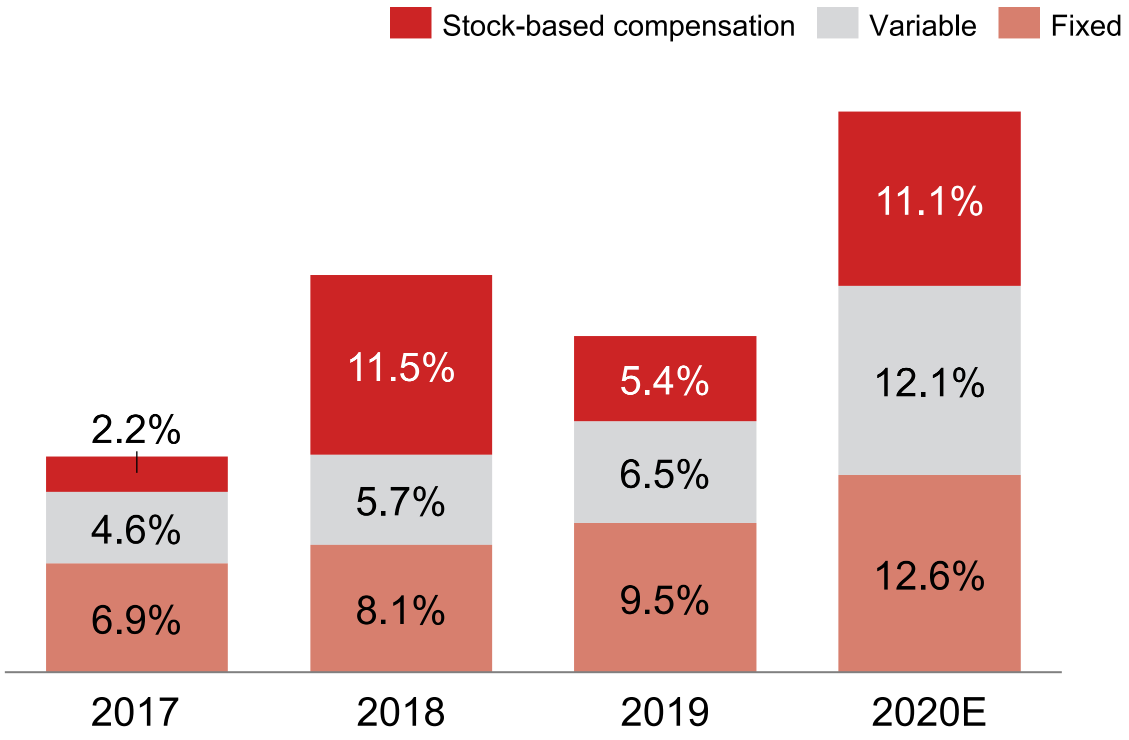
Facing challenges up ahead

**… and sharping Governance**

**Composition of the Board of Directors**
%




**Executive Committee Compensation**
BRL [mn]



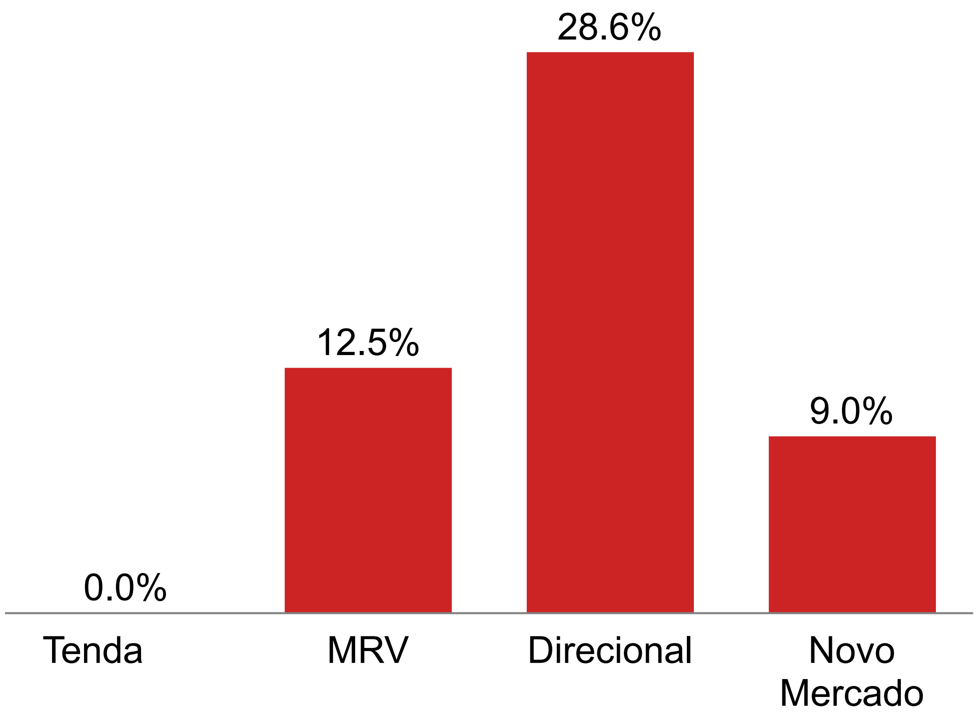



*Source: Company's IR and KPMG*

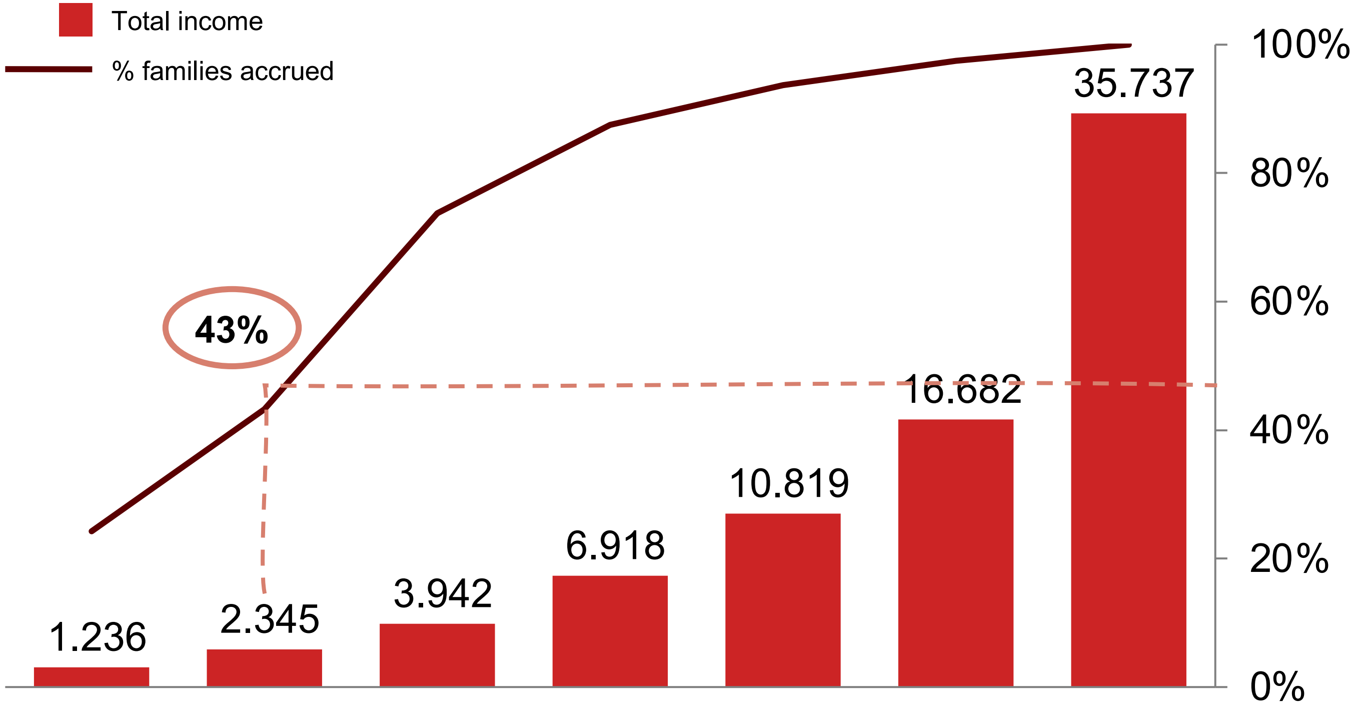
# Facing challenges up ahead

## Social

### Women in the Board of Directors
%




### % Families vs Income
BRL






*Source: Company's IR and IBGE, Family Budget Search 2018*

# Facing challenges up ahead

## Social

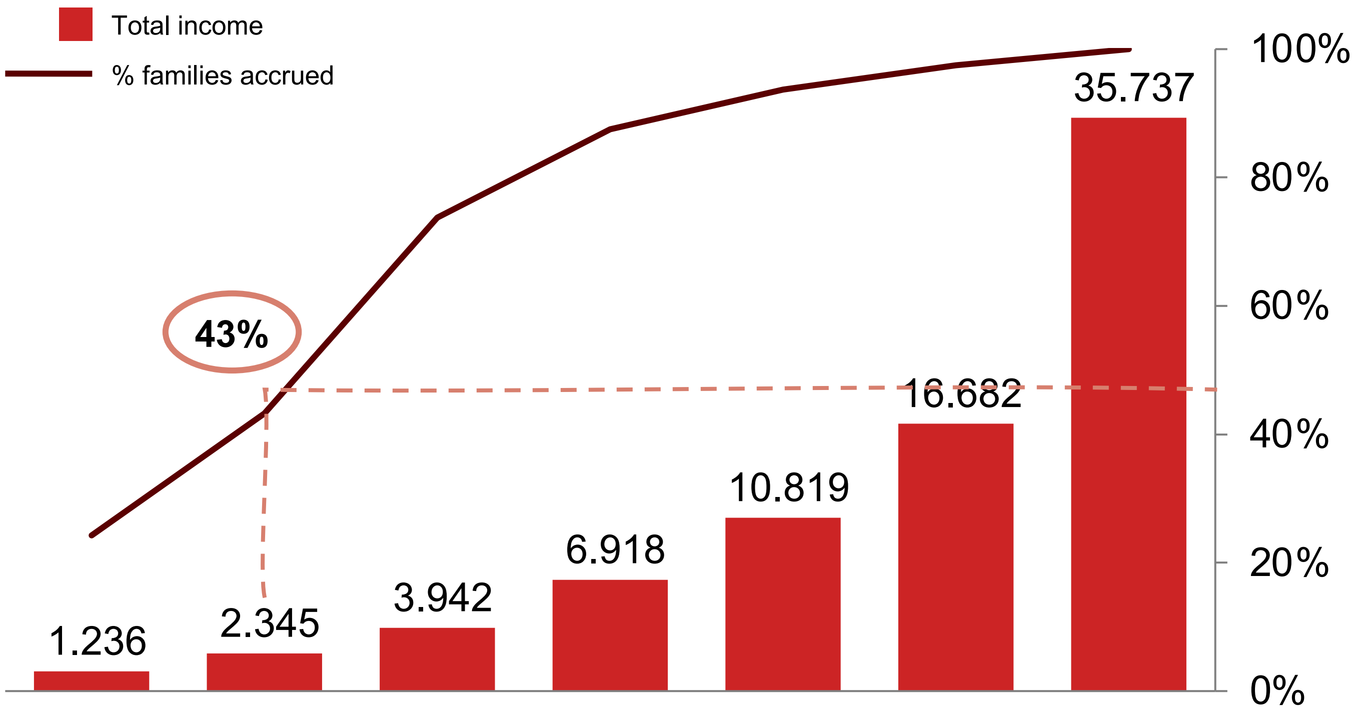
**65%** Directly Employed

**100%** Prejects Delivered within schedule

**Risk** Monitoring Standards

**ESG** combined Score: **D-**

### % Families vs Income
BRL






*Source: Company's IR, IBGE, Family Budget Search 2018 and Refinitiv*

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# Overall

# So, is it time to invest in Tenda?

## Building a Bright Future

**BUY**

Current Price
(30/11/2020)
**R$ 28,60**

Target Price
**R$ 45,00**

**Upside**
57,25%

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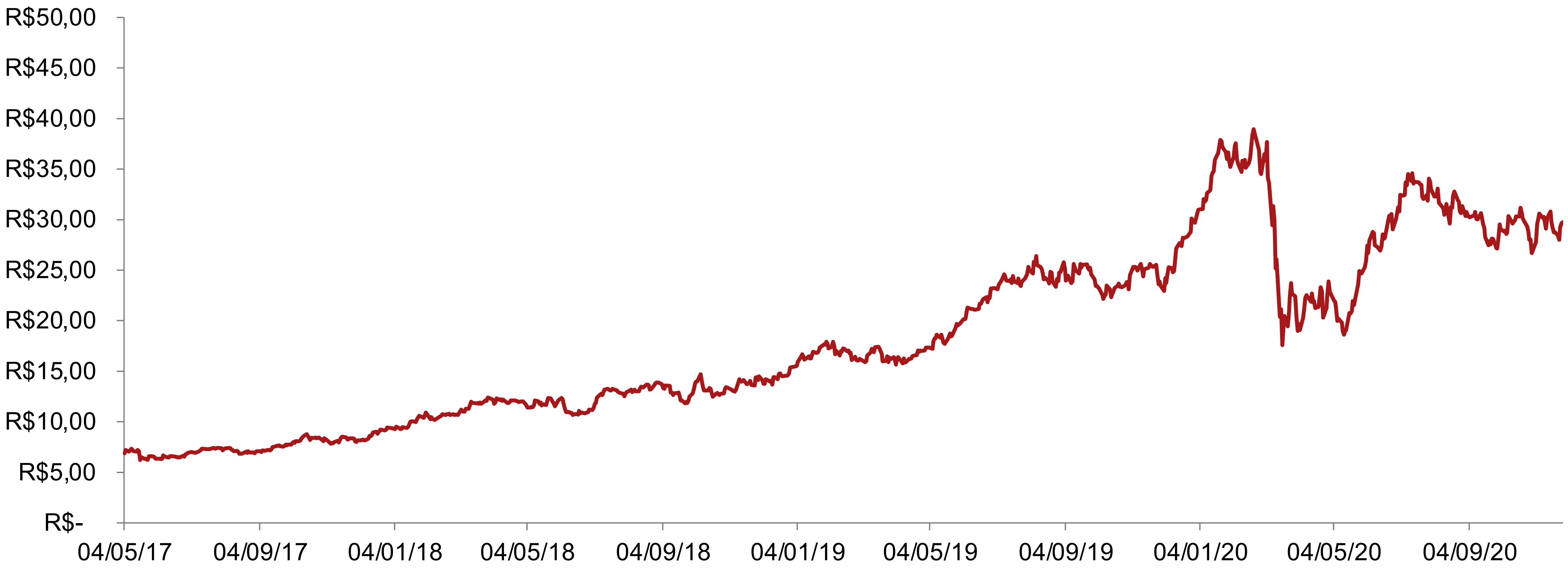
sua próxima conquista




*Source: Refinitiv*

# Four foundations for the thesis

## Investment Thesis

**Promising Industry**

**Demand Perspective**

**Operational Efficiency**

**Offsite Expansion**

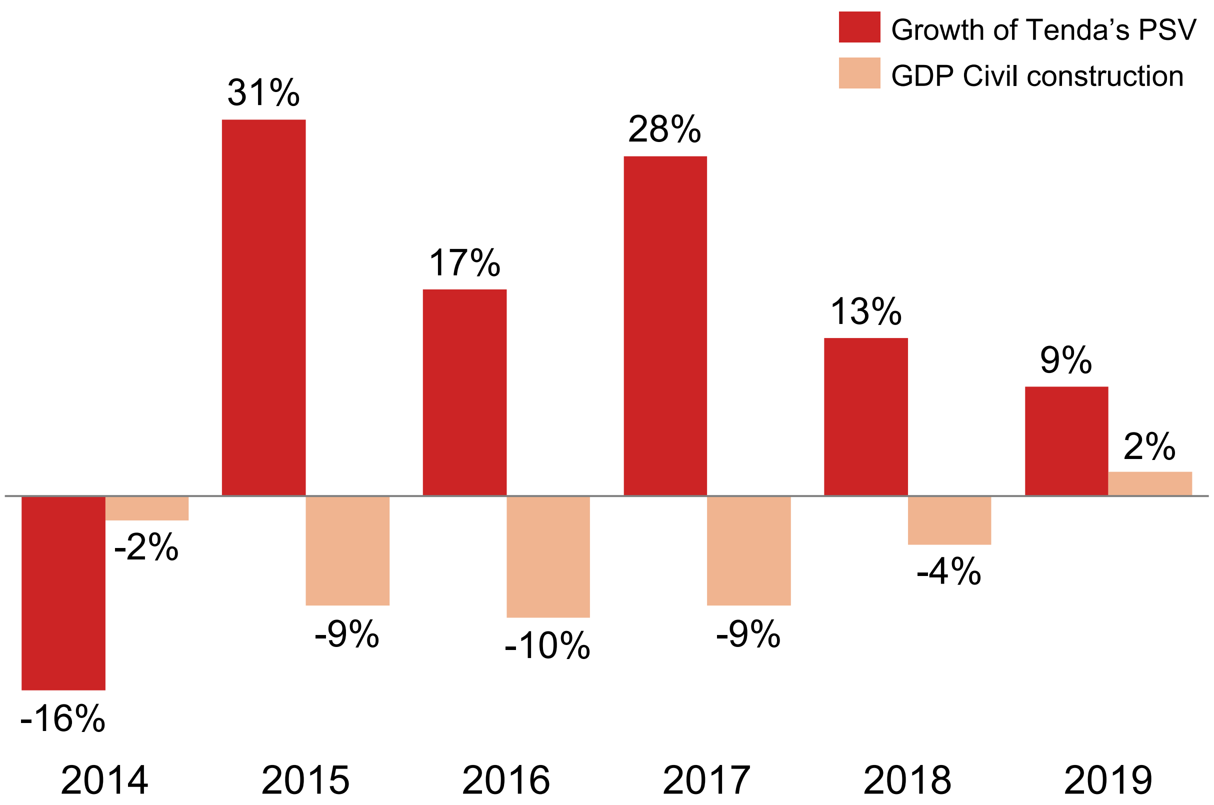
# Promising Industry

# Historical resilience

## Sector Resilience

### GDP Civil Construction vs Growth of Tenda's PSV

%




## Programa Casa Verde e Amarela

PROGRAMA
CASA VERDE
E AMARELA

PVCA will finance 1,600 houses;

regularize 2 million homes;

and renovate 400,000 by 2024

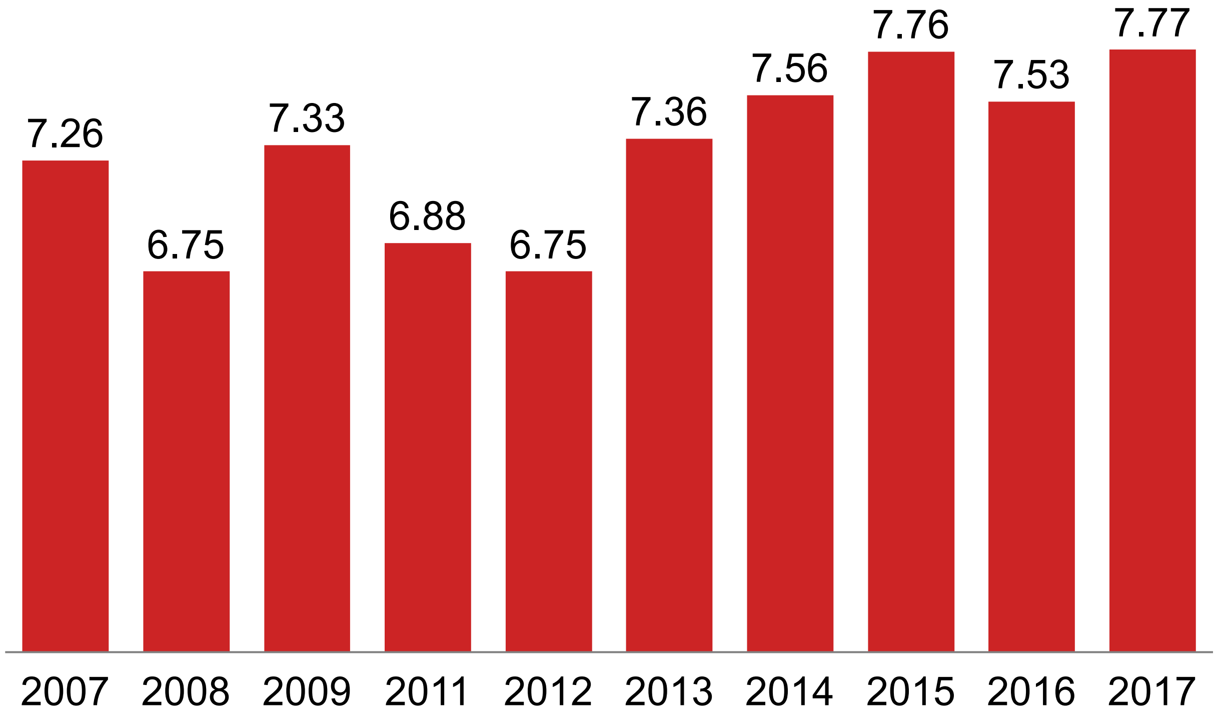


*Source: Federal Government, Company's IR, Sistema de Contas Nacionais Trimestrais – SCNT*

