

STRATEGIC INVESTMENT MEMORANDUM: BRAZIL PALM OIL IMPORT TERMINAL, BUFFER STOCK & PORTSIDE REFINERY

Capturing the 300,000 MT Structural Deficit, Unlocking the 150,000 MT Zero-Tariff Quota & Dominating the Brazilian Domestic Market via Local Vendor Managed Inventory (VMI) & "Pronta Entrega"

TARGET GEOGRAPHY:

Brazil (Paranaguá & Santos Corridors)

TARGET ASSET CLASS:

Bonded Tank Storage / VMI / Port Refinery

ANNUAL ADDRESSABLE DEFICIT:

300,000 MT (~US\$ 320,000,000)

PROJECTED ANNUAL EBITDA:

US\$ 14.5M - US\$ 22.0M

DATE & VERSION:

September 2026 • Confidential Board Deck

ADVISORY ENGINE:

PORT2040.AI Trade & Terminal Twin

TARGET GLOBAL STAKEHOLDERS:

Wilmar International (Singapore)

Golden Agri-Resources / Sinar Mas (Indonesia/SG)

SD Guthrie / Sime Darby (Malaysia)

IOI Corporation Berhad (Malaysia)

Musim Mas Group (Indonesia/SG)

Fedepalma / Daabon (Colombia)

Brazilian Port Infrastructure PE Funds

01 Executive Summary & The Investment Thesis

Brazil represents one of the world's most resilient and fastest-growing markets for palm oil and vegetable fats, driven by an immense food processing cluster (cookies, bakery, confectionery, ice cream, margarine), personal care/cosmetics (Natura, Unilever, Ypê), and the upcoming mandate for Sustainable Aviation Fuel (SAF) and Hydrotreated Vegetable Oil (HVO) under Brazil's *Combustível do Futuro* federal law.

NATIONAL CONSUMPTION

1,000,000 t

Apparent annual Brazilian demand

DOMESTIC PRODUCTION

700,000 t

Constrained in Pará (283k ha)

INCOMPRESSIBLE DEFICIT

300,000 t

Mandatory annual import requirement

The Core Opportunity: While Brazil produces 700,000 MT/year, **100% of commercial plantations are located in the Northern Amazon state of Pará**, over 3,000 km away from the major consumption centers in São Paulo, Paraná, and Santa Catarina. Because trucking oil from Pará costs upwards of **R\$ 850–1,100/MT (US\$ 155–200/MT)**, ocean parcels shipped from Dumai/Belawan/Klang to Paranaguá or Santos land at a lower freight cost (**US\$ 85–105/MT**).

Currently, international suppliers sell on pure spot CIF terms, requiring Brazilian buyers to endure **35 to 45 days of transit time, foreign exchange volatility, and container/berth demurrage**. An Asian or Colombian producer that establishes a **strategic joint venture with Brazilian port terminal investors** to operate a dedicated heated liquid bulk storage facility or portside refinery will offer **immediate domestic delivery ("pronta entrega") in local currency (BRL)**, effectively capturing the entire 300,000 MT import market and earning an attractive commercial premium.

02 The Brazilian Supply-Demand Deficit & Growth Drivers

According to the 2025 benchmark survey conducted by Agroportal for the Brazilian Palm Oil Producers Association (Abrapalma), Brazil has **283,083.91 hectares** under active palm cultivation (a 38.66% occupancy rate over 732,250 ha of surveyed suitable land across 40 municipalities in Northeast Pará).

PRODUCTION PARAMETER	METRIC (CURRENT BASE)	MARKET IMPLICATION
Effective Planted Area (Pará)	283,083.91 ha	Expansion restricted by Agroecological Zoning (ZAE Palm Decree 7.172/2010)
National Production Capacity	700,000 MT / yr	90% controlled by 10 agroindustries (Agropalma, BBF, BBB, Denpasa)
Domestic Market Demand	1,000,000 MT / yr	Growing at ~4.5% CAGR driven by zero-trans-fat industrial confectionery
Annual Import Requirement	300,000 MT / yr	Equivalent to 20 Handysize parcel tanker voyages (15,000 MT each) per year
HVO / SAF Emerging Demand	+150,000 MT / yr (2027+)	Aviation fuel decarbonization mandates will divert domestic CPO from food

Inelastic Demand: Because palm oil is non-GMO, naturally trans-fat free, and possesses a unique crystallization profile and high smoke point (235 °C), Brazilian industrial food manufacturers cannot easily replace it with soybean oil without compromising product crunchiness, shelf life, and mouthfeel in biscuits and confectionary coatings.

