





PETROLEUM REFINING IN BRAZIL: STATE DIVESTMENT AND COMPETITION ISSUES

Bruno Valle de Moura, M. Sc. Karine A. de Siqueira , M. Sc. Abel Abdalla Torres , M. Sc. The views expressed here do not represent an official statement of ANP, but the understanding of the authors.

Topics

- Context
- Barriers to entry and its determinants
- Petroleum refining industry in Brazil
- Introduction of competition in refining activity in Brazil
- Petrobras divestment process
- Concluding remarks



Context – Early years 1953 1995-2002 1975 •End of legal Law n. 2004 Selfmonopoly Monopoly in oil BR sufficiency in •Petrobras IPO refining •ANP's creation PETROBRAS •Petrobras' gasoline •expectation of creation market oriented prices BR PETROBRAS REPJOL **2001** = Repsol buys 30% of Refap (refinery)

Context - Recent years

2002-2016

2016 - 2017

State control + Concentrated market structure = indirect price control at production level

Intransparent pricing policy → poor incentives to investments

2005 – 2015 Petrobras suspended, delayed or canceled investments in refining. 2010 – Petrobras buys Repsol's stake in Refap Petrobras adopted new pricing policies for diesel, gasoline and LPG, considering: •import parity, •margins to offset risks, •more frequent price adjustments.

Context - Refining map

			8th
Map 1.1 - Refining and natural gas processing - 2017	R efinery (State)	2017 Refining capacity (barrel/day)	largest capacity in the world.
	Total Nominal Capacity	2.405.342	1
	Petrobras Nominal Capacity	2.367.075	98,4%
Reman	Riograndense (RS)	17.014	
Urucu I, II, III and IV AM	Lubnor (CE)	10.378	
	Manguinhos (RJ)	14.000	
2017 output = 105 million cubic meters	Recap (SP)	62.898	
of oil products	Reduc (RJ)	251.592	
	Refap (RS)	220.143	
МТ	Regap (MG)	166.051	
•	Reman (AM)	45.916	
25	Repar (PR)	213.853	
	Replan (SP)	433.997	
A Biocapital MG MS o	Revap (SP)	251.592	
Fractionation and Syntesis	Rlam (BA)	377.389	
Norquímica SP	RPBC (SP)	169.825	
Copape Caraguatatuba Shale Pro	∝RPCC (RN)	44.658	
Braskem Recap I, II and III DPP Caraguatatuba	Rnest (PE)	115.009	
RPBC RPBC NGCPP RS	Fasf (BA)	3.774	
	Univen (SP)	5.158	
Source: ANP/SPC.	Dax Oil (BA)	2.095	

Barriers to entry and its determinants – Theory

- Microeconomics: barriers to entry elevate prices above marginal cost.
- Sources of barriers: absolute cost advantages, consumer preferences and economies of scale.
- Crude oil prices and large minimum efficient scale are examples of barriers to entry in refining industry.
- Access to cheap crude oil inducts to vertical integration.
- However, fuel transport costs are high and its increase due to scaling up of the plant may cancel out the economies of scale of production. Thus, economies of scale in production and distribution costs should be considered together.

Petroleum refining industry in Brazil – Pricing

• Reduced margins due to:

- qualitative and quantitative changes in demand,
- higher costs related to pollution controls (sulphur content, for example) and
- competition from alternative fuels.
- At many times in the period 2002–2016, fuel prices were restrained by government interference, through shareholding control of Petrobras and its dominance in the sector.
- Lack of transparency and predictability in relation to pricing makes it impossible for an incoming company to calculate the adequate rate of return on a capital intensive and long term maturing investment, as required in the refining segment.

Introduction of competition in refining activity in Brazil – Paths

- Non-mutually exclusive alternatives:
 - the entry of new agents into refining by building new plants (greenfield);
 - 2. the imports of oil products; and
 - 3. the acquisition of (shares of) Petrobras' refineries by other companies (brownfield).

Introduction of competition in refining activity in Brazil *Pricing is crucial*

- After Petrobras' new pricing policy, its share of imported gasoline fell from 83.7% in 2015 to 21.4% in 2017. As for diesel, the reduction in the period was even more pronounced: 84.2% to 4.3%, on the same basis of comparison. In 2018, due to the introduction of temporary government subsidies for diesel, following a national truck drivers strike, Petrobras' market share has widened again.
- The multiplicity of agents in the import segment is directly linked to the differential of domestic and international prices in the short term. In the longer run, however, predictability around the monopolist's pricing policy guidelines, as well as other aspects of its conduct, such as contractual models employed, may affect investments in infrastructure expansion.

