

A photograph of an industrial refinery at sunset. The sky is a vibrant orange and yellow, with the sun low on the horizon. Silhouettes of various refinery structures, including tall distillation columns and complex piping, are visible against the bright sky. In the foreground, there are several large, cylindrical storage tanks. The overall scene is industrial and atmospheric.

Petrobras Repositioning in Refining

Preliminary model

Initial considerations

In order to support its final proposal regarding partnerships in the refining segment, Petrobras held a seminar with the participation of the Ministry of Mines and Energy (MME), the National Petroleum Agency (ANP), the Brazilian Institute of Petroleum, Natural Gas and Biofuels (IBP) and other interested entities, to learn about these players' perspective on the subject and to introduce its preliminary model for partnerships in the sector.

It was a technical event, without the goal of announcing a decision on the matter. Accordingly, Petrobras clarified that the preliminary model had no formal approval of its governance bodies (Executive Board and Board of Directors).

The pursuit of partnerships in the refining segment was approved in the Petrobras Strategic Planning (PE) and the 2017-2021 Business and Management Plan (PNG), and reinforced in PNG 2018-2022, as indicated in the strategy to “reduce Petrobras’ E&P, Refining, Transportation, Logistics, Distribution and Sale risks through partnership and disinvestments.”

This document is the presentation made by Petrobras at the event.

Structural changes in the industry and country are requiring a revision of Petrobras portfolio in order to prepare for the future

Prepare the company for the future



Oil & Gas
industry

- The industry is facing both demand and supply challenges
- Transition to a low carbon economy is a trend, with multiple disruptive effects for which oil & gas companies have to prepare
- New technologies will continue to transform the industry

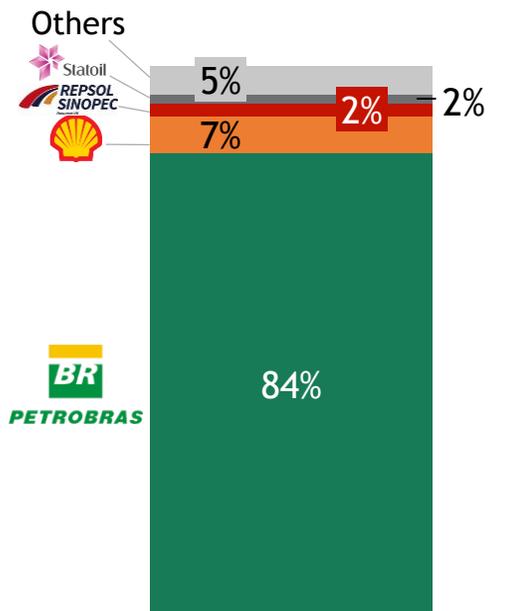


Brazil

- Government has sought to create conditions to attract private investors in the refining and primary logistics sector in Brazil

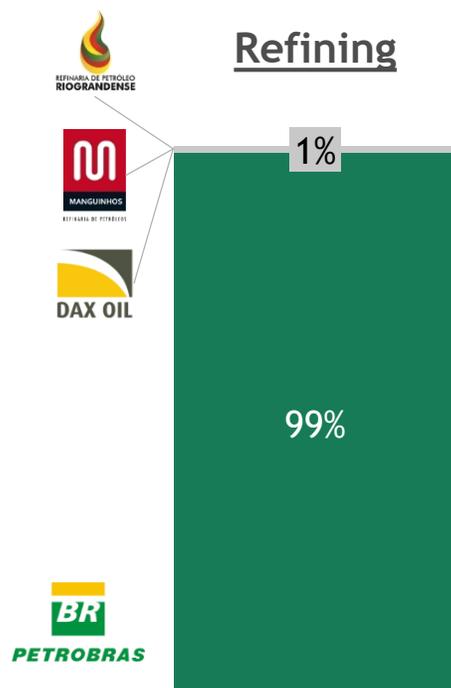
Refining is the only part of the oil chain where few players compete with Petrobras