# Great tailwind in the next years

## High level of housing deficit

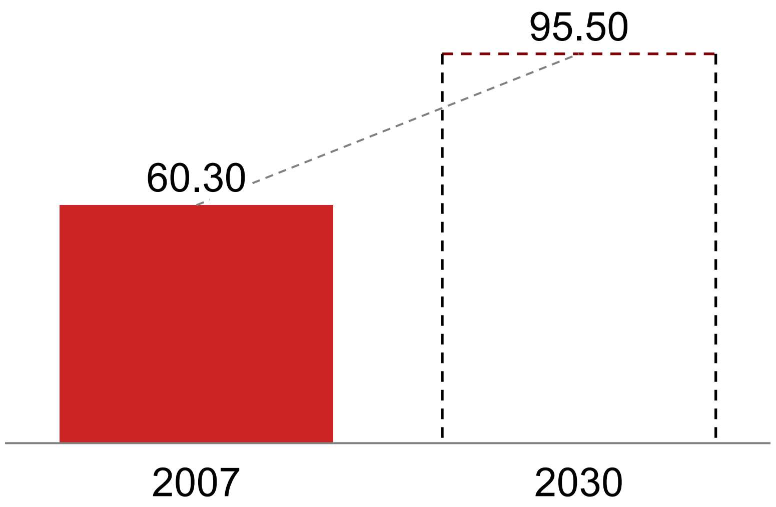
**Evolution of the housing deficit**
[mn]




## Formation of new families

58% new family growth

**Forecast of the number of Brazilian families**
[mn]



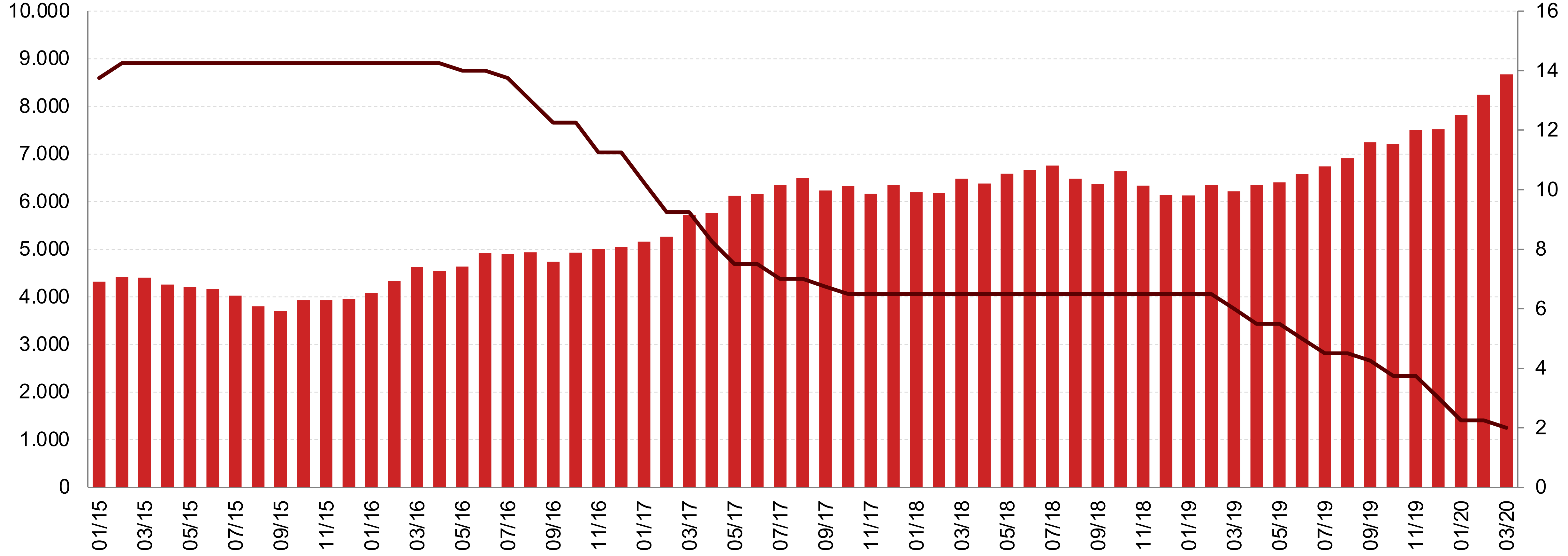



*Source: FGV, Ernest Young*

# Further support from credit perspective

## Access to Credit

**Moving averages sales units (BRL) vs Target interest rate (%)**



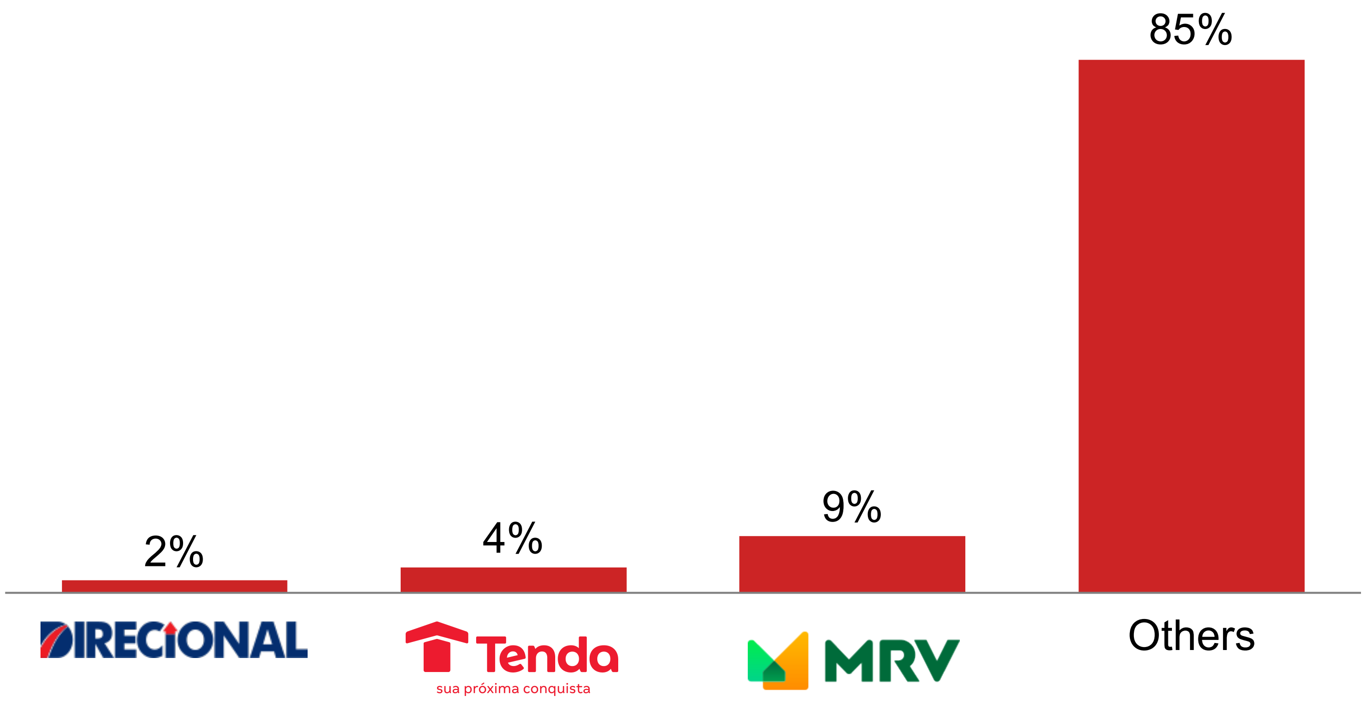



*Source: Central Bank, Abrainc, Fipe*

# Economies scales in sight

## Market spraying

### MCMV Market Share (%) – Contracted units




## Market Concentration

### Herfindahl-Hirschman Index

1,05% Herfindahl-Hirschman Index



*Source: MRV's IR, Companies*

# Different Demand Perspective

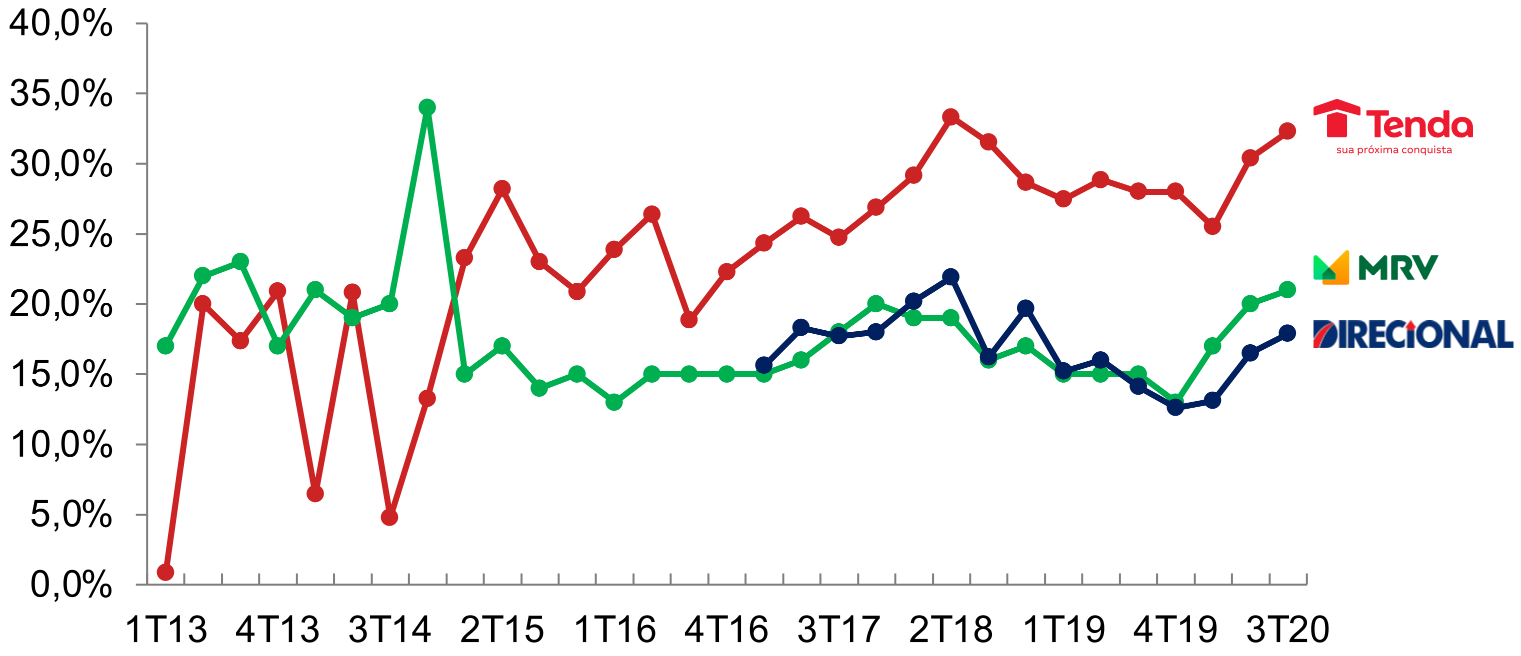
# Demand Perspective

## Demand Perspective

+1000 units demanded per year

## High and Security VSO

From 2015 to 2019, Tenda reported an average quartely VSO of 26% with 3.5% of standard deviation