Petrobras divestment process Origins

2014-2017

2015-2018

Plunge in oil prices + Corruption scandals = •Severe losses



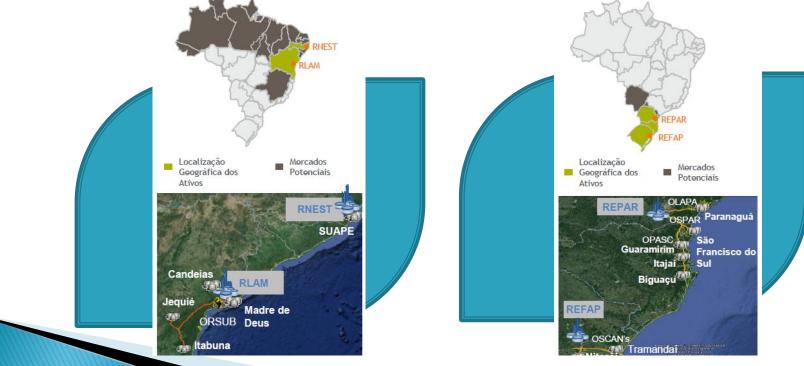
Divestment plans of over US\$ 30 billion

Dec, 2016 – TCU (federal audit office) suspends the sale process.

Mar, 2017 – TCU allows continuity of the sale process.

1st Divestment announcement

- Regarding the third alternative to the introduction of competition, Petrobras announced in April 2018 the opening of the process of selling 60% of its interest in refining and logistics assets in the Northeast and in the South.
- The sales model included the creation of two subsidiaries to gather the assets that would be negotiated in these regions which include refineries, pipelines and integrated terminals and waterway and inland terminals.



Petrobras divestment process

Apr, 2018

Dec, 2018

Apr - May, 2019

First announcement of divestment in refining: •2 clusters

Jul, 2018 – STF (supreme court) suspends the process.

NT N^o 37/2018/DEE/CADE The competition authority issues a Technical Note, suggesting criteria for divestment. •In parallel, Cade opens an investigation of Petrobras' conduct.

Second announcement of divestment in refining: •8 refineries

Res. CNPE n. 9 National Council for Energy Policy establishes guidelines for the promotion of free competition in the refining activity.

2nd Divestment announcement

- The company intends to sell 8 refineries in four different regions of the country:
 - Refinaria Abreu e Lima;
 - Unidade de Industrialização do Xisto;
 - Refinaria Landulpho Alves (RLAM);
 - Refinaria Gabriel Passos (REGAP);
 - Refinaria Presidente Getúlio Vargas (REPAR);
 - Refinaria Alberto Pasqualini (REFAP);
 - Refinaria Isaac Sabbá (REMAN);
 - Lubrificantes e Derivados de Petróleo do Nordeste (LUBNOR).

CNPE Ordinance n. 9/2019

- *Resolução nº 9* of the National Council for Energy Policy was published on May 14, 2019.
- In the event of a divestment decision, carried out by companies holding a dominant position in the refining sector, the following guidelines for the promotion of free competition shall be observed:
 - I concomitant sale of refineries and respective infrastructure assets required for the transport/transfer of their inputs and products;
 - II transfer of potentially competing refineries to different economic groups;
 - III transfer of refining assets without keeping shareholding in these ventures; and

 IV – transfer of assets related to transport of inputs and products, preferably to unverticalized economic groups, considering the relevant market, observing ANP's regulation for third party access.

Introduction of competition in refining activity in Brazil

- The divestment generates:
 - expectations on the possibility of reducing concentration and promoting unbundling,
 - concerns derived from the way in which it will be conducted.
- Main concerns of Competition Authority (CADE):
 - By alienating 60% and maintaining the remaining 40%, the result may be an increase in the possibility of coordinated action, not a reduction. In addition, it can generate a vertical integration reinforcement, which would lead to a concern of foreclosure and discrimination, among other anticompetitive conduct.
 - If the asset is acquired by a player already acting in the market as a competitor or in another vertically related market, the competitive scenario would depend on the structure of the markets involved and the performance of that agent in those markets.
 - If the asset is sold to one of the major competitors or to a player with significant presence in vertically related markets, either downstream or upstream, the transaction would likely be of concern from a competitive standpoint, requiring a thorough analysis of the impacts of the sale on the market.
 - Post-sale contract relations.

• Petrobras' conduct after divestment.

Concluding remarks

- In the recent period, there was an increase in contestability in gasoline and diesel markets, through the greater presence of private players in the imports of these fuels.
- No private investment was observed in new refining projects.
- No disposal of existing refining assets was carried out by Petrobras.
- The impacts of the occasional entry of new private investors into the refining activity on the competitive environment of the Brazilian midstream, through the sale of existing assets, depend on the way in which this entry would occur and the consequent commercial relations.
- The net effects on consumers depend not only on competitive results but also on the effects on the industry's efficiency level.

THANK YOU!

Bruno Moura

brunovll@yahoo.com