Exploration and Production

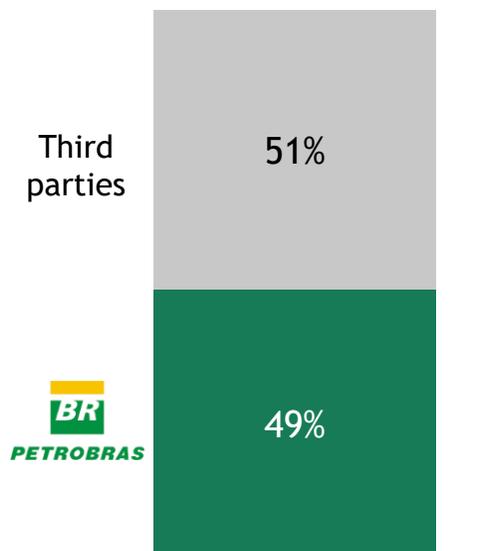


Refining and Import

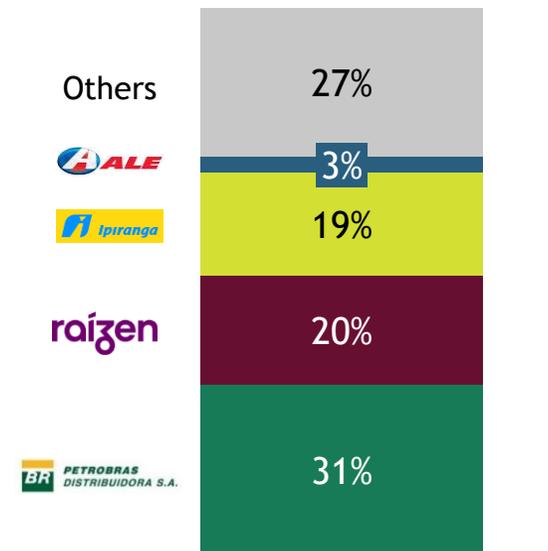
Refining



Import



Distribution



Note: In 2016, the consumption of oil products in Brazil was 778 million barrels of oil equivalent. Of this total, 674 million were produced locally, 178 million were imported and 74 million were exported. Source: Production: ANP, Statistical Yearbook 2016, considers only oil production in '16; Refining: ANP, data referring to '16 collected in March '17; Distribution: Sindicom, considers all fuels, data '16 collected in May '17

Market in Brazil has unique structural advantages for refiners



Seventh largest fossil fuel market

2.3 Mbpd in 2017



Growing trend, as opposed to more mature markets

+ 1.8%/year until 2030



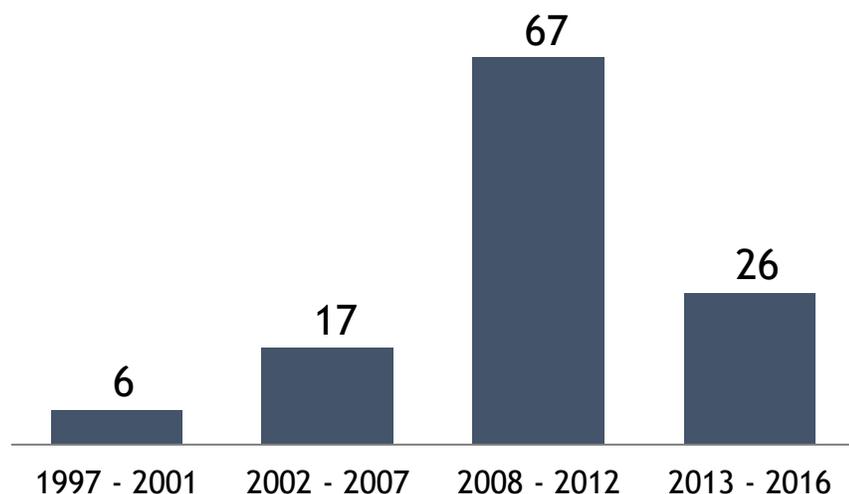
Exporter of crude oil and importer of fossil fuel, with logistics constraints

High margins

Petrobras market dominance brings investment obligation and lack of price predictability