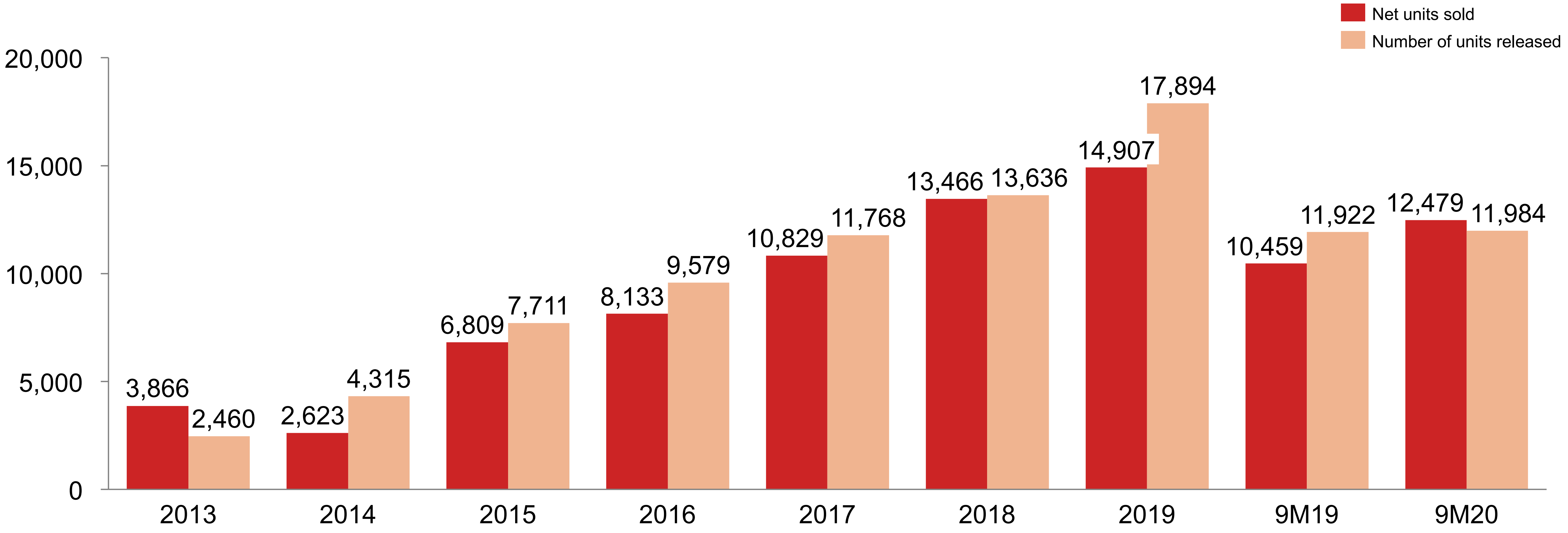





*Source: Company's IR*

# Mature and robust expansion

## Units Released and Sold




**Abnormal CAGR**



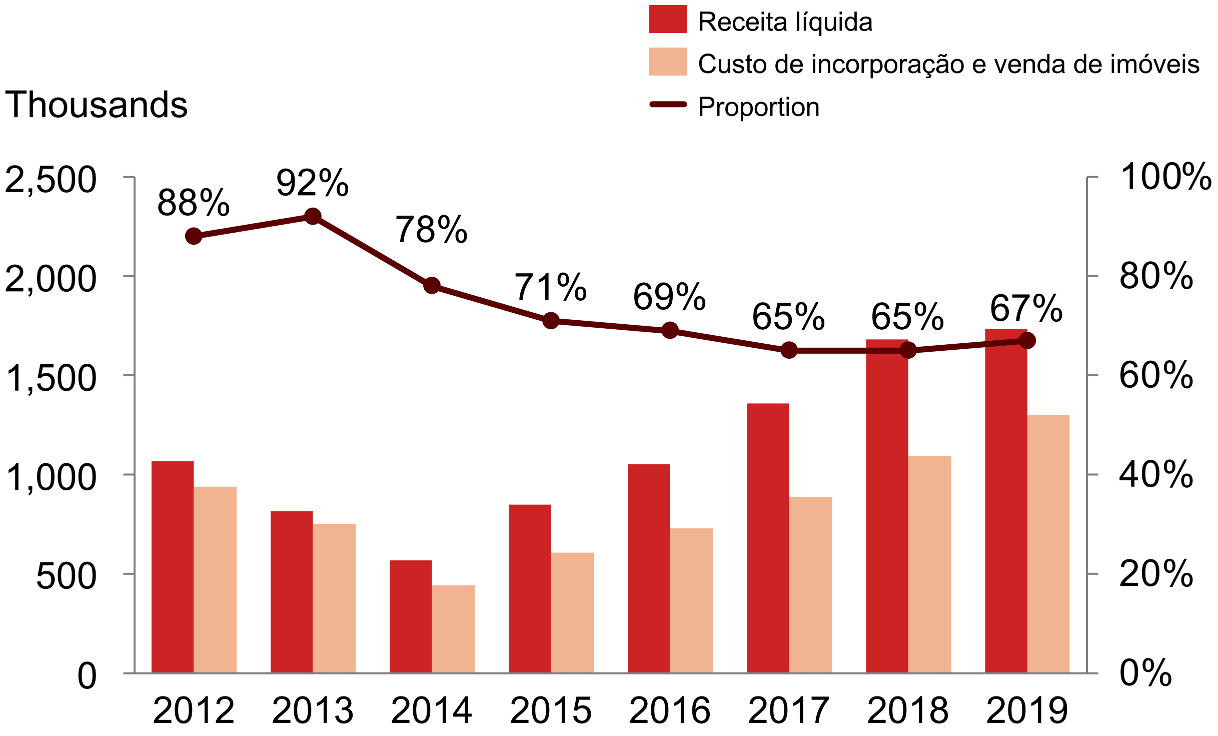
*Source: Company's IR*

# Operational Efficiency

# Efficiency call is paying-off

**Result of new construction method**

**Cost of construction and real estate sales over Net Revenue**




**Reduce by 21 b.p. from 2012 to 2019**

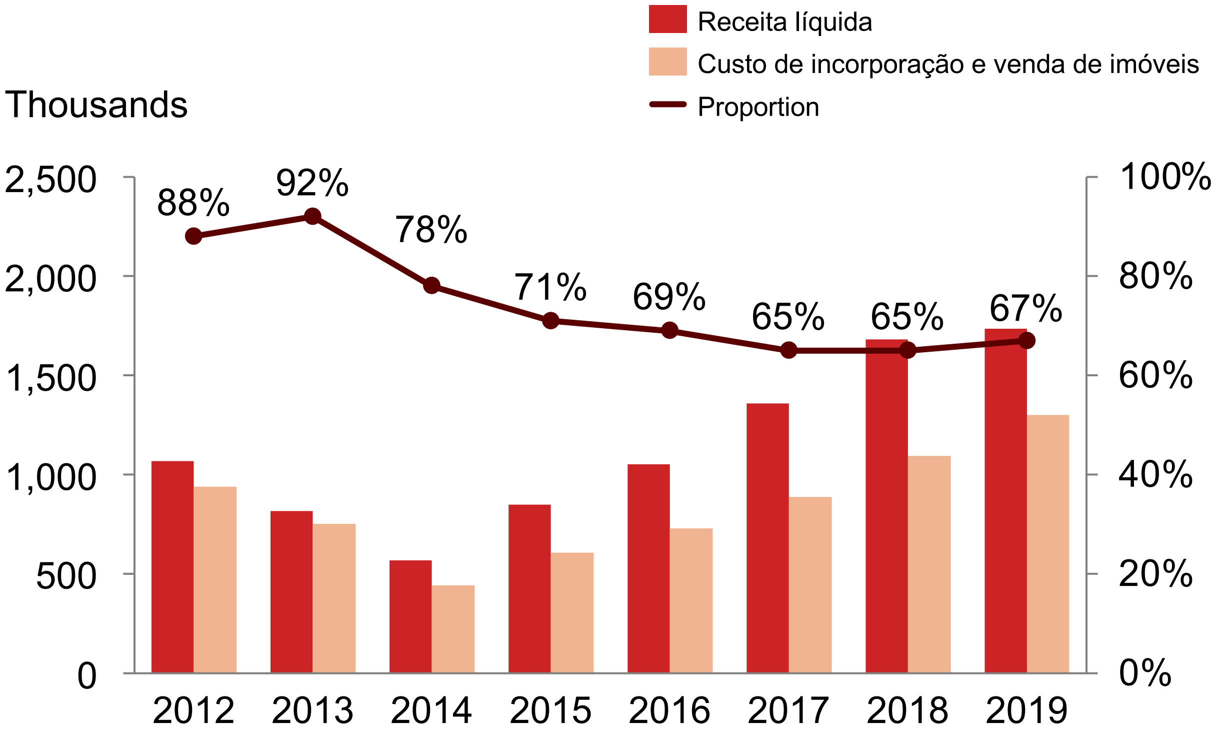


Source: Company's IR

# Efficiency call is paying-off

## Result of new construction method

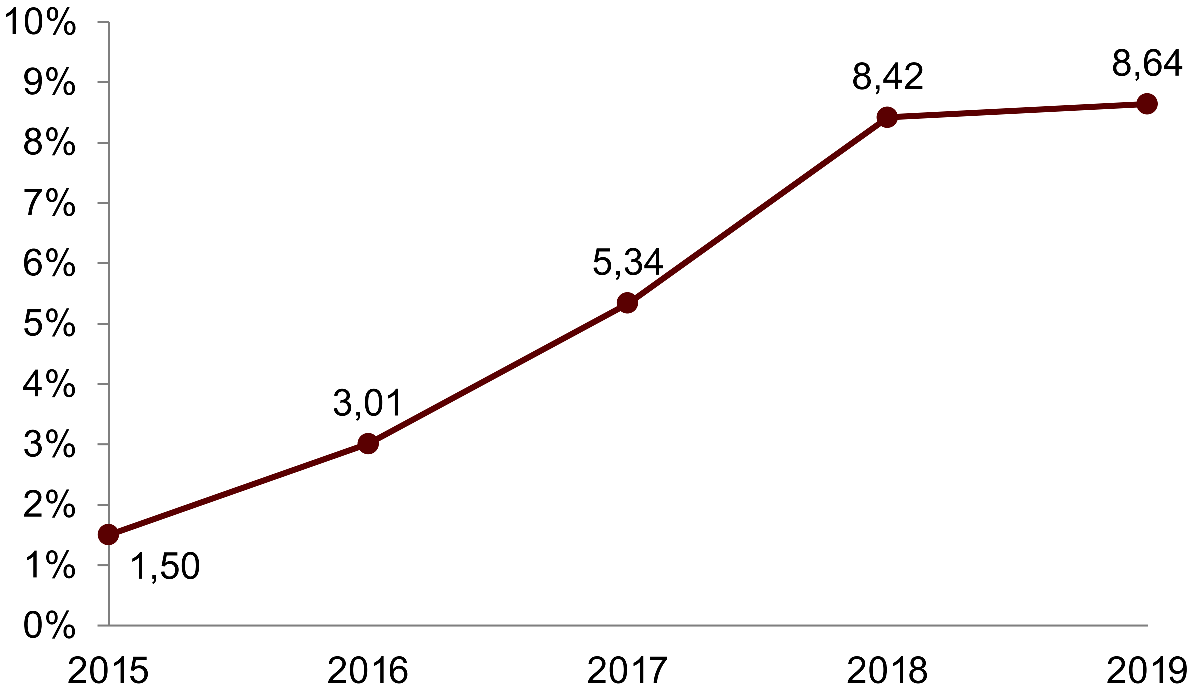
### Cost of construction and real estate sales over Net Revenue




**Reduce by 21 b.p. from 2012 to 2019**

## Operational Efficiency

### Return on Assets




**ROA's +7.1 b.p**

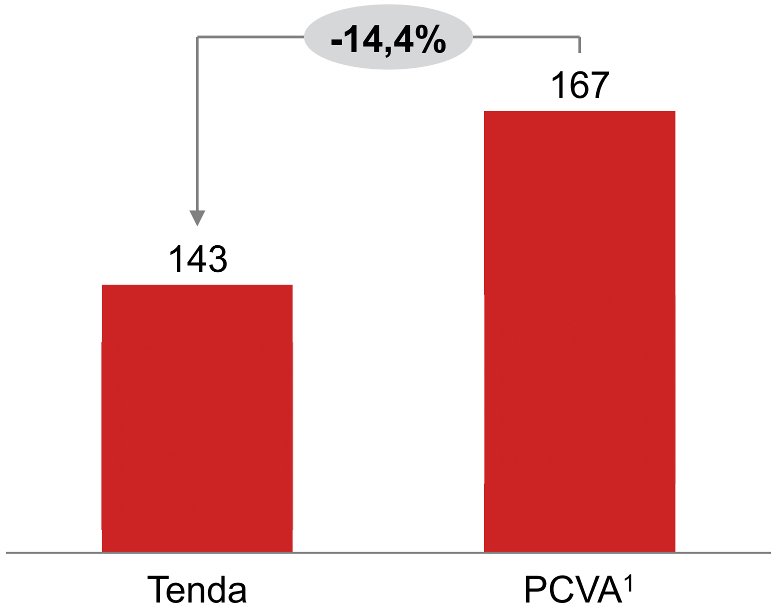


Source: Company's IR

# Efficiency call is paying-off

## Result of new construction method

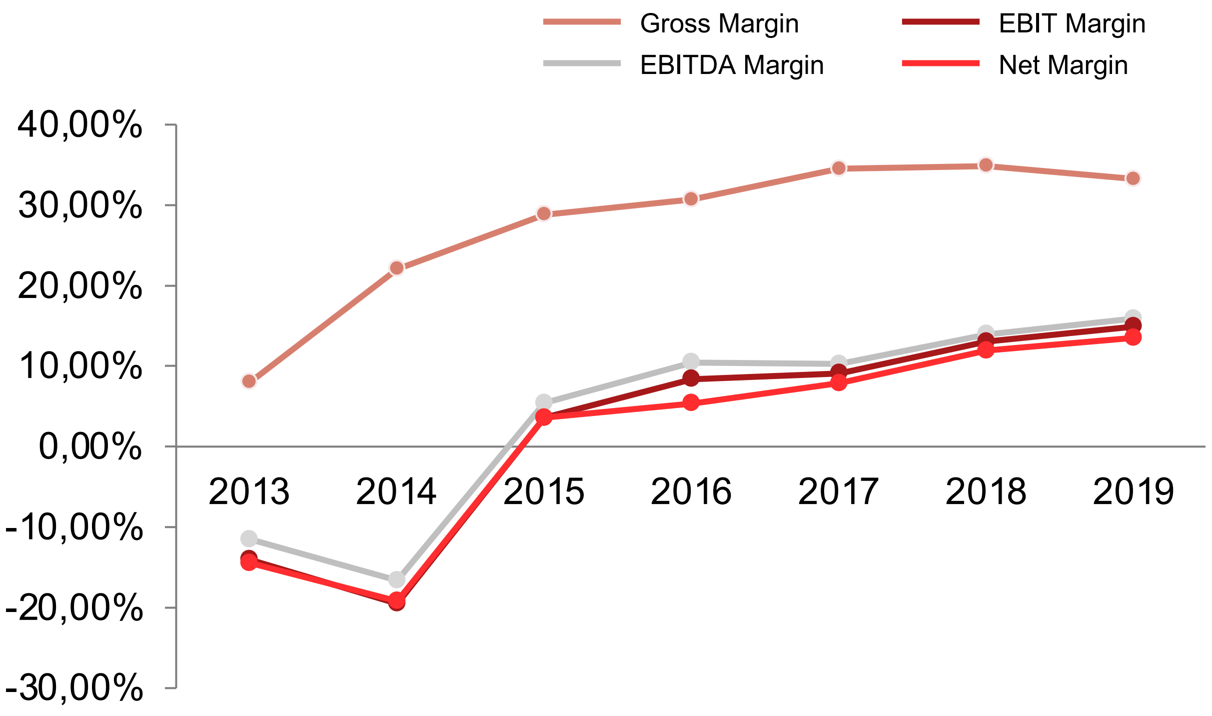
### Average price per released unit (BRL thousand)




**Low cost driven low prices**

## Operational Efficiency

### Profitability Margins




**About 5yr FY0 margins average among 10-principal open homebuilders, Tenda is 2º on gross margin and 4º on others**



*1. Weighted Avg Price Between MRV (100%) and Direcional (Only MCMV 2 and 3).* *Source: Company's IR*

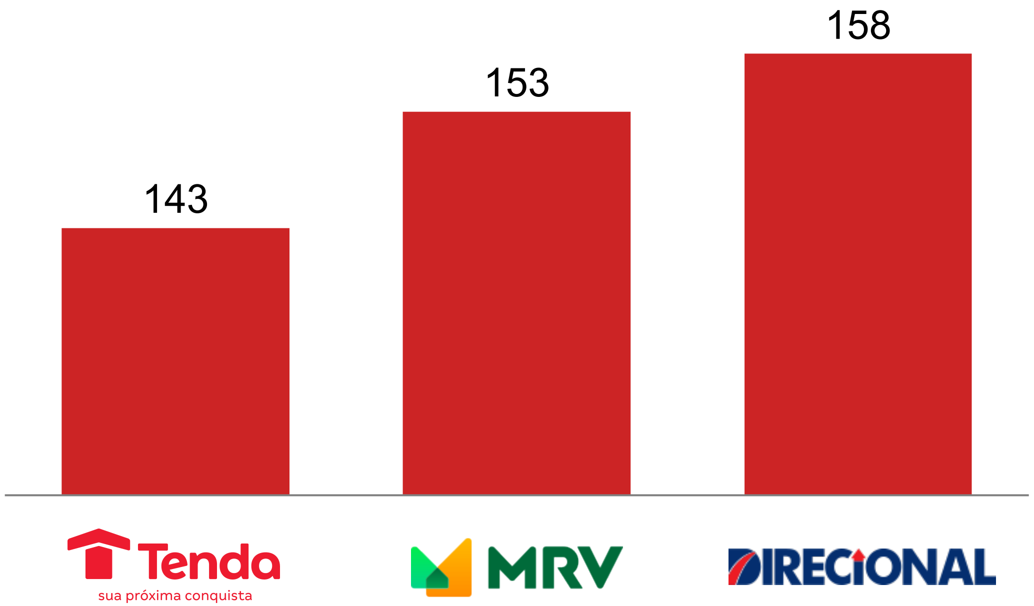
# But how does this helps Tenda?

# Audacious price strategy

## Consumer’s Purchase Decision


## Low price against peers

**Average price per released unit (BRL thousand)**




**Well positioned to face competition**



*1 Tenda and MRV, annual average from 2014 to 20192. Direcional, anual average from 2017 to 2019*

*Source: Companie’s IR*

# Offsite Expansion

# Searching a forgot population

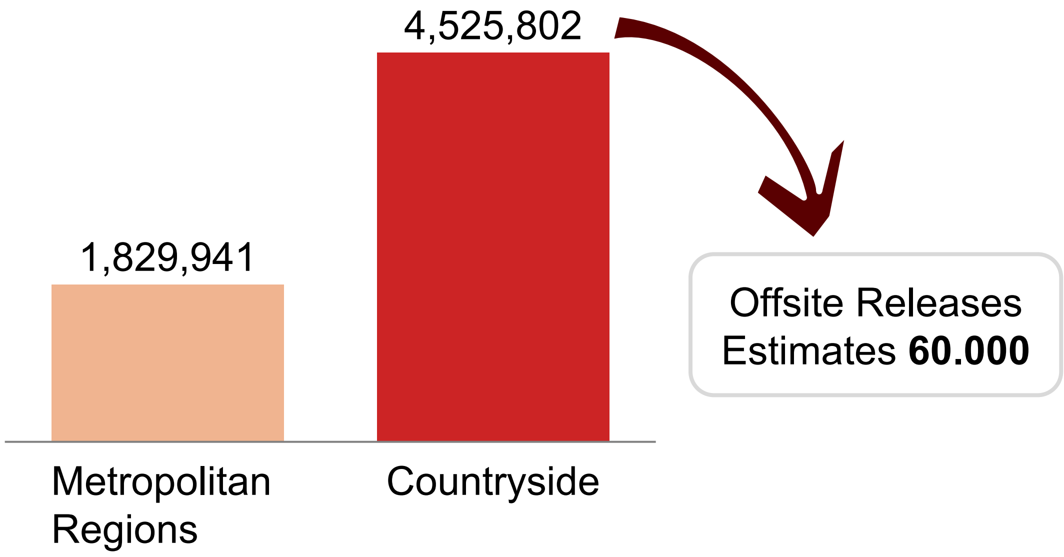
## New construction approach

### Wood frame method


**Better products with increased comfort**

## Potential Market

### Distribution by region – Housing deficit




**Conservative projected launches in relation to the potential market**

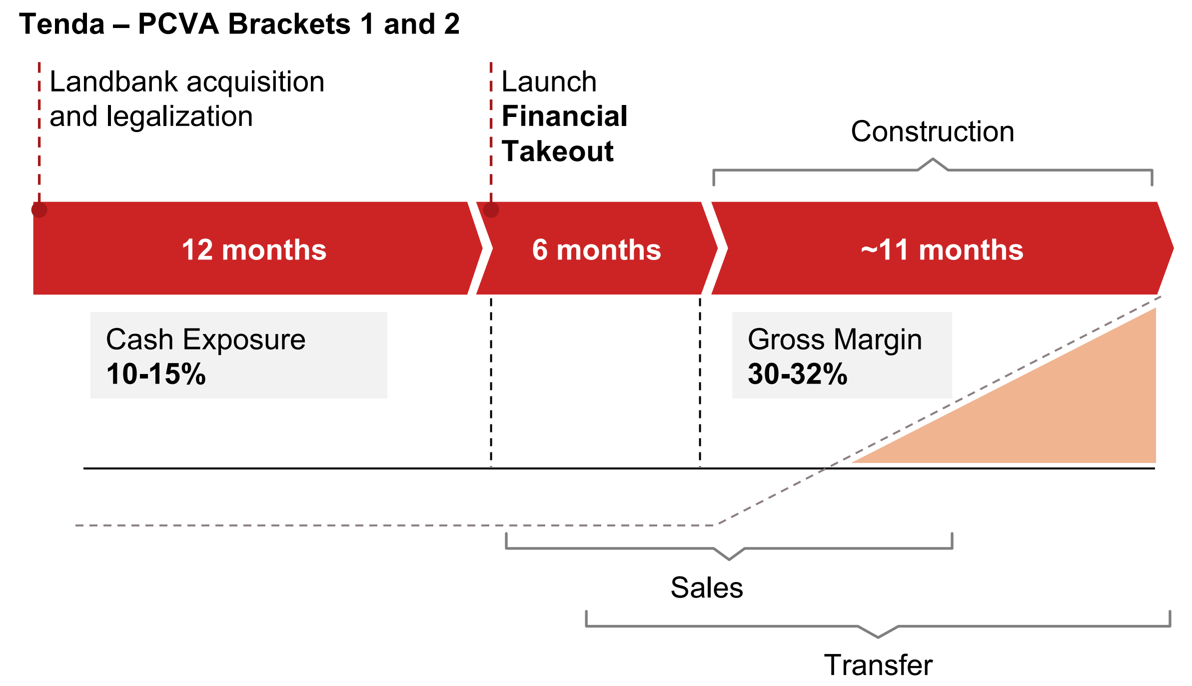


*Source: CBIC*

# Protected cash positioning

## Strong cash generation

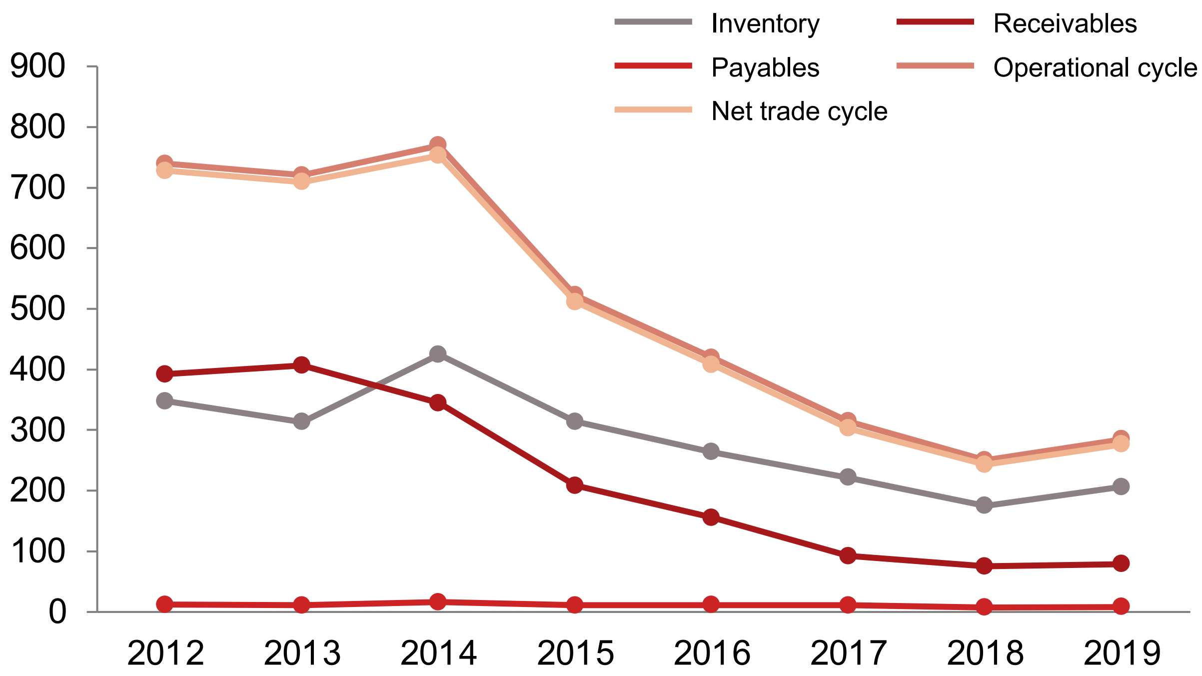
### Operational Cycle




**Sales structure protects the company's cash position**

## Activity metrics

### Average Activity Metrics (days)




**Huge increase in turnover ratios**



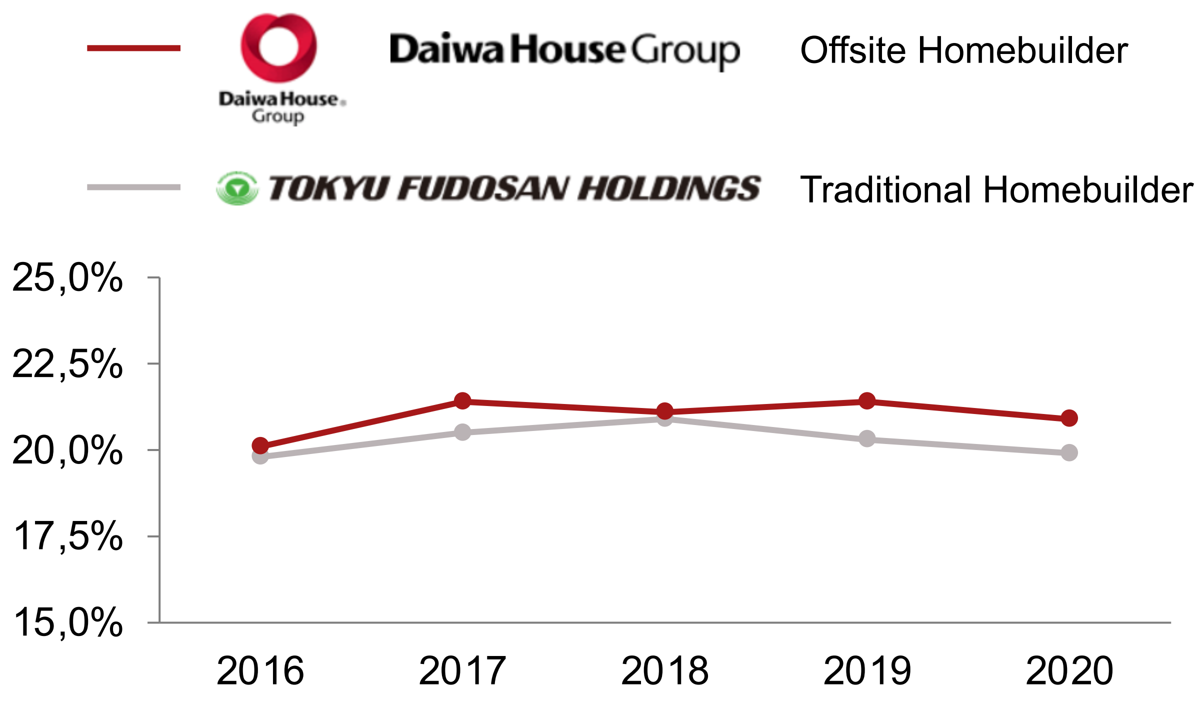
*Source: Company's IR and Team Estimates*