03 The Logistics Paradox: Domestic Road vs. International Ocean

The fundamental catalyst for port-based arbitrage is the severe logistical friction separating the Northern Amazon plantations from the Southern consumer belt:

LOGISTICAL CORRIDOR	MODALITY	TRANSIT DISTANCE	FREIGHT COST (US\$/MT)	FREIGHT COST (BRL/MT)	TRANSIT TIME
Pará → São Paulo / Paraná	Road Tanker (Truck)	2,800 – 3,200 km	US\$ 155 – US\$ 200	R\$ 850 – R\$ 1,100	5 – 7 days
Belém → Santos / Paranaguá	Cabotage (Coaster)	~2,200 nm	US\$ 88 – US\$ 112	R\$ 480 – R\$ 620	12 – 16 days
Dumai/Belawan → Santos/Paranaguá	Ocean Parcel Tanker	~10,500 nm	US\$ 85 – US\$ 105	R\$ 470 – R\$ 580	35 – 40 days
Santa Marta (Colombia) → Santos	Panama / Atlantic Tanker	~4,800 nm	US\$ 65 – US\$ 80	R\$ 360 – R\$ 440	15 – 18 days

Strategic Key: Shifting 15,000 MT of palm oil by sea from Southeast Asia to Paranaguá is **up to R\$ 500/MT cheaper** in transportation than hauling the same volume by truck over Brazilian highways (BR-010 / BR-153) from Tailândia or Moju to São Paulo.

04 The Regulatory Lever: 150,000 MT Zero-Duty Quota

The Brazilian Foreign Trade Chamber (Gecex/Camex) periodically establishes a **150,000 MT tariff-rate quota with 0% Import Duty (alíquota zero)** for refined palm oil (NCM 1511.90.00), reducing the standard Mercosur Common External Tariff (TEC) from 10% to 0%.

STANDARD IMPORT DUTY (TEC)

10.0%

~US\$ 105 / MT tax burden

GECEX QUOTA TARIFF

0.0%

Full tariff exemption

SAVINGS PER VESSEL (15K MT)

US\$ 1.5M

R\$ 8.2 million in tax savings

This regulatory mechanism allows an onshore integrated operator to import refined RBD Palm Oil, Palm Olein, and Palm Stearin with zero customs friction, creating an unassailable landed-cost moat against both unhedged spot importers and domestic northern producers.

05 Why "Pronta Entrega" (VMI / Local Buffer Stock) Wins the Market

Interviews and trade records across Brazilian food, soap, and oleochemical buyers reveal profound friction with the current import model:

✗ Current Pain Points of Brazilian Buyers

- **45-Day Lead Time:** High inventory risk and planning paralysis.
- **USD Currency Exposure:** Local buyers sell in BRL and dread FX swings.
- **Demurrage Risks:** Liquid bulk terminal congestion in Santos costs US\$ 25k/day.
- **Quality Deterioration:** High Free Fatty Acids (FFA) buildup during long voyages.
- **Minimum Order Size:** Only large groups can finance 5,000+ MT shipments.

✓ The Onshore Hub Advantage (Pronta Entrega)

- **Same-Week Delivery:** Truck tankers dispatched within 24–48 hours.
- **Invoiced in BRL:** Eliminates foreign exchange volatility for local buyers.
- **Guaranteed Quality:** Temperature-controlled nitrogen-blanketed tanks.
- **Commercial Premium:** Buyers willingly pay a **US\$ 30–60/MT premium** for flexibility.
- **Broadened Customer Base:** Ability to serve mid-sized manufacturers (50–500 MT/month).

06 Strategic Site Selection: Brazil's Premier Liquid Gateways

PORT COMPLEX	TERMINAL CAPACITY	LIQUID BULK BERTH	PRIMARY INDUSTRIAL CATCHMENT	STRATEGIC RATING
Port of Paranaguá (PR)	Cattalini Terminais (610k m³), APA, Rocha	Dedicated liquid piers (Pier de Inflamáveis), draft 12.8m	Paraná agroindustrial belt (Coamo, Carambeí, Frísia), interior SP, SC	★★★★★ #1 Gateway
Port of Santos (SP)	Alemoa, Barnabé Island, Ultracargo, Stolthaven	Liquid bulk berths with direct rail and highway links, draft 13.5m	Greater São Paulo, Limeira (Agropalma ref.), Jundiaí, Mairinque (Cargill)	★★★★★ Top Volume
Port of Fortaleza / Pecém (CE)	Terminal do Mucuripe & Pecém Liquid Pier	Protected tanker berths, draft 13.0m	Northeast food processing (M. Dias Branco headquarters & mega-factories)	★★★★☆ Regional Champion
Port of Suape (PE)	Deepwater liquid bulk hub, Pier de Granéis Líquidos	15.5m draft, handles large parcel tankers up to 60k DWT	Pernambuco, Paraíba, Alagoas food, oleochemical and soap clusters	★★★★☆ Deep Draft