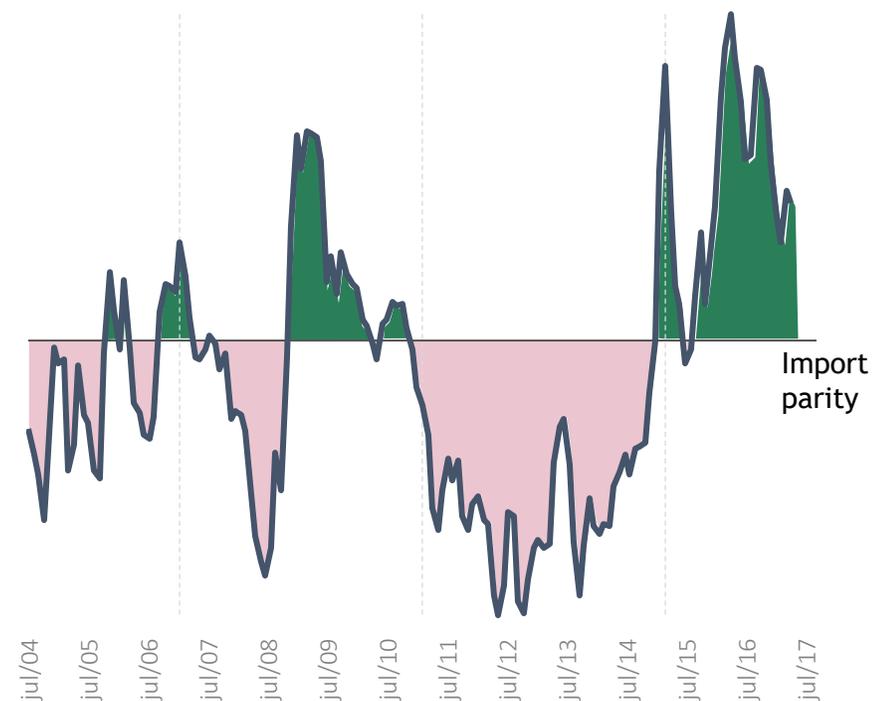
Only investor in refining and primary logistics in Brazil

Petrobras investment in refining in Brazil (US\$ Bn, real values)



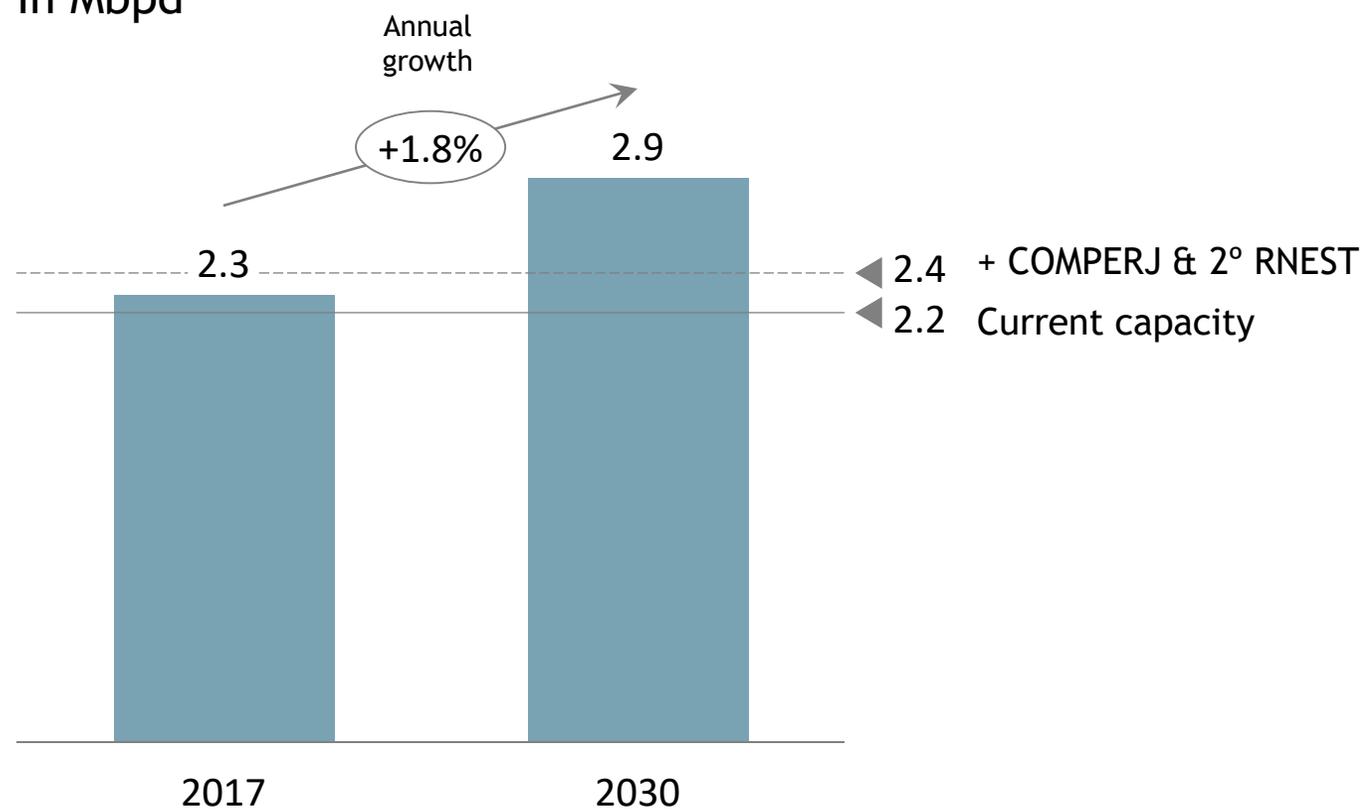
Difficulty to forecast market due to lack of competitive dynamics