# Is the Offsite project a good idea?

# World Scenario

## Similar Margins

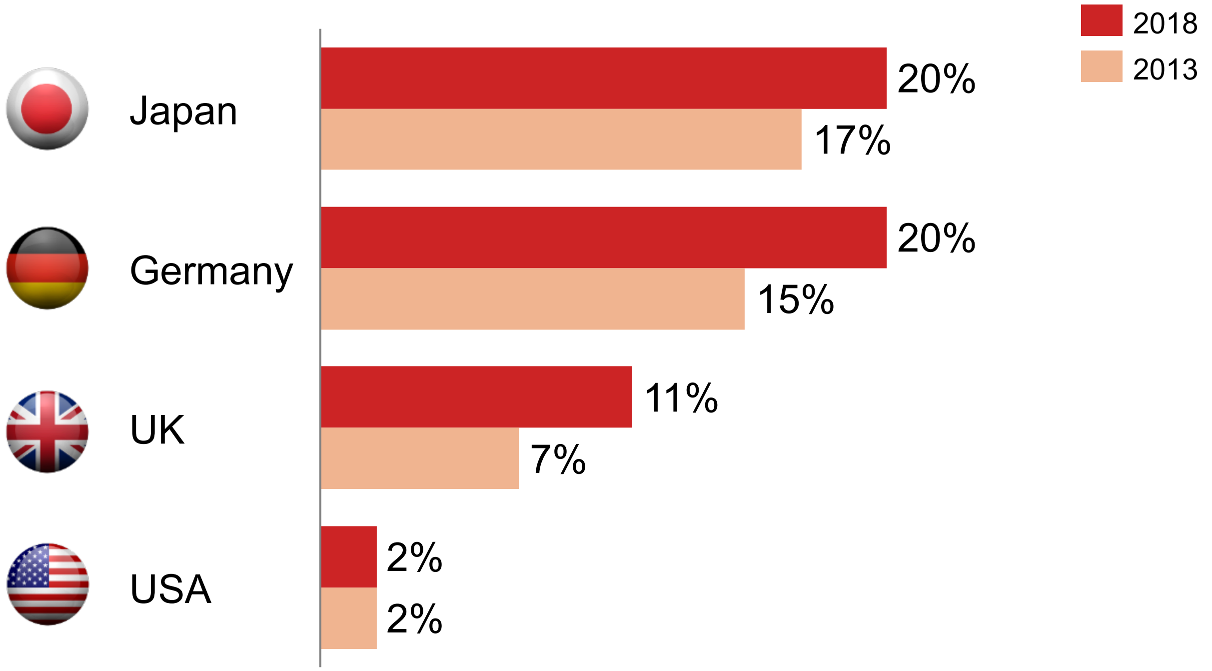
### Japanese players margins comparison




**In mature environments both construction strategies tend to have similar gross margins**

## International Matrix

### New homes built using offsite strategy [%]




**Widespread technique over developed markets**



*Source: Refinitiv and Boston Consulting Group*

# Valuation

# Revenue assumptions

## Revenue

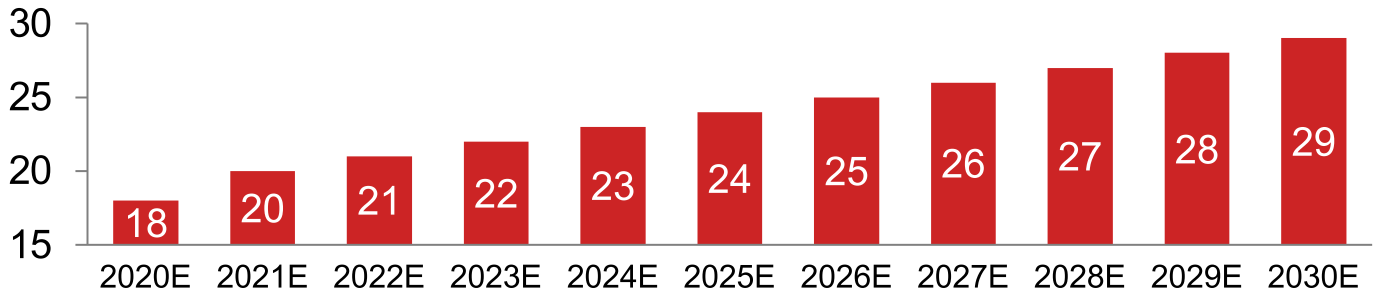
### Main assumptions

Traditional model units growing 1000 units/year

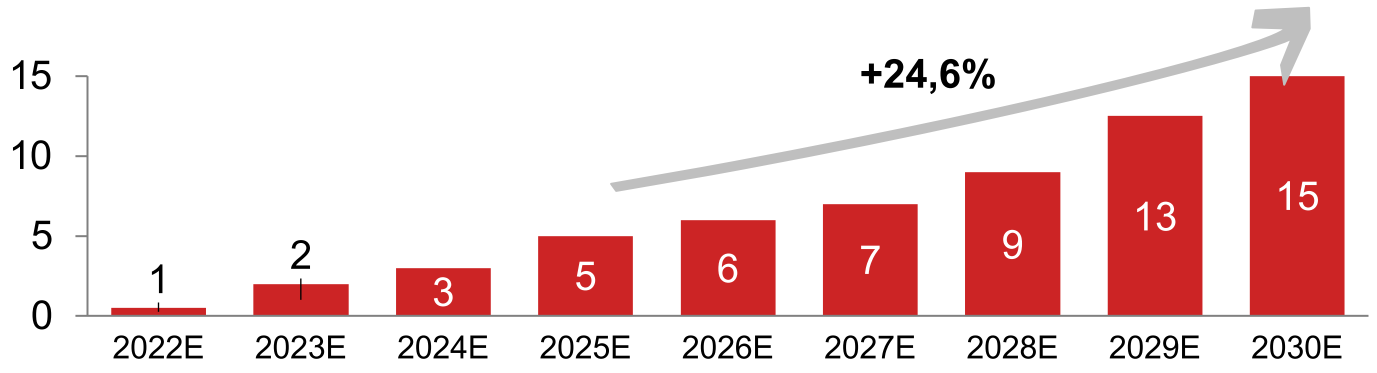
Unit price evolving in line with inflation

Offsite strategy to ramp-up by 2022

### Traditional model units projected




### Offside model units projected

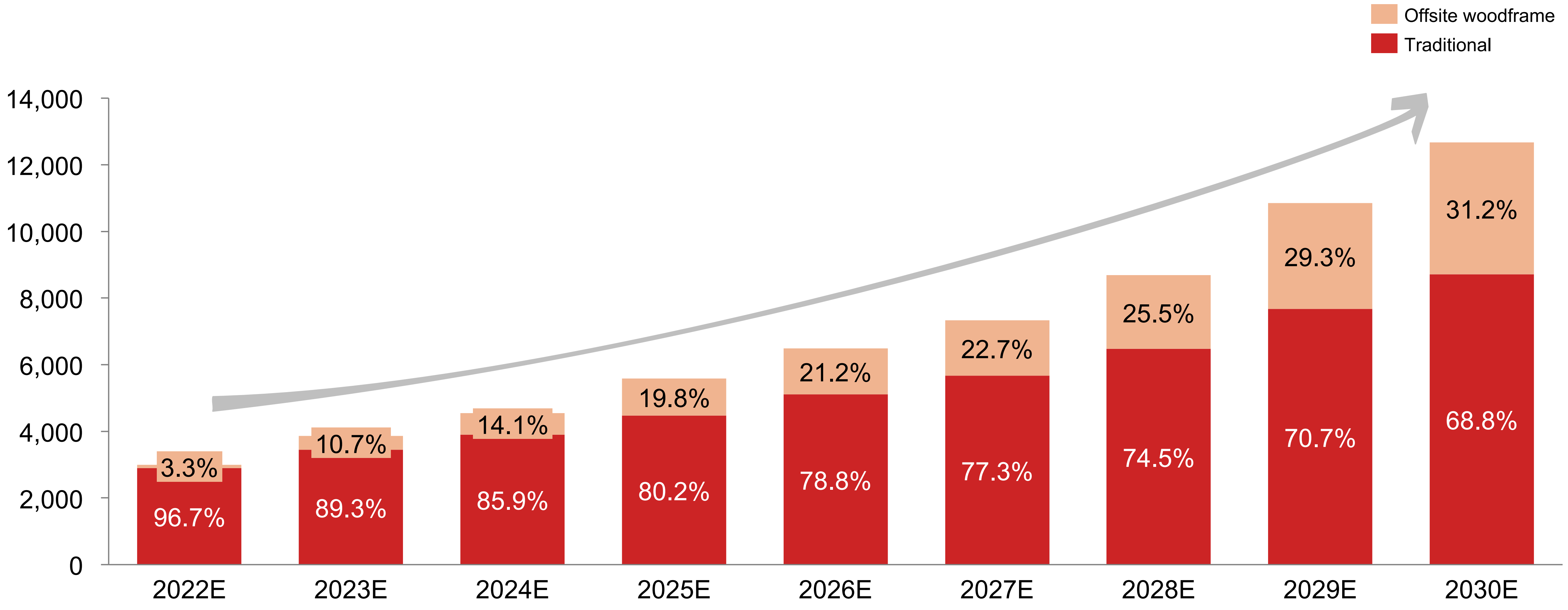





*Source: Team Estimates*

# Business lines division

## Revenue distribution per line of business






*Source: Team Estimates*

# Margins assumptions

**Margins**

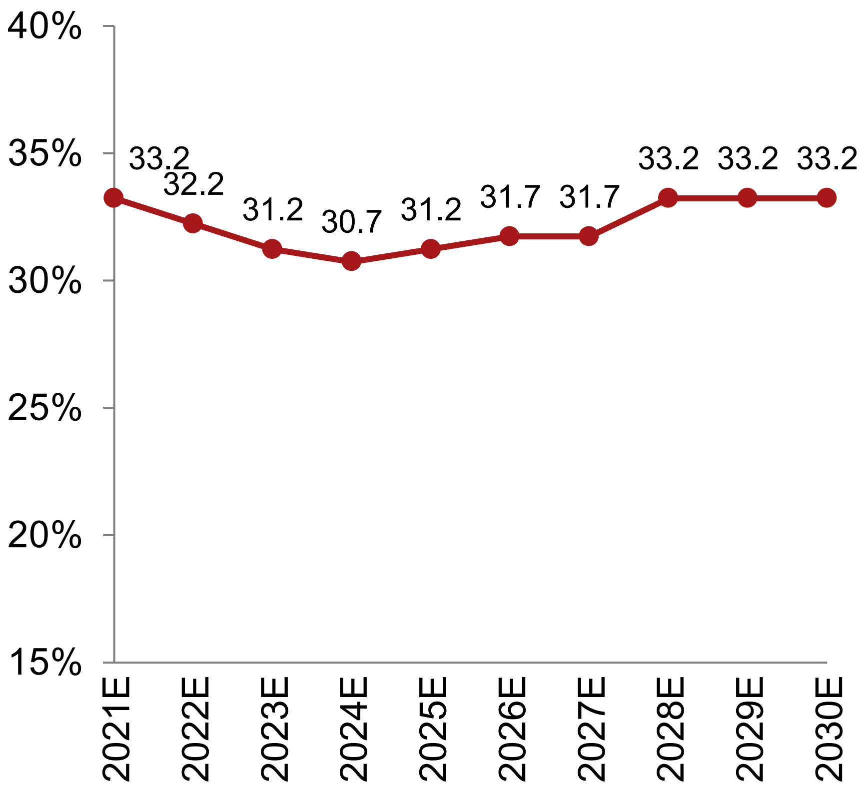
**Main assumptions**

Mansory and wood frame strategies gross margins aligned up ahead

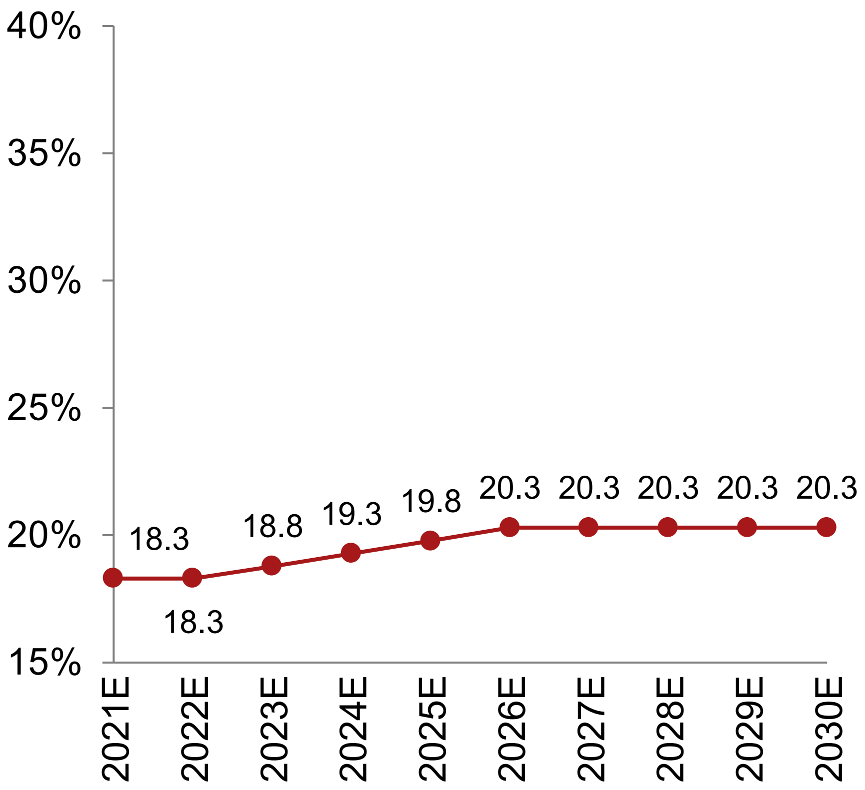
Increasing SG&A costs at the beginning of offsite ramp-up