Fuel prices vs. import parity in Brazil (R\$/m3)



Fuel demand growth
in Brazil will require
new investments in
refining

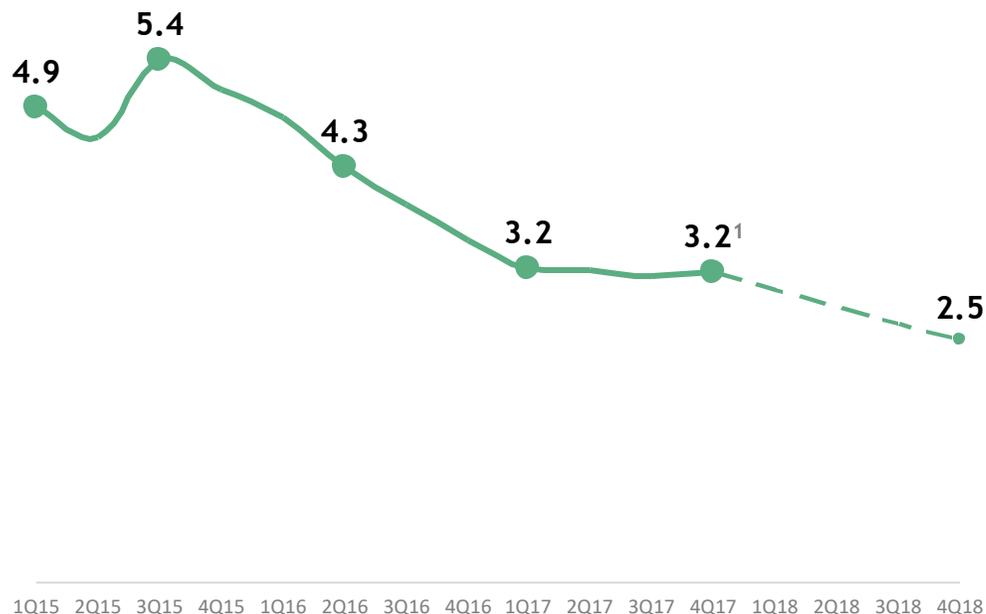
Forecasted fossil fuel demand in Brazil In Mbpd



Since 2010, explosive debt growth has required a deleveraging strategy to fund growth

Debt reduction

Net debt/adjusted EBITDA



Main achievements:

- **Pricing policy:** international price parity, with more frequent adjustments
- **Capex:** greater efficiency in capex allocation
- **Costs:** -10% manageable operational costs vs. 2016
- **Partnerships & divestments:** US\$6.4 Bn in 2017

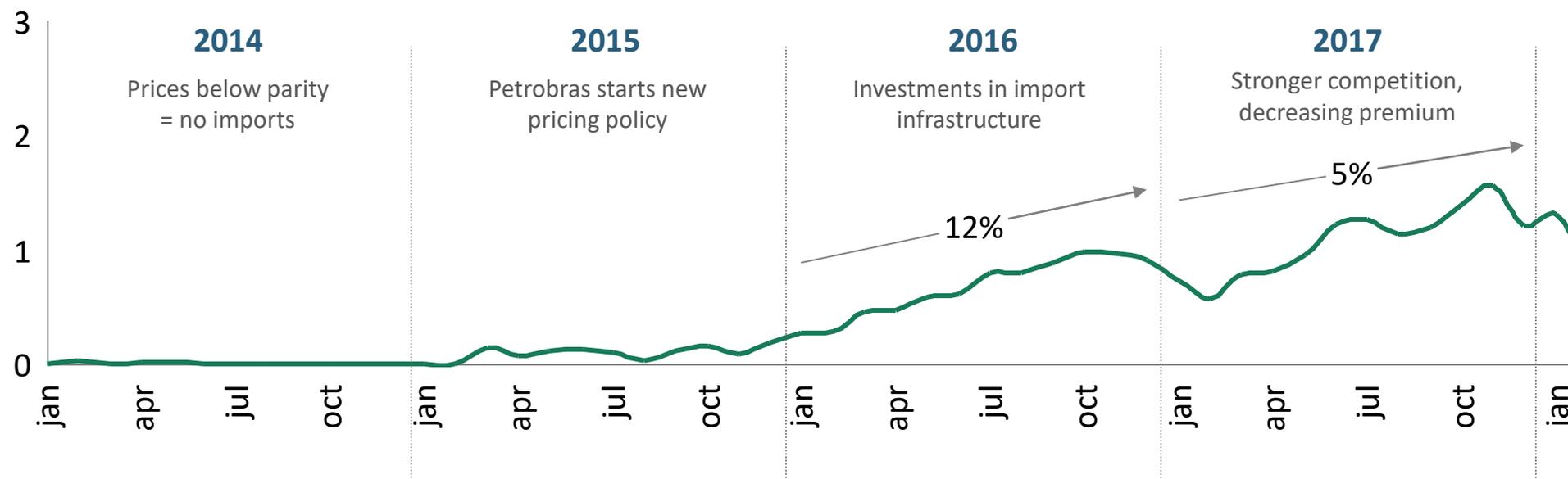
Efforts remain in PNG 18-22:

- By 2022 leverage metric should converge to **the global average** of the main oil and gas companies rated as *investment grade*

1. Excluding collective action agreement

In refining, the first step was to consolidate a competitive pricing policy

Third party imports of diesel (M m³)



Today's premium relies on market dynamics and import/refining balance

Partnerships in refining and logistics are the second step of this repositioning, in line with Petrobras Strategic Planning



Deleveraging and
cash generation



Contribution
to competitive
market dynamics



Sharing of
investment
responsibility



Establishment
of new operational
efficiency benchmarks

... and open space to discuss two complementary paths for the future



Revitalization of
remaining park

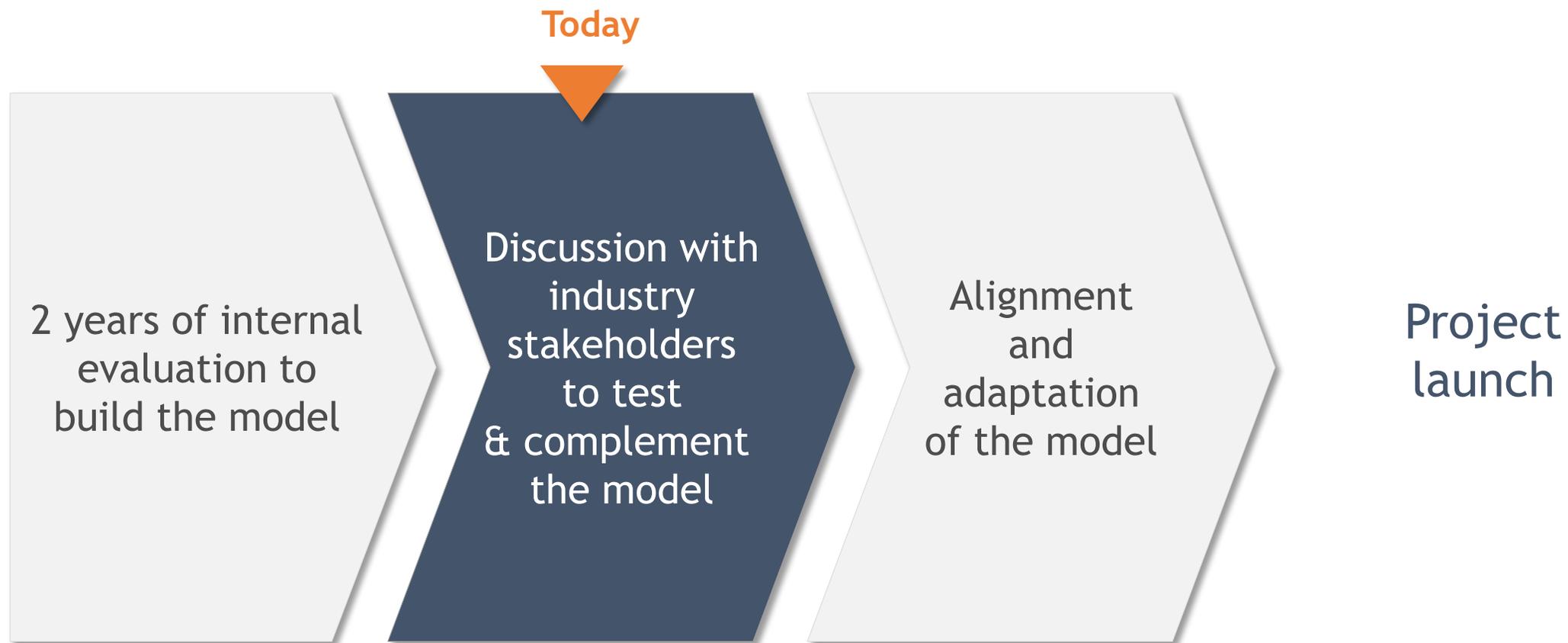


Preparation for a future
based on a low-carbon economy

Proposed model for partnerships in refining



A long internal evaluation that today is mature enough to be debated with industry stakeholders



Nothing is decided yet - today's goal is to present the proposal to listen and gather opinions