Tax burden to maintain latter years trend

**Gross Margin**




**SG&A/Revenue**






*Source: Team Estimates*

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# CapEx assumptions

## CapEx

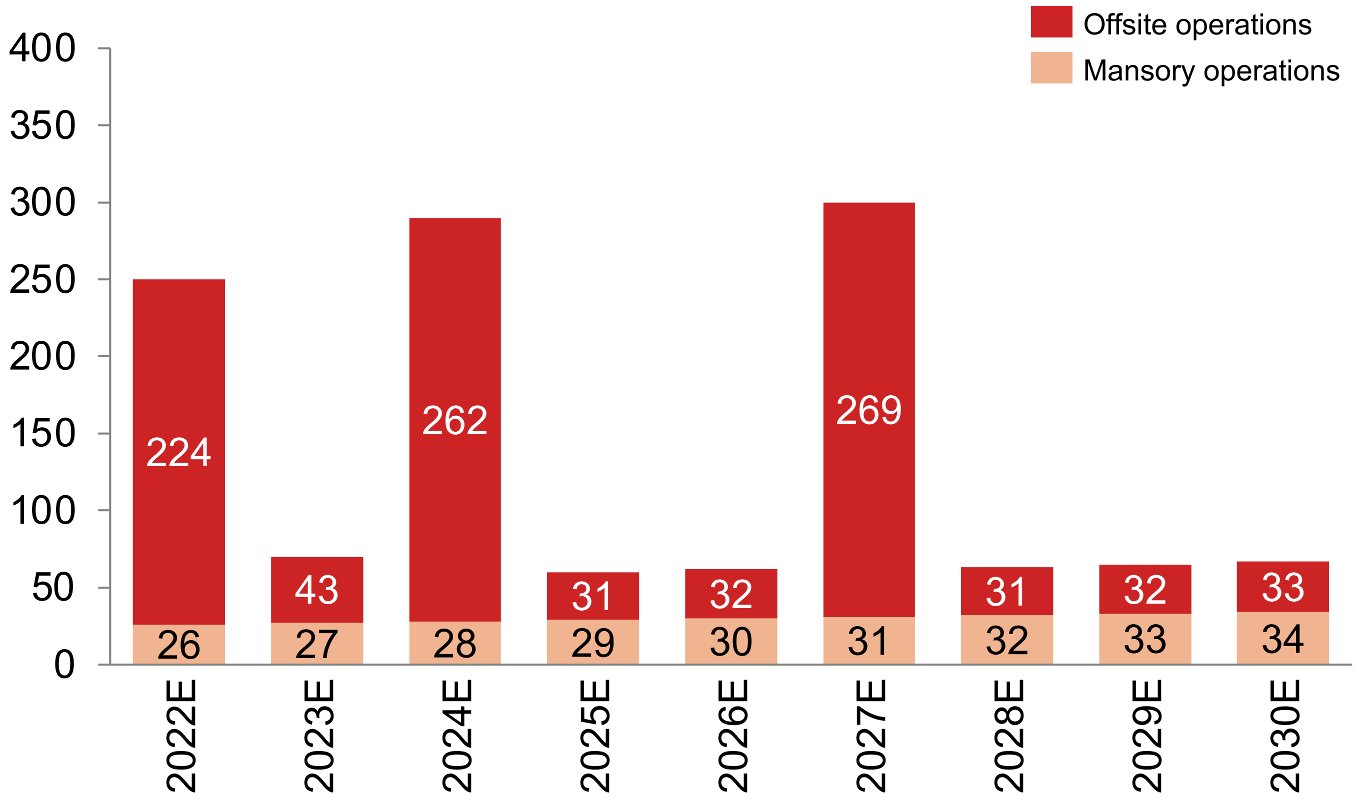
### Main assumptions

**Investments** in three factories to support wood frame offsite business

**Major** CapEx concentrated in four years

**First** plant to be done by 2023, second 2024, then only by 2027

### CapEx distribution



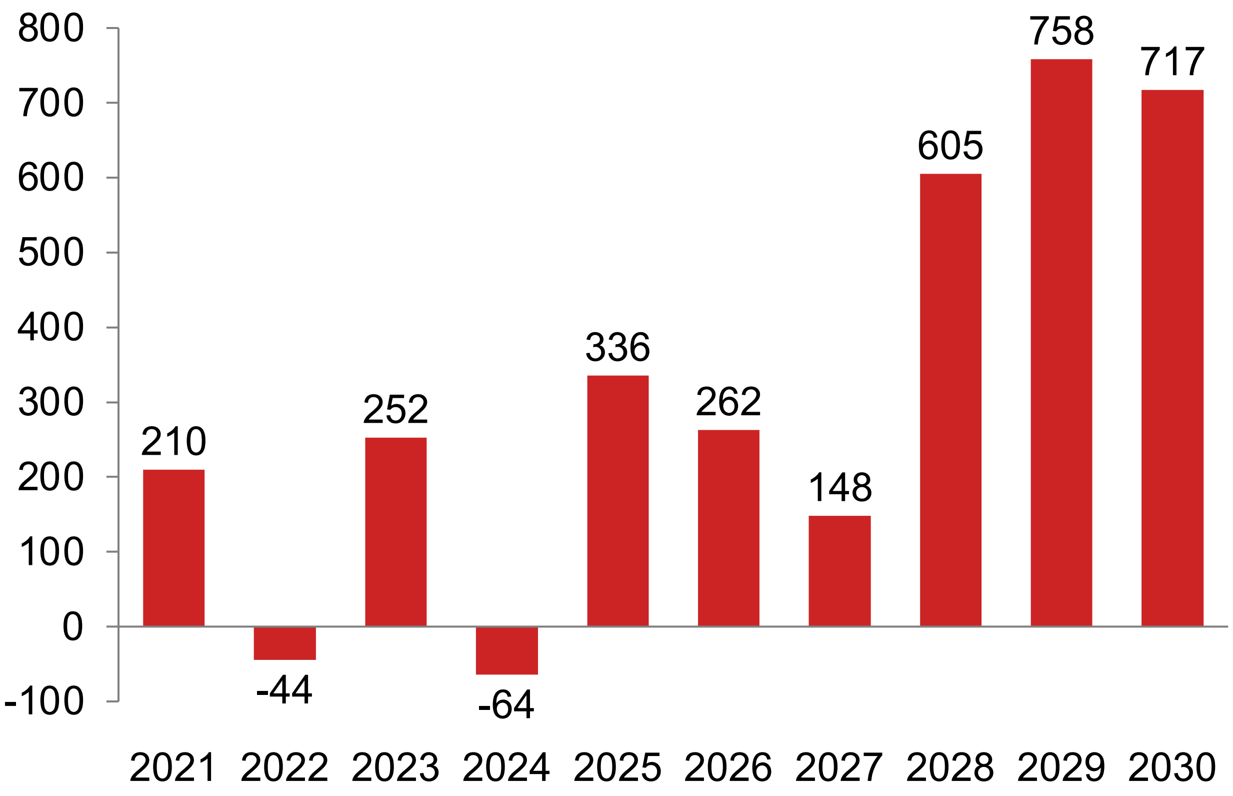



*Source: Team Estimates*

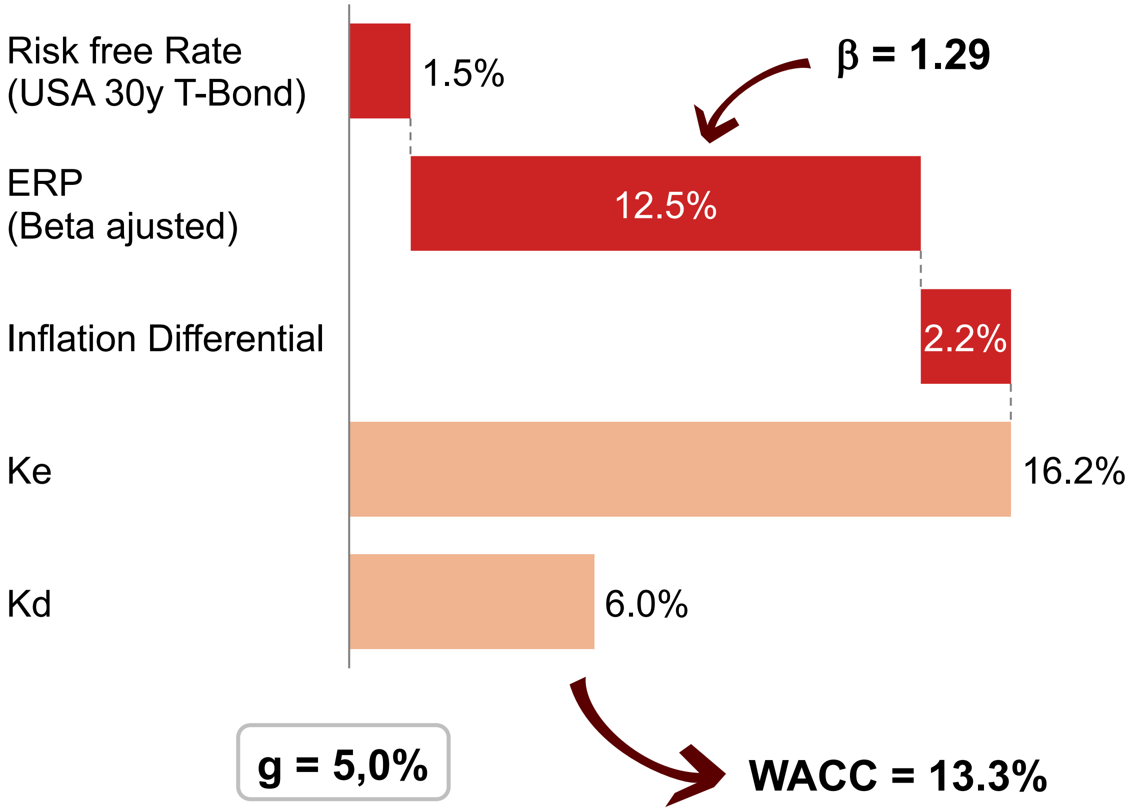
# Free cash flow projections

## Free cash flow

### FCFF




### WACC Construction



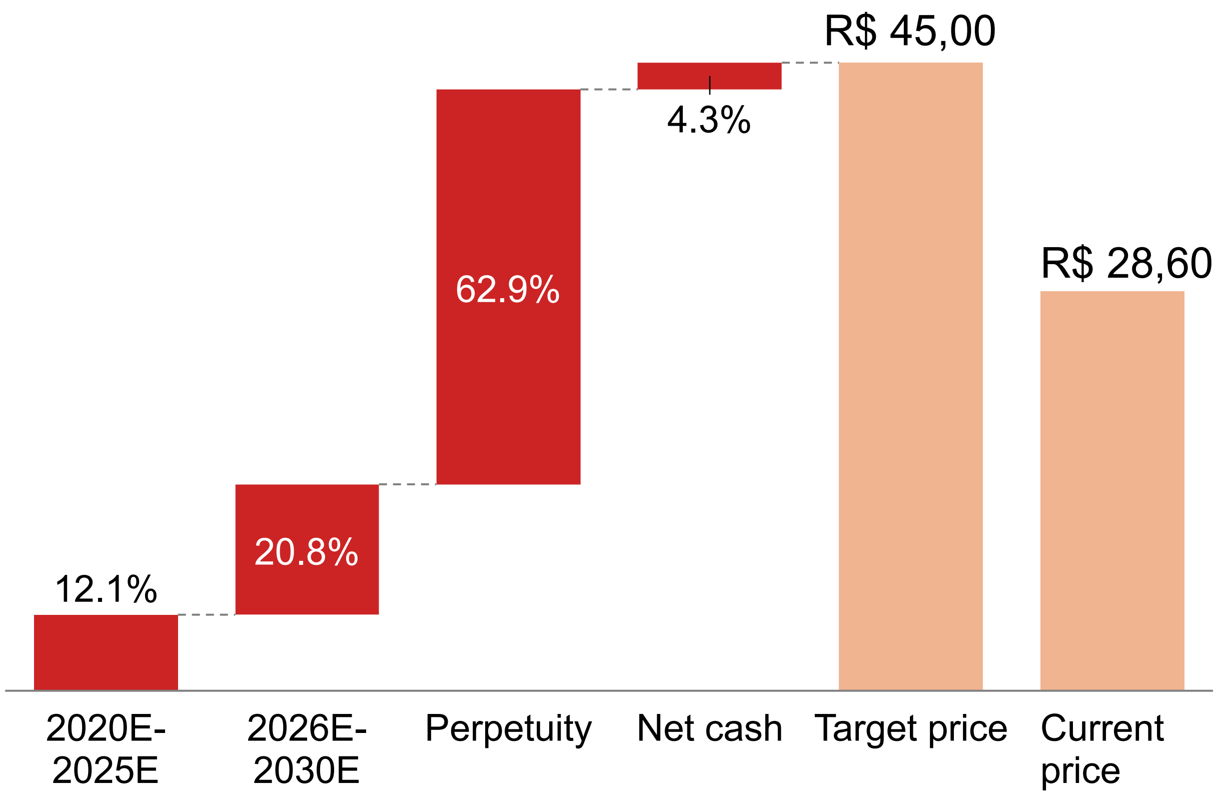



*Source: Team Estimates*

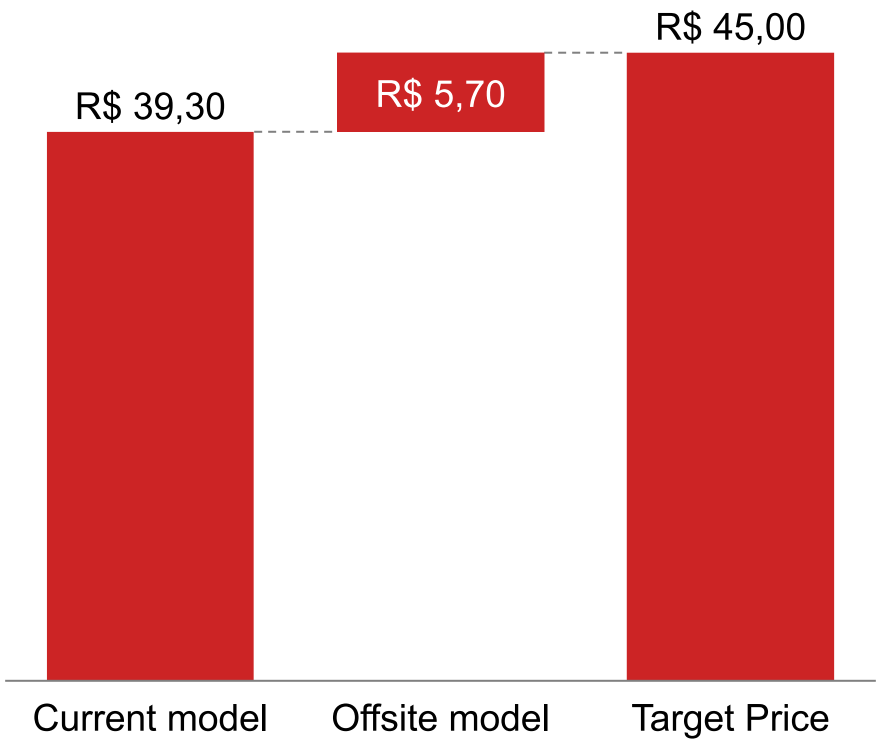
# Growth and value division

**Breakdowns**

### Target Price breakdown




### Target Price breakdown



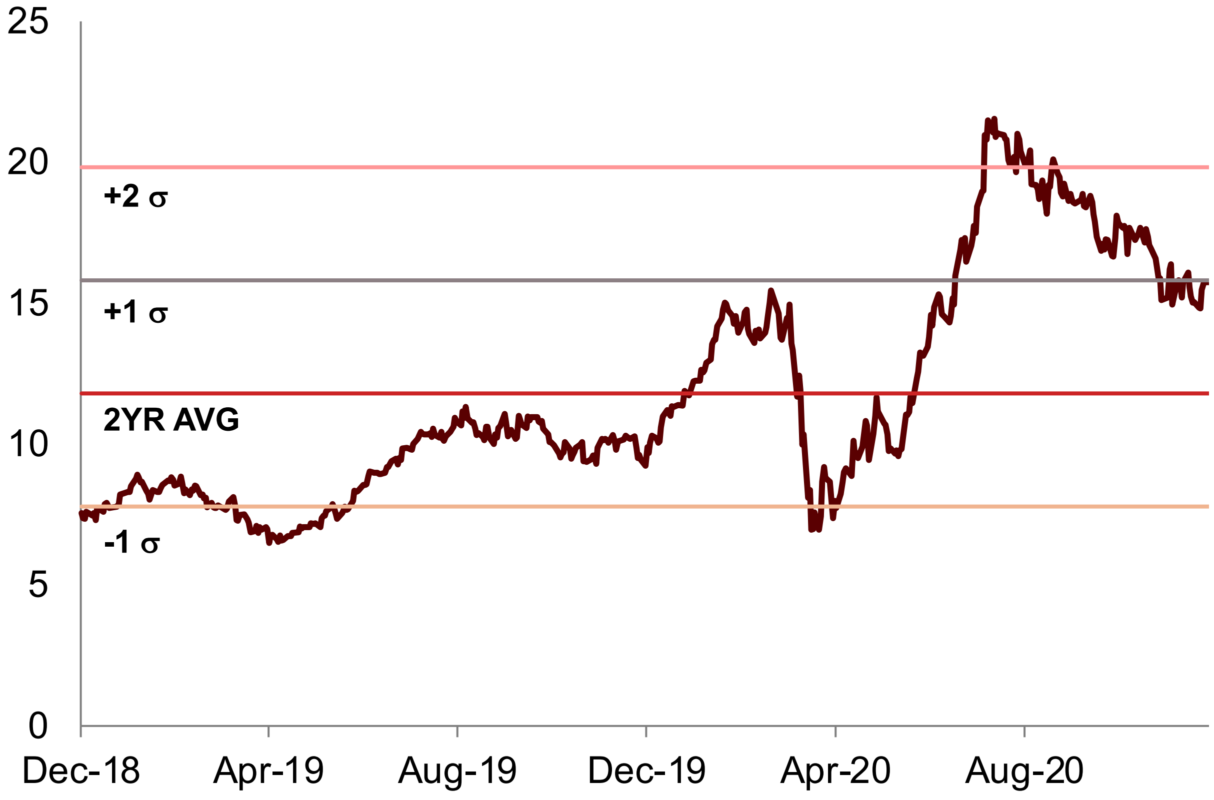



*Source: Team Estimates*

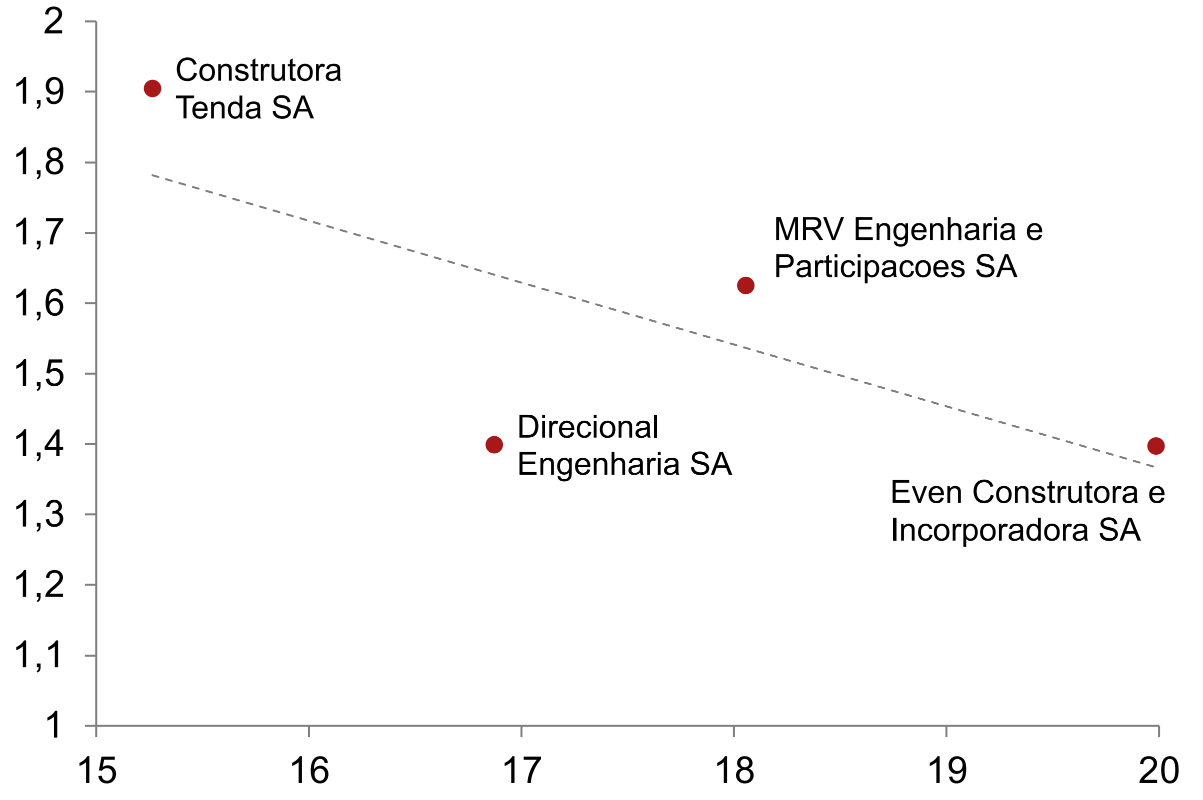
# Multiples comparation

## Multiples analysis

### P/E is 1σ above average




### Higher ROE compensates greater P/BV






Source: Refinitiv

# Sensitivity analysis suggests large margin of safety

## Sensitivity analysis

| G/Ke | 12,0% | 13,0% | 13,3% | 14,0% | 15,0% |
|---|---|---|---|---|---|
| 3,0% | R$ 46,02 | R$ 40,48 | R$ 39,05 | R$ 36,02 | R$ 32,36 |
| 4,0% | R$ 49,87 | R$ 43,35 | R$ 41,69 | R$ 38,21 | R$ 34,06 |
| 5,0% | R$ 54,83 | R$ 46,94 | R$ 49,15 | R$ 40,88 | R$ 36,10 |
| 6,0% | R$ 61,44 | R$ 51,56 | R$ 52,30 | R$ 44,23 | R$ 38,60 |
| 7,0% | R$ 70,69 | R$ 57,72 | R$ 54,66 | R$ 48,53 | R$ 41,72 |

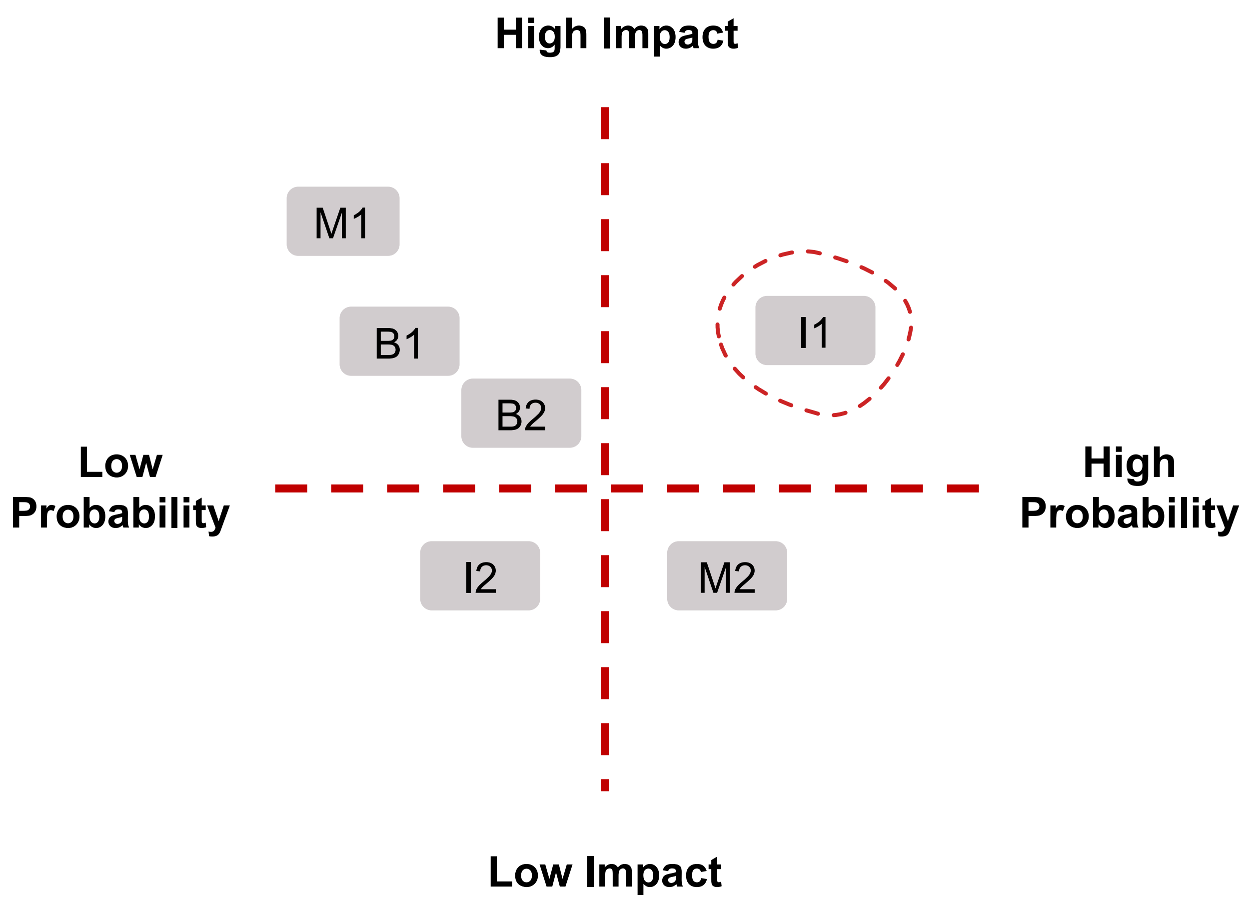


*Source: Team Estimates*

# Risks

# Investment Risks

## Risks Matrix




### Industry Risks

**I1: Competition for landbanks in metropolitan regions**

**I2:** Rising prices of raw material and inflationary pressure

### Macroeconomic Risks

**M1:** Changes in PVCA and shortfall of its resources.

**M2:** Increasing interest rates

### Business Risks

**B1:** Offsite model not being viable

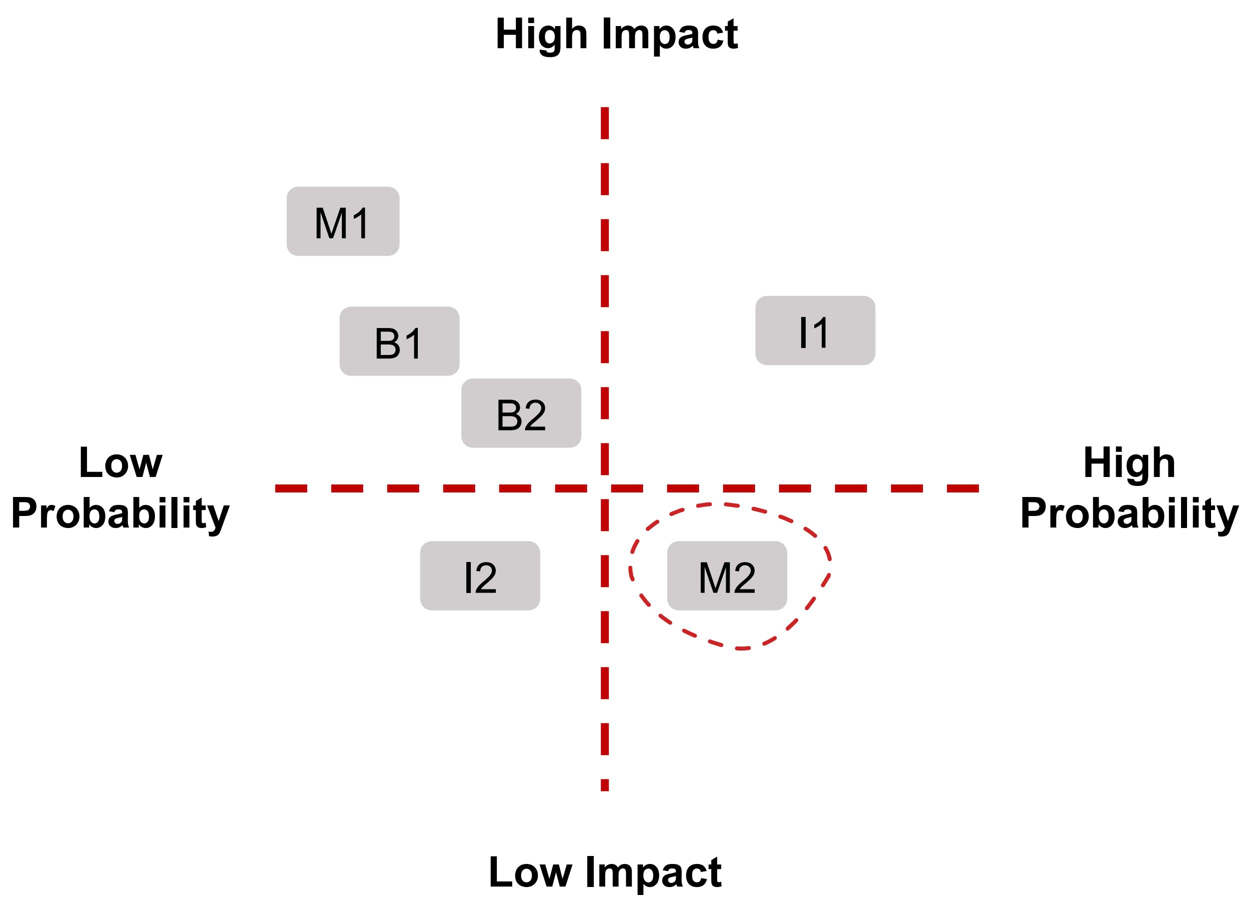
**B2:** Control alienation, takeovers and similar practices



*Source: Team Estimates*

# Investment Risks

## Risks Matrix




### Industry Risks

**I1:** Competition for landbanks in metropolitan regions

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### Macroeconomic Risks

**M1:** Changes in PVCA and shortfall of its resources.

**M2: Increasing interest rates**

### Business Risks

**B1:** Offsite model not being viable

**B2:** Control alienation, takeovers and similar practices



*Source: Team Estimates*

# Thank you!

# Q&A

Appendix A: Financial Statements

Appendix B: Revenue Assumptions

Appendix C: Valuation Methodology

Appendix D: Turnover & Liquidity Ratios

Appendix E: Macroeconomics Assumptions

Appendix F: Dupont Analysis

Appendix G: National Index of Civil Construction (INCC)

Appendix H: Profitability Metrics over the sector

Appendix I: Liquidity Metrics over the sector

Appendix J: Members of the Board of Directors

Appendix K: Recently Issued Debentures

Appendix L: Brazilian Housing Deficit

Appendix M: Casa Verde e Amarela Program – PCVA

Appendix N: Brazilian Roads

Appendix O: M&A Radar

Appendix P: Multiples Analysis

Appendix Q: SWOT Analysis

# Appendix A: Financial Statements

| Income Statement [BRL mn] | 2018A | 2019A | 2020E | 2021E | 2022E | 2023E | 2024E | 2025E | 2026E | 2027E | 2028E | 2029E | 2030E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Net Revenue** | **1681,25** | **1950,10** | **2174,78** | **2493,75** | **2897,15** | **3446,30** | **3904,69** | **4590,91** | **5113,42** | **5666,88** | **6474,52** | **7675,94** | **8716,04** |
| COGS | -1095,42 | -1302,02 | -1452,03 | -1665,00 | -1963,31 | -2369,91 | -2704,65 | -3157,02 | -3490,77 | -3868,60 | -4322,83 | -5124,98 | -5819,43 |
| **Gross Profit** | **585,83** | **648,08** | **722,75** | **828,75** | **933,84** | **1076,39** | **1200,03** | **1433,89** | **1622,65** | **1798,28** | **2151,69** | **2550,96** | **2896,62** |
| *% Net Revenue* | *34,8%* | *33,2%* | *33,2%* | *33,2%* | *32,2%* | *31,2%* | *30,7%* | *31,2%* | *31,7%* | *31,7%* | *33,2%* | *33,2%* | *33,2%* |
| SG&A | -366,47 | -357,34 | -398,51 | -456,96 | -530,83 | -647,38 | -752,91 | -907,81 | -1038,37 | -1150,75 | -1314,76 | -1558,73 | -1769,94 |
| Sales Expense | 145,29 | 162,53 | 181,26 | 207,84 | 241,44 | 294,45 | 342,45 | 412,90 | 472,28 | 523,40 | 598,00 | 708,96 | 805,03 |
| G&A | 123,85 | 117,12 | 130,61 | 149,77 | 173,98 | 212,18 | 246,77 | 297,54 | 340,33 | 377,17 | 430,92 | 510,88 | 580,11 |
| Other accounts | 97,33 | 77,70 | 86,65 | 99,36 | 115,42 | 140,77 | 163,71 | 197,39 | 225,78 | 250,22 | 285,88 | 338,93 | 384,86 |
| **EBIT** | **219,36** | **290,73** | **324,24** | **371,79** | **403,01** | **429,01** | **447,13** | **526,08** | **584,28** | **647,52** | **836,93** | **992,23** | **1126,68** |
| *% Net Revenue* | *13,0%* | *14,9%* | *14,9%* | *14,9%* | *13,9%* | *12,4%* | *11,5%* | *11,5%* | *11,4%* | *11,4%* | *12,9%* | *12,9%* | *12,9%* |
| Financial Result | 8,51 | 8,80 | -5,49 | -6,29 | -7,31 | -8,70 | -9,86 | -11,59 | -12,91 | -14,30 | -16,34 | -19,37 | -22,00 |
| Financial Revenue | 42,88 | 61,24 | 56,29 | 64,55 | 74,99 | 89,20 | 101,07 | 118,83 | 132,35 | 146,68 | 167,58 | 198,68 | 225,60 |
| Interest Expenses | 34,38 | 52,44 | 50,80 | 58,25 | 67,68 | 80,50 | 91,21 | 107,24 | 119,45 | 132,38 | 151,24 | 179,31 | 203,60 |
| **EBT** | **227,87** | **299,53** | **318,75** | **365,50** | **395,70** | **420,31** | **437,27** | **514,49** | **571,38** | **633,22** | **820,59** | **972,86** | **1104,68** |
| *% Net Revenue* | *13,6%* | *15,4%* | *14,7%* | *14,7%* | *13,7%* | *12,2%* | *11,2%* | *11,2%* | *11,2%* | *11,2%* | *12,7%* | *12,7%* | *12,7%* |
| Income Tax and Social Contribution | -26,52 | -35,12 | -54,80 | -62,83 | -68,02 | -72,26 | -75,17 | -88,44 | -98,22 | -108,86 | -141,07 | -167,24 | -189,90 |
| Tax Rate | -11,6% | -11,7% | -17,2% | -17,2% | -17,2% | -17,2% | -17,2% | -17,2% | -17,2% | -17,2% | -17,2% | -17,2% | -17,2% |
| **Net Income** | **201,35** | **264,41** | **263,95** | **302,67** | **327,67** | **348,06** | **362,10** | **426,04** | **473,15** | **524,37** | **679,52** | **805,61** | **914,78** |
| *% Net Revenue* | *12,0%* | *13,6%* | *12,1%* | *12,1%* | *11,3%* | *10,1%* | *9,3%* | *9,3%* | *9,3%* | *9,3%* | *10,5%* | *10,5%* | *10,5%* |

Tenda
sua próxima conquista

# Appendix A: Financial Statements

| Balance Sheet [BRL mn] | 2018A | 2019A | 2020E | 2021E | 2022E | 2023E | 2024E | 2025E | 2026E | 2027E | 2028E | 2029E | 2030E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Assets** | **2621,04** | **3478,49** | **3754,10** | **4149,49** | **4790,63** | **5544,00** | **6398,73** | **7166,69** | **8027,20** | **9165,86** | **10232,67** | **11571,53** | **13094,51** |
| **Current Assets** | **1787,86** | **2506,37** | **2678,16** | **2963,87** | **3290,40** | **3648,75** | **4080,27** | **4533,44** | **5031,19** | **5481,11** | **6011,53** | **6727,31** | **7525,41** |
| Cash and equivalents | 855,56 | 1070,50 | 1173,98 | 1287,47 | 1411,92 | 1548,41 | 1698,09 | 1862,24 | 2042,25 | 2239,67 | 2456,17 | 2693,60 | 2953,98 |
| Accounts receivables | 317,52 | 406,60 | 536,25 | 614,90 | 714,37 | 849,77 | 962,80 | 1132,00 | 1260,84 | 1397,31 | 1596,46 | 1892,70 | 2149,16 |
| Inventories | 570,77 | 955,59 | 887,08 | 972,83 | 1066,87 | 1143,93 | 1302,44 | 1410,94 | 1587,44 | 1689,88 | 1789,75 | 1955,50 | 2218,83 |
| Other current assets | 44,01 | 73,73 | 80,85 | 88,67 | 97,24 | 106,64 | 116,95 | 128,25 | 140,65 | 154,25 | 169,16 | 185,51 | 203,44 |
| **Non-current Assets** | **728,72** | **827,64** | **1075,94** | **1185,62** | **1500,23** | **1895,25** | **2318,46** | **2633,25** | **2996,01** | **3684,75** | **4221,14** | **4844,22** | **5569,09** |
| Accounts receivables | 158,18 | 218,54 | 239,67 | 262,84 | 288,24 | 316,11 | 346,67 | 380,18 | 416,93 | 457,23 | 501,43 | 549,90 | 603,06 |
| Inventories | 515,99 | 536,98 | 588,88 | 645,81 | 708,24 | 776,70 | 851,78 | 934,12 | 1024,42 | 1123,44 | 1232,04 | 1351,14 | 1481,75 |
| Other non-current assets | 54,55 | 72,13 | 79,10 | 86,74 | 95,13 | 104,32 | 114,41 | 125,47 | 137,60 | 150,90 | 165,48 | 181,48 | 199,02 |
| PP&E | 104,46 | 144,48 | 168,29 | 190,23 | 408,62 | 698,12 | 1005,61 | 1193,49 | 1417,07 | 1953,18 | 2322,19 | 2761,70 | 3285,26 |
| **Liabilities and Shareholders Equity** | **2621,04** | **3478,49** | **3754,11** | **4337,21** | **4941,37** | **5844,69** | **6695,68** | **7851,28** | **8883,80** | **10001,12** | **11462,26** | **13451,36** | **15368,71** |
| **Current Liabilities** | **453,58** | **578,97** | **645,68** | **740,38** | **830,45** | **987,87** | **1119,26** | **1315,96** | **1465,74** | **1624,38** | **1855,89** | **2200,27** | **2498,41** |
| Loans and financing | 10,09 | 14,12 | 15,74 | 18,05 | 20,25 | 24,08 | 27,29 | 32,08 | 35,73 | 39,60 | 45,25 | 53,64 | 60,91 |
| Suppliers | 21,45 | 38,93 | 43,41 | 49,78 | 55,83 | 66,42 | 75,25 | 88,48 | 98,55 | 109,21 | 124,78 | 147,93 | 167,98 |
| Social accounts | 26,95 | 30,05 | 33,51 | 38,42 | 43,10 | 51,27 | 58,09 | 68,30 | 76,07 | 84,30 | 96,32 | 114,19 | 129,67 |
| Advances of costumers | 258,24 | 340,86 | 380,13 | 435,89 | 488,92 | 581,59 | 658,95 | 774,76 | 862,93 | 956,34 | 1092,63 | 1295,38 | 1470,91 |
| Other current liabilities | 136,86 | 155,02 | 172,88 | 198,24 | 222,35 | 264,50 | 299,68 | 352,35 | 392,45 | 434,93 | 496,92 | 589,12 | 668,95 |
| **Non-current Liabilities** | **963,68** | **1547,81** | **1726,14** | **1979,30** | **2220,11** | **2640,93** | **2992,20** | **3518,05** | **3918,46** | **4342,58** | **4961,48** | **5882,15** | **6679,19** |
| Loans and financing | 532,40 | 856,32 | 954,98 | 1095,05 | 1228,27 | 1461,09 | 1655,43 | 1946,36 | 2167,88 | 2402,53 | 2744,93 | 3254,29 | 3695,25 |
| Advances of costumers | 361,30 | 602,39 | 671,79 | 770,32 | 864,04 | 1027,82 | 1164,53 | 1369,18 | 1525,01 | 1690,08 | 1930,95 | 2289,26 | 2599,45 |
| Defered tax | 7,83 | 11,79 | 13,15 | 15,08 | 16,92 | 20,12 | 22,80 | 26,81 | 29,86 | 33,09 | 37,81 | 44,82 | 50,89 |
| Provisions | 32,69 | 28,69 | 31,99 | 36,68 | 41,14 | 48,94 | 55,45 | 65,20 | 72,62 | 80,48 | 91,95 | 109,01 | 123,78 |
| Others | 29,45 | 48,62 | 54,22 | 62,17 | 69,74 | 82,96 | 93,99 | 110,51 | 123,08 | 136,41 | 155,85 | 184,77 | 209,80 |
| **Shareholders Equity** | **1203,77** | **1351,71** | **1382,29** | **1617,53** | **1890,81** | **2215,89** | **2584,22** | **3017,27** | **3499,61** | **4034,15** | **4644,89** | **5368,94** | **6191,11** |

# Appendix A: Financial Statements

| Cash Flow [BRL mn] | 2018A | 2019A | 2020E | 2021E | 2022E | 2023E | 2024E | 2025E | 2026E | 2027E | 2028E | 2029E | 2030E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Revenue** | **1681,25** | **1950,10** | **2174,78** | **2493,75** | **2897,15** | **3278,30** | **3643,87** | **4187,19** | **4637,41** | **5345,57** | **6363,67** | **7675,94** | **8716,04** |
| (-) COGS | -1095,4 | -1302,0 | -1452,0 | -1665,0 | -1934,3 | -2188,8 | -2432,9 | -2728,1 | -3096,2 | -3569,1 | -4248,8 | -5125,0 | -5819,4 |
| **Gross Profit** | **585,8** | **648,1** | **722,7** | **828,8** | **962,8** | **1089,5** | **1211,0** | **1357,9** | **1541,2** | **1776,5** | **2114,8** | **2551,0** | **2896,6** |
| (-) SG&A Expenses | -366,5 | -357,3 | -398,5 | -457,0 | -535,4 | -643,3 | -760,1 | -852,3 | -967,3 | -1115,1 | -1327,4 | -1601,2 | -1818,1 |
| **EBITDA** | **219,4** | **290,7** | **324,2** | **371,8** | **427,4** | **446,2** | **450,9** | **505,6** | **573,8** | **661,4** | **787,4** | **949,8** | **1078,5** |
| (-) Depreciation | -24,1 | -31,7 | -38,4 | -45,9 | -52,4 | -151,8 | -260,8 | -380,3 | -453,9 | -541,6 | -646,3 | -771,3 | -920,4 |
| **EBIT** | **195,2** | **259,1** | **285,8** | **325,9** | **375,0** | **294,3** | **190,1** | **125,2** | **119,9** | **119,8** | **141,1** | **178,5** | **158,1** |
| EBIT (1-IR) | 161,7 | 214,6 | 236,7 | 269,9 | 310,5 | 243,7 | 157,4 | 103,7 | 99,3 | 99,2 | 116,8 | 147,8 | 130,9 |
| (+) Depreciation | 24,1 | 31,7 | 38,4 | 45,9 | 52,4 | 151,8 | 260,8 | 380,3 | 453,9 | 541,6 | 646,3 | 771,3 | 920,4 |
| (+) Working Capital Changes | 20,3 | -236,7 | -0,9 | -84,8 | -97,7 | -58,3 | -51,2 | -28,5 | -43,5 | -72,9 | -143,4 | -245,6 | -195,3 |
| (+) CaPex | 22,5 | -5,2 | -18,7 | -44,3 | -250,0 | -250,0 | -250,0 | -84,4 | -127,7 | -180,7 | -248,7 | -336,3 | -439,7 |
| **Free Cash Flow** | **228,63** | **4,33** | **255,51** | **186,65** | **15,25** | **87,25** | **117,05** | **371,12** | **382,04** | **387,21** | **371,16** | **337,22** | **416,38** |

# Appendix B: Revenue Assumptions

| Units Released per Constructive Model | 2018A | 2019A | 2020E | 2021E | 2022E | 2023E | 2024E | 2025E | 2026E | 2027E | 2028E | 2029E | 2030E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Units** | 14.881 | 16.397 | 18.000 | 20.000 | 21.500 | 24.000 | 26.000 | 29.000 | 31.000 | 33.000 | 36.000 | 40.500 | 44.000 |
| **Traditional Model** | 14.881 | 16.397 | 18.000 | 20.000 | 21.000 | 22.000 | 23.000 | 24.000 | 25.000 | 26.000 | 27.000 | 28.000 | 29.000 |
| *% of Total Releases* | *100,0%* | *100,0%* | *100,0%* | *100,0%* | *97,7%* | *91,7%* | *88,5%* | *82,8%* | *80,6%* | *78,8%* | *75,0%* | *69,1%* | *65,9%* |
| **Offsite Model Releases** | - | - | - | - | 500 | 2.000 | 3.000 | 5.000 | 6.000 | 7.000 | 9.000 | 12.500 | 15.000 |
| *% of Total Releases* | *0,0%* | *0,0%* | *0,0%* | *0,0%* | *2,3%* | *8,3%* | *11,5%* | *17,2%* | *19,4%* | *21,2%* | *25,0%* | *30,9%* | *34,1%* |

| Units Average Price per Constructive Model | 2018A | 2019A | 2020E | 2021E | 2022E | 2023E | 2024E | 2025E | 2026E | 2027E | 2028E | 2029E | 2030E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Traditional Model** | 137.600 | 136.600 | 138.772 | 143.213 | 148.225 | 154.895 | 160.317 | 165.928 | 171.735 | 177.746 | 183.967 | 190.406 | 197.070 |
| **Offsite Model** | - | - | - | - | 200.000 | 207.000 | 214.245 | 221.744 | 229.505 | 237.537 | 245.851 | 254.456 | 263.362 |

| Revenue Breakdown [BRL MM] | 2018A | 2019A | 2020E | 2021E | 2022E | 2023E | 2024E | 2025E | 2026E | 2027E | 2028E | 2029E | 2030E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Net Revenue** | 1.681,25 | 1.950,10 | 2.174,78 | 2.493,75 | 2.997,15 | 3.860,30 | 4.547,42 | 5.588,46 | 6.490,44 | 7.329,64 | 8.687,18 | 10.856,64 | 12.666,47 |
| **Traditional Model Revenue** | 1.681,25 | 1.950,10 | 2.174,78 | 2.493,75 | 2.897,15 | 3.446,30 | 3.904,69 | 4.479,75 | 5.113,42 | 5.666,88 | 6.474,52 | 7.675,94 | 8.716,04 |
| *% of Net Revenue* | *100,0%* | *100,0%* | *100,0%* | *100,0%* | *96,7%* | *89,3%* | *85,9%* | *80,2%* | *78,8%* | *77,3%* | *74,5%* | *70,7%* | *68,8%* |
| **Offsite Model Revenue** | - | - | - | - | 100,00 | 414,00 | 642,74 | 1.108,72 | 1.377,03 | 1.662,76 | 2.212,66 | 3.180,70 | 3.950,43 |
| *% of Net Revenue* | *0,0%* | *0,0%* | *0,0%* | *0,0%* | *3,3%* | *10,7%* | *14,1%* | *19,8%* | *21,2%* | *22,7%* | *25,5%* | *29,3%* | *31,2%* |