This reflection starts with Petrobras Strategic Planning

Our vision:

“An integrated energy company focused on oil and gas that evolves with society, creating high value, with a unique technical capability”

High value creation

Efficient integration

Energy, with focus on oil and gas

Evolves with society

Technical capacity

“Reduce Petrobras’ E&P, Refining, Transportation, Logistics, Distribution and Sale risks through partnership and disinvestments”

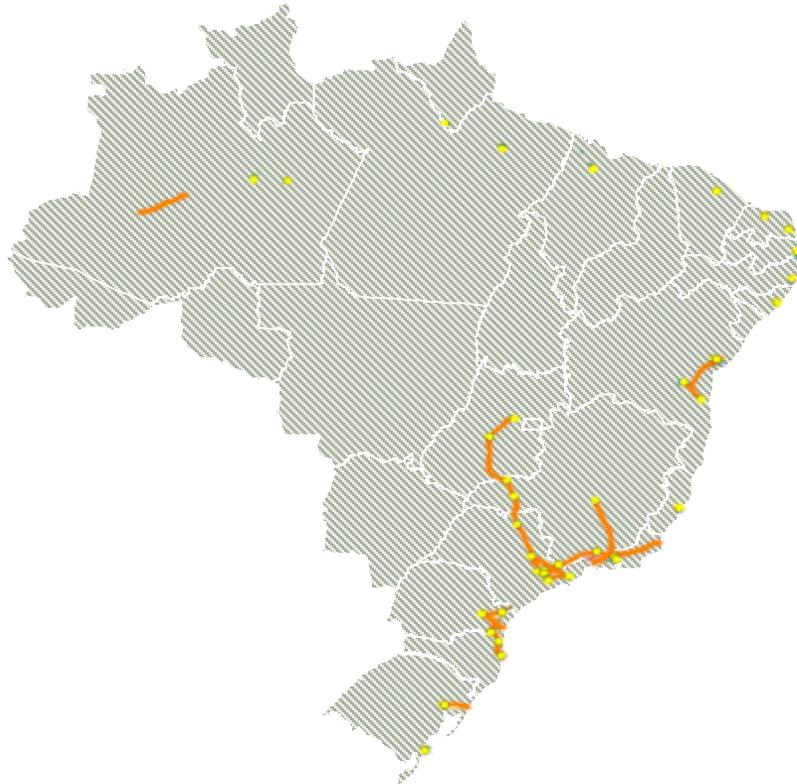
...and seeks to
address the following
questions

- 1 Create a partnership covering all refineries, or just part of them?
- 2 Create a partnership only in refining, only in logistics, or with both?
- 3 Should Petrobras keep or sell control over operations of the assets?

1 Create a partnership covering all refineries, or just part of them?

Model is based on regional blocks to foster competition and maximize value capture

Partnership covering all refineries maintains market concentration and does not foster competition



Regional blocks allows stronger market dynamics and reduces risk of predatory competition