# Appendix C: Valuation Methodology

| Kd | | Source |
|---|---|---|
| Financial Expenses [BRL mn] (2019) | 52,44 | *Tenda S.A.* |
| Onerous Liabilities [BRL mn] (2019) | 870,44 | *Tenda S.A.* |
| **Cost of Debt Pre-tax** | **6,02%** | *Team estimates* |

| Ke | | Source |
|---|---|---|
| Risk Free | 1,50% | *T-Bond 30Y Eua* |
| Equity Risk Premium | 9,64% | *Damodaran* |
| Brazil Risk Premium | 4,41% | *Damodaran* |
| Tenda's Beta 5Y (Monthly) | 1,159 | *Refinitiv* |
| Tenda's Final 2019 Debt/Equity | 1,564 | *Company's IR* |
| Tenda Unlevered Beta | 0,570 | *Team estimates* |
| Average Debt/Equity* | 1,918 | *Team estimates* |
| Tenda Re-Levereg Beta | 1,292 | *Team estimates* |
| Brazil CPI | 3,50% | *Brazil Central Bank* |
| USA CPI | 1,50% | *U.S. Bureau of Labor Statistics* |
| **Cost of Equity** | **16,20%** | *Team estimates* |

| WACC | |
|---|---|
| Debt | 0,25 |
| Equity | 0,74 |
| tax | 17,19% |
| **WACC** | **13,30%** |

*Source: Company's IR and Team Estimates*

| Sector's Debt/Equity | |
|---|---|
| TEND3 | 0,339 |
| DIRR3 | 0,000 |
| MRVE3 | 0,000 |
| **Average** | **0,339** |

*Source: Companies' IR and Team Estimates*

# Appendix D: Turnover & Liquidity Ratios

| Turnover & Liquidity Ratios | 2018A | 2019A | 2020E | 2021E | 2022E | 2023E | 2024E | 2025E | 2026E | 2027E | 2028E | 2029E | 2030E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Asset Turnover** | **0,71** | **0,64** | **0,60** | **0,63** | **0,65** | **0,67** | **0,65** | **0,68** | **0,67** | **0,66** | **0,67** | **0,70** | **0,71** |
| **Inventory Turnover** | **2,09** | **1,77** | **1,61** | **1,83** | **1,97** | **2,19** | **2,26** | **2,38** | **2,38** | **2,41** | **2,54** | **2,80** | **2,85** |
| Days of Inventory | 175,01 | 206,16 | 226,83 | 199,31 | 185,36 | 166,39 | 161,37 | 153,38 | 153,31 | 151,19 | 143,55 | 130,27 | 127,92 |
| **Receivables Turnover** | **5,66** | **5,39** | **4,61** | **4,33** | **4,36** | **4,41** | **4,31** | **4,38** | **4,27** | **4,26** | **4,33** | **4,40** | **4,31** |
| Days of Receivables Collection | 64,54 | 64,54 | 79,12 | 84,24 | 83,73 | 82,83 | 84,72 | 83,27 | 85,40 | 85,61 | 84,39 | 82,96 | 84,63 |
| **Payables Turnover** | **49,57** | **43,13** | **35,27** | **35,73** | **37,18** | **38,77** | **38,18** | **38,56** | **37,33** | **37,24** | **36,95** | **37,59** | **36,84** |
| Days of Payable | 7,36 | 8,46 | 10,35 | 10,21 | 9,82 | 9,41 | 9,56 | 9,46 | 9,78 | 9,80 | 9,88 | 9,71 | 9,91 |
| **Cash Cycle** | **232,19** | **262,24** | **295,60** | **273,34** | **259,28** | **239,81** | **236,53** | **227,18** | **228,93** | **227,00** | **218,06** | **203,51** | **202,64** |

| | 2018A | 2019A | 2020E | 2021E | 2022E | 2023E | 2024E | 2025E | 2026E | 2027E | 2028E | 2029E | 2030E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Current Ratio** | 3,94 | 4,33 | 4,15 | 4,00 | 3,96 | 3,69 | 3,65 | 3,44 | 3,43 | 3,37 | 3,24 | 3,06 | 3,01 |
| **Debt Service Coverage Ratio** | 5,12 | 4,75 | 5,76 | 5,76 | 5,37 | 4,81 | 4,42 | 4,43 | 4,41 | 4,41 | 4,99 | 4,99 | 4,99 |
| **Net Debt/EBITDA** | -1,43 | -0,69 | -0,63 | -0,47 | -0,41 | -0,15 | -0,03 | 0,22 | 0,28 | 0,31 | 0,40 | 0,62 | 0,71 |

# Appendix E: Macroeconomics Assumptions

| Macroeconomic Assumptions | 2018A | 2019A | 2020E | 2021E | 2022E | 2023E | 2024E | 2025E | 2026E | 2027E | 2028E | 2029E | 2030E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Dólar** | 3,66 | 3,95 | 5,28 | 5,00 | 4,78 | 4,80 | 4,80 | 4,80 | 4,80 | 4,80 | 4,80 | 4,80 | 4,80 |
| **Variação do dólar** | 14,7% | 7,9% | 33,7% | -5,3% | -4,4% | 0,4% | 0,0% | 0,0% | 0,0% | 0,0% | 0,0% | 0,0% | 0,0% |
| **Crescimento Real do PIB** | -3,3% | 1,3% | 1,3% | 1,2% | -5,1% | 3,2% | 2,5% | 2,5% | 2,5% | 2,5% | 2,5% | 2,5% | 2,5% |
| **Inflação BR** | 6,3% | 2,9% | 3,7% | 4,3% | 1,6% | 3,2% | 3,5% | 3,5% | 3,5% | 3,5% | 3,5% | 3,5% | 3,5% |

# Appendix F: Dupont Analysis

| Dupont Analysis | 2018A | 2019A | 2020E | 2021E | 2022E | 2023E | 2024E | 2025E | 2026E | 2027E | 2028E | 2029E | 2030E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **ROE** | **17,0%** | **20,7%** | **19,3%** | **20,2%** | **18,7%** | **17,0%** | **15,1%** | **15,2%** | **14,5%** | **13,9%** | **15,7%** | **16,1%** | **15,8%** |
| **ROA** | **8,5%** | **8,7%** | **7,3%** | **7,7%** | **7,3%** | **6,7%** | **6,1%** | **6,3%** | **6,2%** | **6,1%** | **7,0%** | **7,4%** | **7,4%** |
| Asset Turnover | 0,71 | 0,64 | 0,60 | 0,63 | 0,65 | 0,67 | 0,65 | 0,68 | 0,67 | 0,66 | 0,67 | 0,70 | 0,71 |
| Net Margin | 12,0% | 13,6% | 12,1% | 12,1% | 11,3% | 10,1% | 9,3% | 9,3% | 9,3% | 9,3% | 10,5% | 10,5% | 10,5% |
| **Financial Leverage** | **2,0** | **2,4** | **2,6** | **2,6** | **2,5** | **2,5** | **2,5** | **2,4** | **2,3** | **2,3** | **2,2** | **2,2** | **2,1** |

Tenda
sua próxima conquista

# Appendix E: Macroeconomics Assumptions

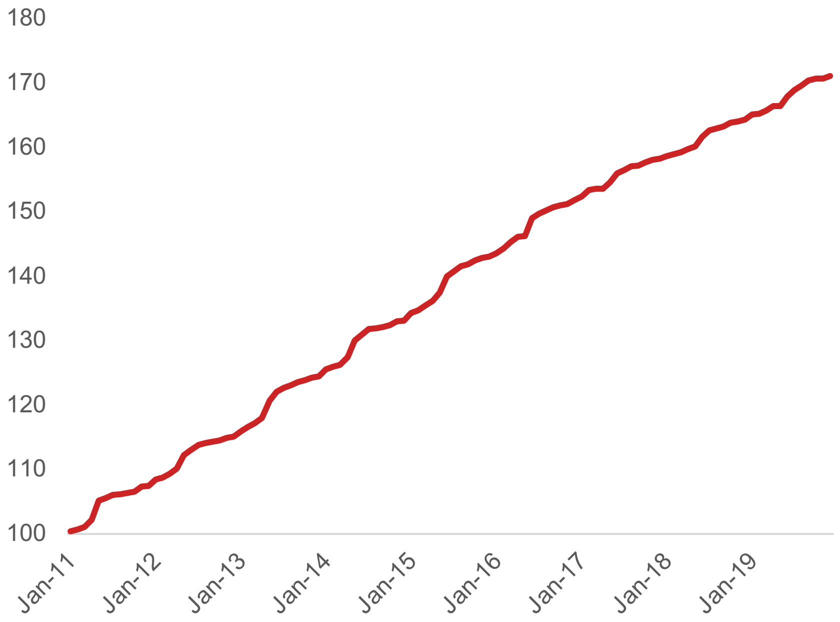
| Macroeconomic Assumptions | 2018A | 2019A | 2020E | 2021E | 2022E | 2023E | 2024E | 2025E | 2026E | 2027E | 2028E | 2029E | 2030E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Dólar** | 3,66 | 3,95 | 5,28 | 5,00 | 4,78 | 4,80 | 4,80 | 4,80 | 4,80 | 4,80 | 4,80 | 4,80 | 4,80 |
| **Variação do dólar** | 14,7% | 7,9% | 33,7% | -5,3% | -4,4% | 0,4% | 0,0% | 0,0% | 0,0% | 0,0% | 0,0% | 0,0% | 0,0% |
| **Crescimento Real do PIB** | -3,3% | 1,3% | 1,3% | 1,2% | -5,1% | 3,2% | 2,5% | 2,5% | 2,5% | 2,5% | 2,5% | 2,5% | 2,5% |
| **Inflação BR** | 6,3% | 2,9% | 3,7% | 4,3% | 1,6% | 3,2% | 3,5% | 3,5% | 3,5% | 3,5% | 3,5% | 3,5% | 3,5% |

# Appendix F: Dupont Analysis

| Dupont Analysis | 2018A | 2019A | 2020E | 2021E | 2022E | 2023E | 2024E | 2025E | 2026E | 2027E | 2028E | 2029E | 2030E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **ROE** | **17,0%** | **20,7%** | **19,3%** | **20,2%** | **18,7%** | **17,0%** | **15,1%** | **15,2%** | **14,5%** | **13,9%** | **15,7%** | **16,1%** | **15,8%** |
| **ROA** | **8,5%** | **8,7%** | **7,3%** | **7,7%** | **7,3%** | **6,7%** | **6,1%** | **6,3%** | **6,2%** | **6,1%** | **7,0%** | **7,4%** | **7,4%** |
| Asset Turnover | 0,71 | 0,64 | 0,60 | 0,63 | 0,65 | 0,67 | 0,65 | 0,68 | 0,67 | 0,66 | 0,67 | 0,70 | 0,71 |
| Net Margin | 12,0% | 13,6% | 12,1% | 12,1% | 11,3% | 10,1% | 9,3% | 9,3% | 9,3% | 9,3% | 10,5% | 10,5% | 10,5% |
| **Financial Leverage** | **2,0** | **2,4** | **2,6** | **2,6** | **2,5** | **2,5** | **2,5** | **2,4** | **2,3** | **2,3** | **2,2** | **2,2** | **2,1** |

# Appendix G: National Index of Civil Construction (INCC)

Designed with the purpose of evaluating the evolution of housing constructions cost, the INCC is one of the thermometers of the level of economic activity. It covers the prices of materials, equipment, services, and labor. Obtained monthly, the INCC is surveyed between the 1st and the last day of the month of reference in the following capitals: Recife, Salvador, Rio de Janeiro, São Paulo, Belo Horizonte, Brasília and Porto Alegre. The institution responsible for the Index is the Brazilian Institute of Economics (IBRE), from Getúlio Vargas Foundation (FGV).




*Source: FGV IBRE*

# Appendix H: Profitability Metrics over the sector

| Company Name | Gross Profit Margin, 5 Yr Avg(FY0) |
|---|---|
| Eztec | 44,7% |
| Tenda | 32,9% |
| MRV | 32,0% |
| Trisul | 31,9% |
| Cyrela | 31,0% |
| Direcional | 21,0% |
| Even | 19,4% |
| Gafisa | 16,1% |
| Helbor | 9,6% |
| Tecnisa | 5,0% |
| **Average** | **24,3%** |

| Company Name | EBITDA Margin, 5 Yr Avg(FY0) |
|---|---|
| Eztec | 23,9% |
| Trisul | 15,5% |
| MRV | 14,6% |
| Tenda | 14,6% |
| Cyrela | 8,8% |
| Direcional | 7,2% |
| Even | -0,6% |
| Gafisa | -8,6% |
| Helbor | -9,2% |
| Tecnisa | -32,9% |
| **Average** | **3,3%** |

| Company Name | EBIT Margin, 5 Yr Avg(FY0) |
|---|---|
| Eztec | 23,6% |
| Trisul | 13,8% |
| MRV | 13,5% |
| Tenda | 13,0% |
| Cyrela | 6,6% |
| Direcional | 4,8% |
| Even | -1,4% |
| Helbor | -10,2% |
| Gafisa | -12,0% |
| Tecnisa | -35,3% |
| **Average** | **1,6%** |

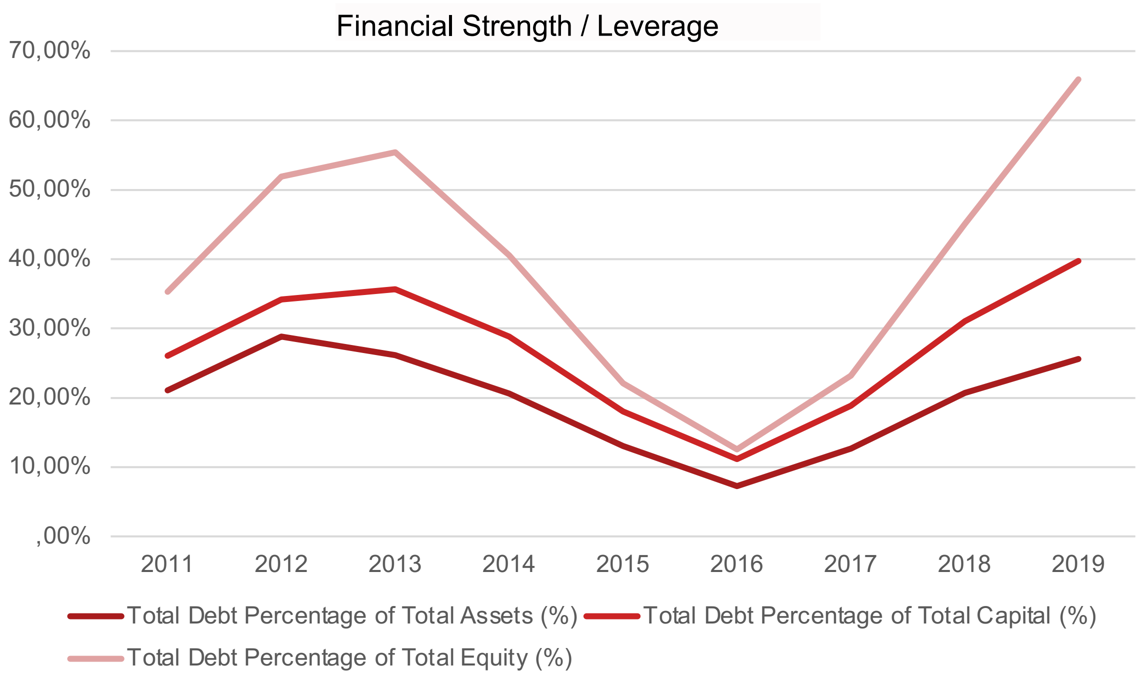
| Company Name | Net Margin, 5 Yr Avg(FY0) |
|---|---|
| Eztec | 40,2% |
| MRV | 13,4% |
| Trisul | 11,8% |
| Tenda | 9,4% |
| Cyrela | 7,9% |
| Direcional | 1,0% |
| Even | -1,2% |
| Helbor | -18,4% |
| Gafisa | -41,3% |
| Tecnisa | -49,6% |
| **Average** | **-2,7%** |

*Source: Refinitiv*

# Appendix I: Liquidity Metrics over the sector

| Company Name | Curr Ratio, 5 Yr Avg(FY0) |
|---|---|
| Eztec | 5,84 |
| Tenda | 3,61 |
| Direcional | 3,49 |
| Cyrela | 3,01 |
| Even | 2,80 |
| Trisul | 2,79 |
| Helbor | 2,66 |
| MRV | 2,52 |
| Tecnisa | 1,67 |
| Gafisa | 1,62 |
| **Average** | **3,00** |

| Company Name | Quick Ratio, 5 Yr Avg(FY0) |
|---|---|
| Eztec | 3,21 |
| Tenda | 2,28 |
| Direcional | 2,22 |
| Cyrela | 1,62 |
| Trisul | 1,51 |
| Even | 1,45 |
| MRV | 1,43 |
| Helbor | 1,03 |
| Gafisa | 0,88 |
| Tecnisa | 0,66 |
| **Average** | **1,63** |




*Source: Refinitiv*

# Appendix J: Members of the Board of Directors


| Member | Experience |
|---|---|
| **José Urbano Duarte** | He worked at Caixa Econômica Federal between 1981 and 2014, having held several technical and strategic positions, including Vice President of Housing between 2011 and 2014. He is a partner at José Urbano Consultoria Ltda. specialized consultancy in the real estate sector |
| **Cláudio José de Carvalho Andrade** | He is a partner at Polo Capital Gestão de Recursos and several other real estate and asset management companies that are part of Polo's portfolio of companies. He is also a member of the Board of Directors of Casa e Video Rio de Janeiro S.A., a retail company |
| **Rodolpho Amboss** | He is a founding partner and executive director of Silverpeak Real Estate Partners, a global real estate investment fund management and administration company |
| **Mauricio Luis Luchetti** | He is vice president of the Board of Directors and coordinator of the People and Governance Committee of Estácio Participações S.A. He has pleny of experience, worked as People and Management director and regional director of Operations, Chief Operating Officer and member of the Boards of Directors of several publicly-held companies. |
| **Flavio Uchôa Teles de Menezes** | He is a director at Pátria Investimentos, where he is responsible for investments in public companies. He was a partner at GPS Planejamento Financeiro, founding partner, CEO and member of the Board of Directors of MundoMedia S.A and partner and head of variable income management at Banco Patrimônio de Investimentos |
| **Eduardo Ferreira Pradal** | He is a real estate associate at Polo Capital Gestão de Recursos. He was founding partner and commercial director of Movia and commercial director of PDG Realty / CHL |
| **Mario Mello Freire Neto** | He is a founding partner and president of the institution Poder do Voto. He is a member of the Advisory Board of Valor Capital Group and a member of the Board of Directors of Track & Field. He was general director for Latin America at Paypal, member of the Boards of Directors of ContaAzul, Alelo and Cielo, and held executive positions at Visa, Bank of Boston and ABN AMRO Bank |