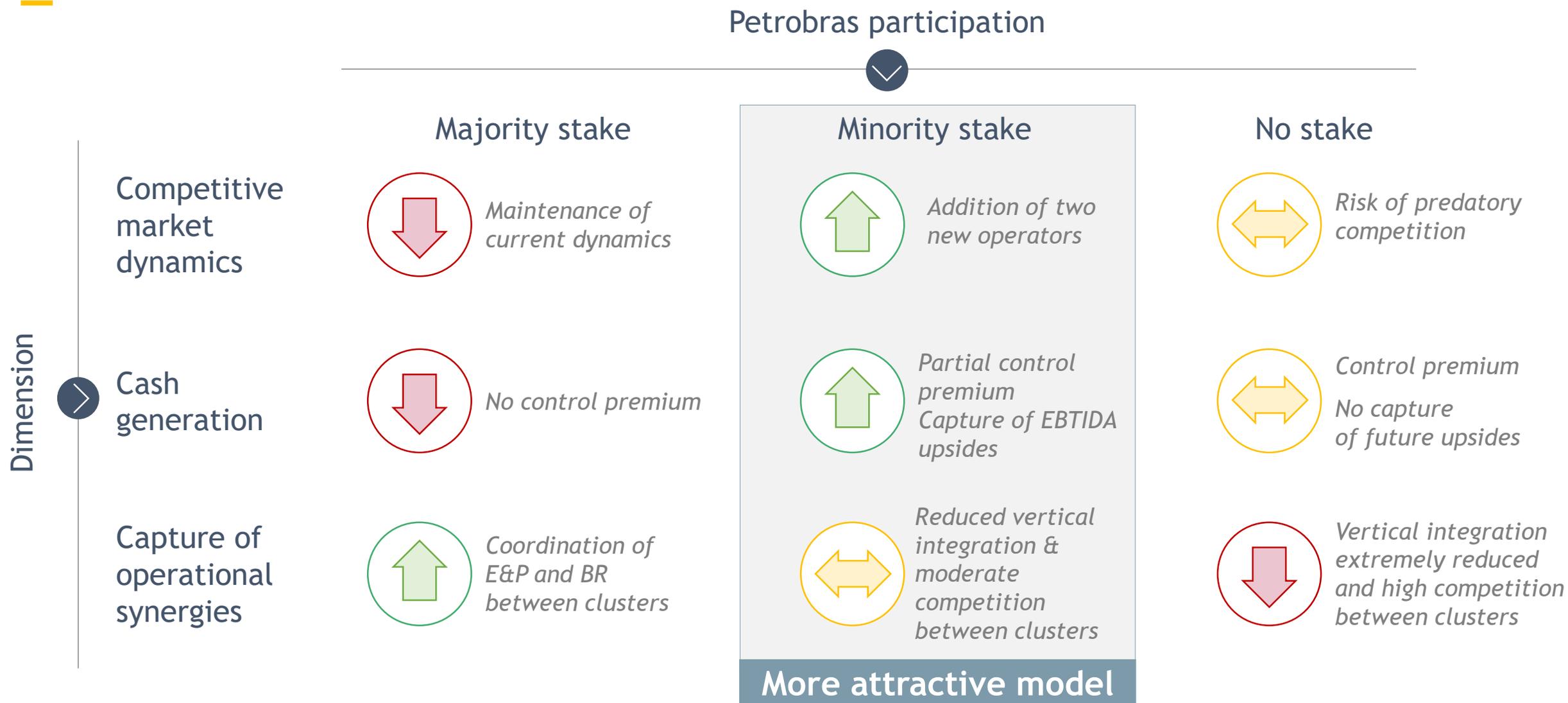


More attractive model

Design preserves the principle of value chain integration, protecting the privileged advantages of Brazilian market

		Standalone logistic assets	Standalone refinery assets	More attractive model
Pricing	➤	Dependent on commercial capabilities and insertion	Limited price-setting power vs. Petrobras	Strong price-setting power (regionally)
Margins	➤	Driven by tariff and volume throughput	Limited to refining process	Capture of integrated margin
Access to market	➤	Sustained access to the market	Dependent on third party logistics	Privileged access to regional market
Investment stimulus	➤	Only in logistics	No major incentives	Logistics and refining
Competition	➤	Exposed to variances in local fuel demand and imports	Exposed to strong competition from incumbent player	Still exposed to large incumbent player (to a lesser degree)

Model with transfer of control seems more attractive to achieve project strategic objectives



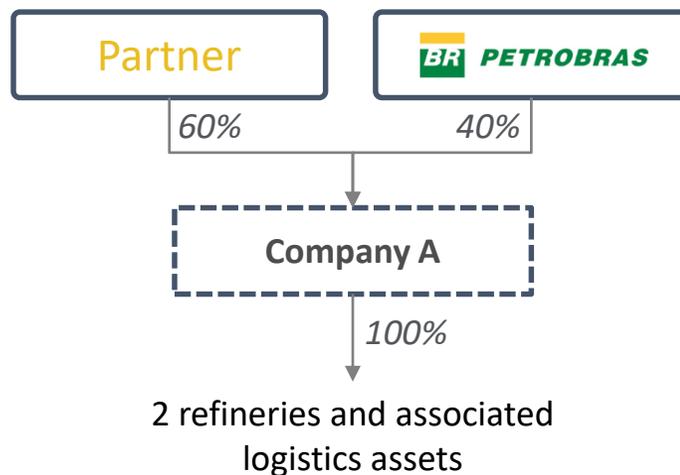
Petrobras proposed model consists in partnerships in 2 regional blocks of relevant size



	Northeast	South
Refineries	RNEST and RLAM	REPAR and REFAP
Processing capacity	430 kbpd	416 kbpd
% of total refining capacity	19%	18%
Pipelines	2 of crude oil 13 of fuels	9 pipelines
Terminals	3 inland 2 waterway	3 inland 4 waterway
Other aspects	RNEST 2 nd unit	Mature market

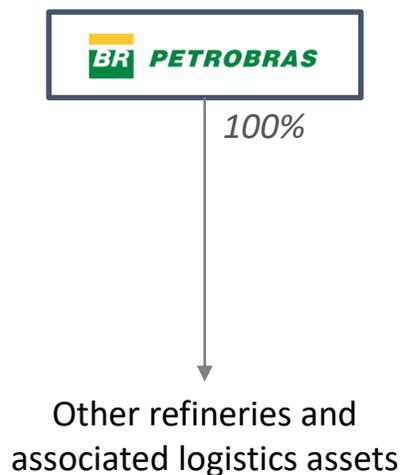
In this model, partner controls operation, while Petrobras continues to hold 75% of the market

Northeast partnership



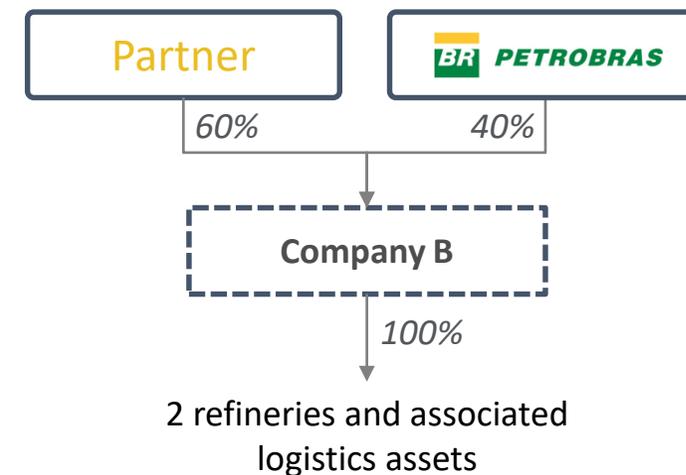
2 refineries
5 terminals

Petrobras



9 refineries
36 terminals

South partnership

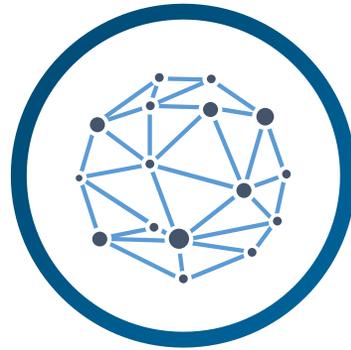


2 refineries
7 terminals

Model guarantees sound partnership opportunities in a dynamic and attractive market



Relevant size
in the market



Access to
integrated clusters



Value levers
management

A competitive and transparent process, in line with new divestment system

Objectives



Ensure competitiveness



Favor transparency aligned with new divestment system

Process for partnership

- Competitive process with market disclosure
- Simultaneous process for the two blocks
- Different partners for each block

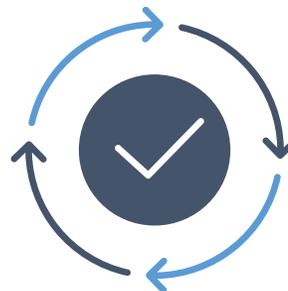
Business environment is evolving, and some topics require specific attention



*Regulatory and
fiscal stability*



*Harmonization
of oil & gas and
biofuels chains*



*Tax
simplification*



*Fight against
fraud and anti-
competitive
standing*

A wide-angle photograph of an industrial refinery at sunset. The sky is a vibrant orange and yellow, with the sun low on the horizon. Silhouetted against the bright sky are numerous tall distillation columns, towers, and complex piping structures. In the foreground, several large, cylindrical storage tanks are visible, their forms softened by the low light. The overall scene conveys a sense of industrial activity and scale.

Thank you!