*Source: Tenda's IR*

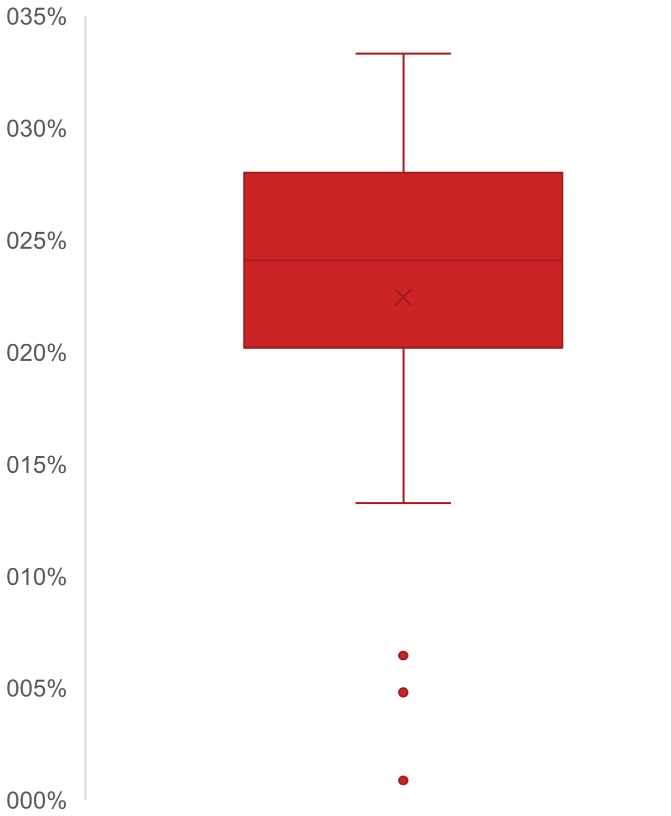
# Appendix K: Recently Issued Debentures

| Debt Contracts Breakdown | Launch | Maturity Date | Value BRL | Interest | Type | Interest payment | principal payment |
|---|---|---|---|---|---|---|---|
| **Debentures 3rd Emission** | 03/09/17 | 15/01/21 | 270.000.000,00 | CDI + 0.9% | Non Convertible Debentures | At Maturity | 100.00% 01/21 |
| **Debentures 4th Emission** | 10/09/18 | 15/09/23 | 150.000.000,00 | CDI + 1.75% | Non Convertible Debentures | Semestral | 33.33% 09/21 - 33.33% 09/22 - 33.33% 09/23 |
| **Debentures 5th Emission** | 02/04/19 | 15/03/24 | 150.000.000,00 | CDI + 1.4% | Non Convertible Debentures | Semestral | 50% 03/23 - 50% 03/24 |
| **Debentures 6th Emission** | 05/12/19 | 15/12/24 | 200.000.000,00 | CDI + 1.3% | Non Convertible Debentures | Semestral | 25% 12/21 - 25% 12/22- 25% 12/23 - 25% 12/24 |

# Appendix H: VSO's Statistics

| QUARTERLY VSO | | | |
|---|---|---|---|
| YEAR | AVERAGE | VARIANCE | STANDARD DEVIATION |
| 2013 | 14,79% | 0,88% | 9,40% |
| 2014 | 11,33% | 0,10% | 7,31% |
| 2015 | 23,83% | 0,10% | 3,10% |
| 2016 | 22,85% | 0,10% | 3,16% |
| 2017 | 25,54% | 0,01% | 1,21% |
| 2018 | 30,66% | 0,05% | 2,17% |
| 2019 | 28,08% | 0,00% | 0,57% |

Box Plot of Quartely VSO (1T13 - 4T19)



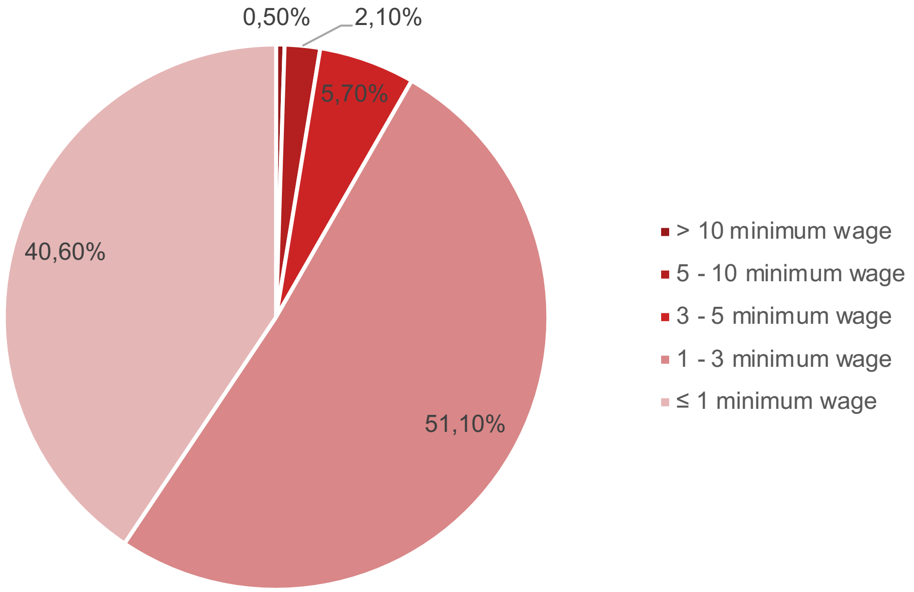

Source: Tenda's IR

# Appendix L: Brazilian Housing Deficit

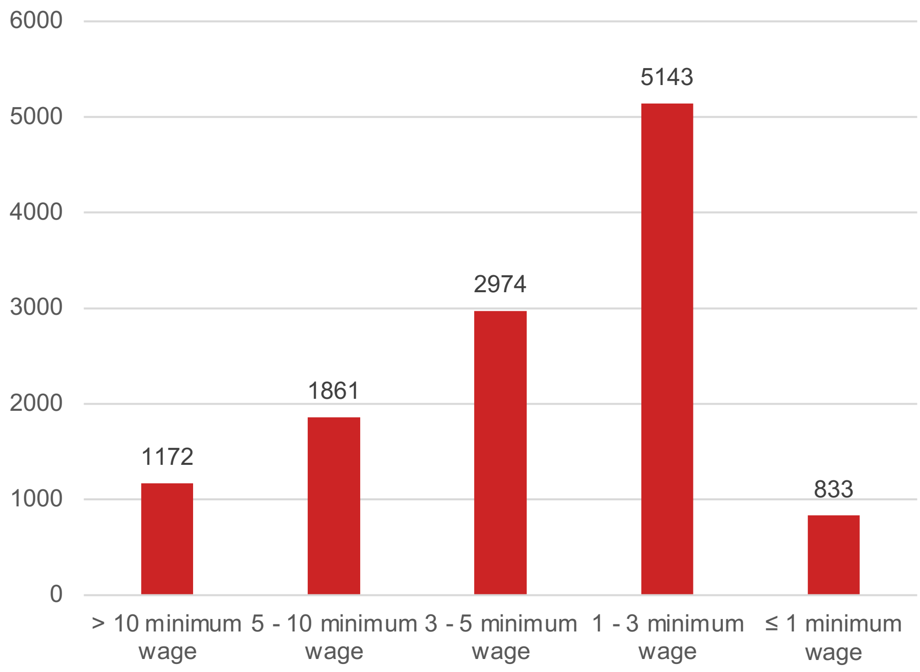
According to the study realized by Ernest Young in partnership with FGV in 2007 - “Brasil Sustentável: potencialidades do mercado habitacional - a country’s housing needs are dictated by three main elements: family dynamics (Appendix P), housing deficit and depreciation of the housing stock

“Análise das Necessidades Habitacionais e suas Tendências para os Próximos Dez Anos”, published in 2018 by the Brazilian Association of Real Estate Developers (Abrainc) in partnership with FGV, states that in 2017, Brazil presented a housing deficit of around 7.7 million units. Of this amount, 12.4% are due to precarious housing, 41.3% due to family cohabitation, 42.3% due to excessive rent charges and 3.9% due to excessive density. Since 2007, the housing deficit has never been below 6.5 million.

Distribution of housing deficit by income bracket [%]




Housing Needs (New Housing + Deficit Reduction) by 2027 [th]




Source: PNAD Contínua - IBGE e FGV

# Appendix M: Casa Verde e Amarela Program – PCVA

PROGRAMA CASA VERDE E AMARELA

| Group | Income Bracket | S - SE - MW | | N - NE | |
|---|---|---|---|---|---|
| | | Non-Quotaholder | Quotaholder | Non-Quotaholder | Quotaholder |
| Group 1 | Up to R$ 2.000 | 5,00% | 4,50% | 4,75% | 4,25% |
| | | 5,25% | 4,75% | 5,00% | 4,50% |
| Group 2 | R$ 2.000 to R$ 4.000 | 5,50% | 5,00% | 5,25% | 4,75% |
| | | 6,00% | 5,50% | 6,00% | 5,50% |
| | | 7,00% | 6,50% | 7,00% | 6,50% |
| Group 3 | R$ 4.000 to R$ 7.000 | 8,16% | 7,66% | 8,16% | 7,66% |

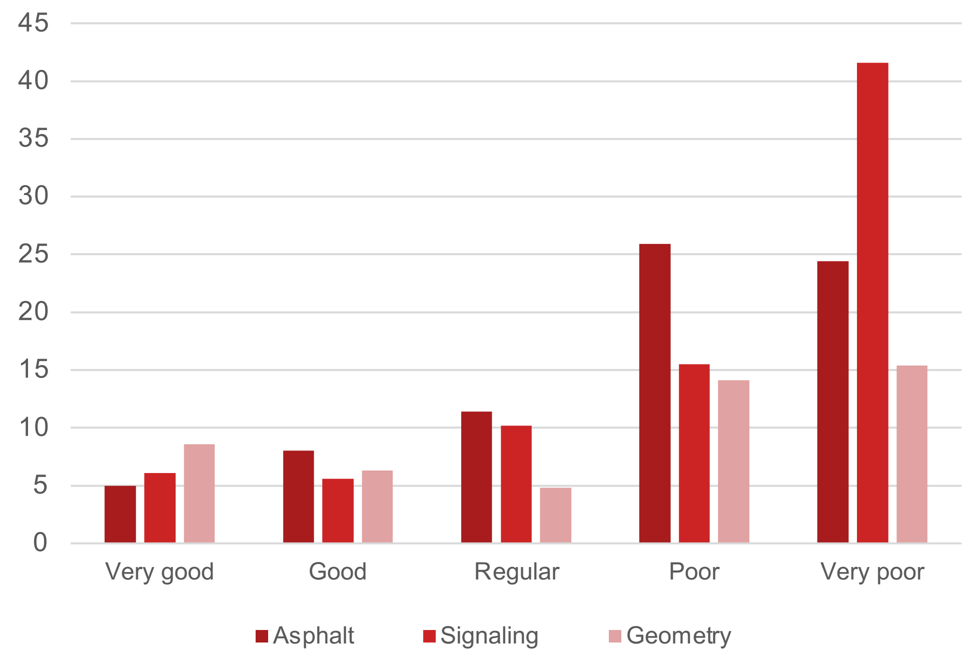
*Source: Brazilian Government*

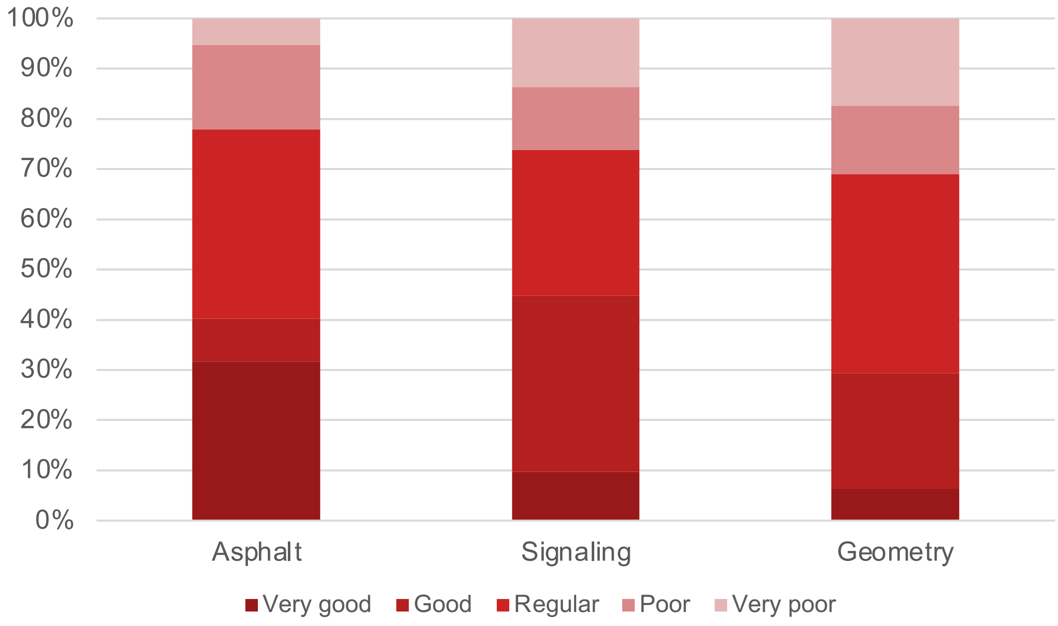
# Appendix N: Brazilian Roads

**Road safety outlook.** The Brazilian Federal Highway Police, together with the National Transport Confederation, has developed a series of statistics regarding the safety in roads across the country. The highway network is divided by three categories, regarding safety elements, asphalt quality, signaling, and geometry (i.e., Presence of places such as dangerous corners).

The statistics shows that the current network is mainly constituted of regular roads. However, changes regarding road safety impact massively on accidents statistics.

Looking for expansion to broader regions, Tenda's trucks will travel roads outside main centers, and in the case of Brazil, those roads despite coping with less traffic, concentrate the most dangerous parts. Thus, while it sounds easy, the logistics point of view for transporting buildings through Brazil may be a relevant challenge, especially where Tenda wants to do.

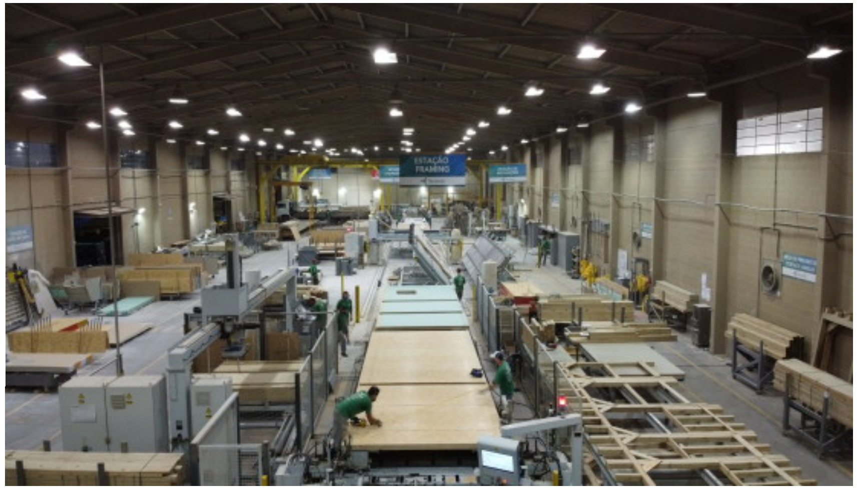



*Source: Brazilian Federal Highway Police and National Transport Confederation*

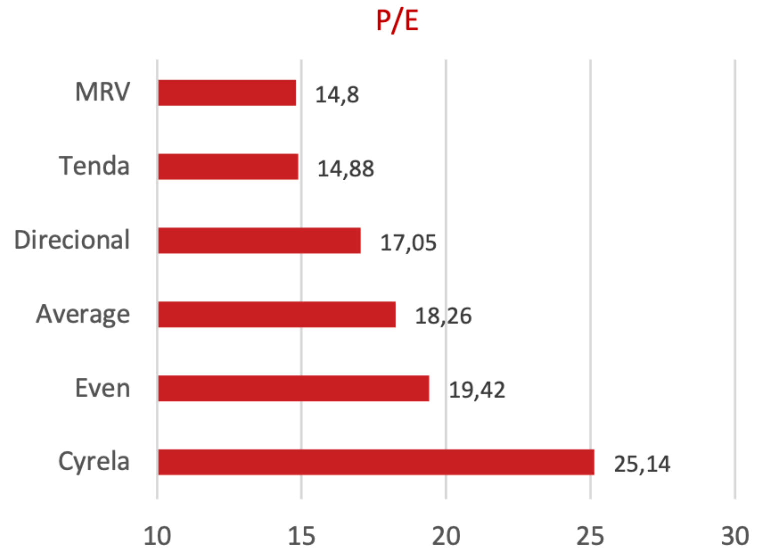
# Appendix O: M&A Radar

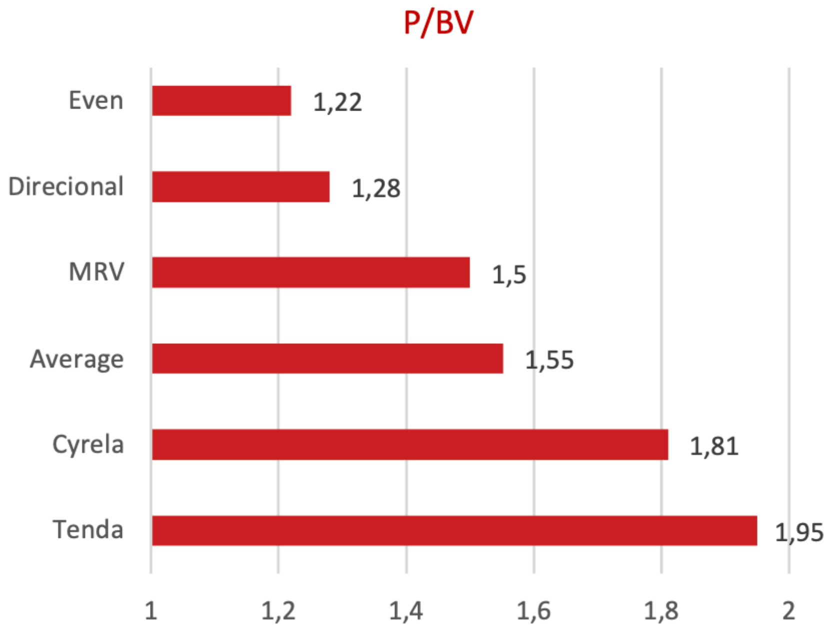
TECVERDE
Construções eficientes

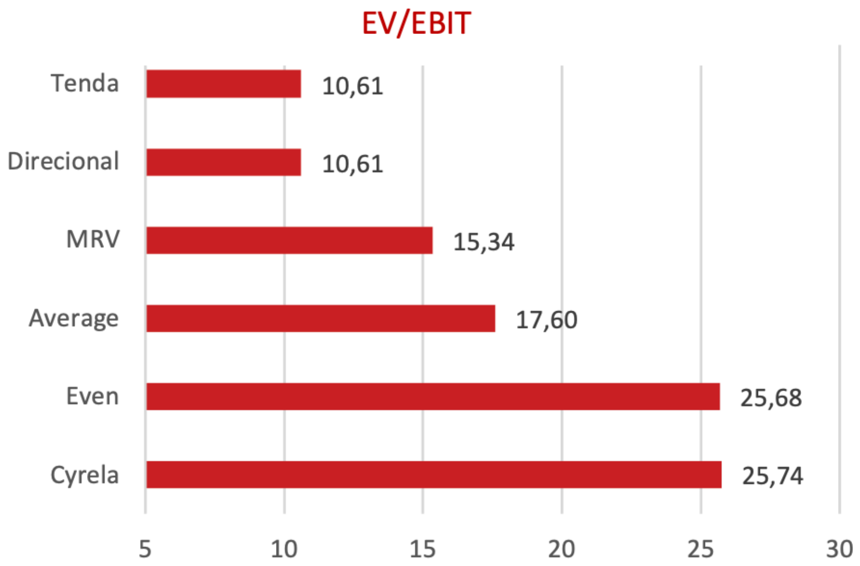



BRASIL
AO CUBO

# Appendix P: Multiples Analysis




Tenda
sua próxima conquista

# Appendix Q: SWOT Analysis

**STRENGTHS**

**S**

- Low costs;
- Lower prices than the competition;
- Sales speed;
- Leadership positioning;
- Verticalized process;
- Standardization in 3 SKUs.

**WEAKNESSES**

**W**

- Low bargaining power with consumers and suppliers;
- Model with low technical differentiation;
- Risks with the new business model (Offsite);
- Operational risk in new regions;
- Low possibility for expansion without the Offsite model.

TENDA

**OPPORTUNITIES**

**O**

- Low funding cost;
- Credit availability;
- Government grants;
- High housing deficit;
- Resumption of economic activity;
- Population growth;
- Growth of the real estate market.

**THREATS**

**T**

- Risks related to changes in the PCVA;
- High need for funding;
- Shortage of FGTS resources;
- Inflationary pressures;
- Increased competition from listed companies
- Greater dispute over land.