07 Key Industrial Off-Takers & Mapped Municipal Destinations

Official ComexStat customs data demonstrates concentrated, highly dependable consumption across 35 mapped Brazilian municipalities:

PURCHASING MUNICIPALITY	KEY INDUSTRIAL OFF-TAKERS	PRIMARY PRODUCT DEMAND	RECENT VOLUME (MT/YR)
Campo Mourão (PR)	Coamo Agroindustrial Cooperativa	RBD Palm Oil, Palm Stearin for margarines & vegetable shortening	23,100 MT
Fortaleza (CE)	M. Dias Branco S/A Indústria e Comércio	RBD Palm Olein & Stearin for cookies, crackers, and wafer fat filling	106,600 MT
Limeira & Mairinque (SP)	Agropalma Southeast Refinery, Cargill Agrícola	CPO for refining, interesterified specialty fats, food service	14,200 MT
São Paulo, Jundiaí & Barueri (SP)	Multinational food brands (Nestlé, Mondelēz, Ferrero), Tradings	Refined RBD Palm Oil, Palm Kernel Oil (CPKO) for confectionery	25,300 MT
Maceió (AL) & Recife (PE)	Regional oleochemical and soap manufacturers (Flora, Asa)	Palm Fatty Acid Distillate (PFAD), soap noodles, crude palm oil	61,100 MT
Poços de Caldas (MG)	Danone, Ferrero Rocher Brazil	Specialty fractionated palm stearin with tight melting-point tolerances	1,350 MT

08 Implementation Models: Storage Hub vs. Full Portside Refinery

OPTION A: Dedicated Tank Terminal & VMI Hub

Fastest Time-to-Market · Low Capex

- Long-term lease or development of **25,000 to 45,000 m³** of insulated, steam-heated tanks in Paranaguá or Santos.
- Dedicated pipeline to liquid berth; automated road-tanker loading racks.
- Import refined RBD Palm Oil under the 150k t Zero-Tariff Quota.
- **CAPEX:** US\$ 8M – US\$ 14M (or zero CAPEX via terminal take-or-pay lease).
- **Implementation Timeline:** 4 to 8 months.

Target EBITDA: US\$ 12.0M – US\$ 16.5M / year

OPTION B: Portside Physical Refinery & Fractionation Plant

Maximum Value Capture · Industrial Moat

- 600–1,000 MT/day continuous physical refining & dry fractionation plant adjacent to the port.
- Import lower-cost Crude Palm Oil (CPO NCM 1511.10.00) and fractionate into customized Olein (IV 56-64) and Stearin (IV 32-36).
- Direct supply to multinational confectionery, food, and biodiesel clients.
- **CAPEX:** US\$ 38M – US\$ 55M (Joint Venture with Brazilian infrastructure partners).
- **Implementation Timeline:** 18 to 24 months.

Target EBITDA: US\$ 18.0M – US\$ 25.0M / year

09 Unit Economics & Arbitrage Financial Projections

The financial model below evaluates the unit economics per metric ton under a baseline operation of **150,000 MT/year** (utilizing the zero-duty quota):

ECONOMIC METRIC	DIRECT SPOT CIF IMPORT	ONSHORE VMI BUFFER STOCK (OPTION A)	PORTSIDE REFINERY (OPTION B)
Raw Material / CIF Origin Cost	US\$ 1,058.50 / MT	US\$ 1,058.50 / MT	US\$ 995.00 / MT (CP0)
Import Tariff (Zero-Duty Quota)	US\$ 0.00 (0%)	US\$ 0.00 (0%)	US\$ 0.00 (0%)
Port Handling, Tankage & Terminal Opex	US\$ 28.00 / MT	US\$ 38.00 / MT	US\$ 55.00 / MT (Refining)
Total Landed / Processed Cost (USD)	US\$ 1,086.50 / MT	US\$ 1,096.50 / MT	US\$ 1,050.00 / MT
Realized Selling Price (BRL / MT)	R\$ 6,450 / MT (Spot)	R\$ 6,750 / MT (+Premium)	R\$ 6,900 / MT (Fractions)
Realized Selling Price (USD @ 5.50 FX)	US\$ 1,172.72 / MT	US\$ 1,227.27 / MT	US\$ 1,254.54 / MT
Net Margin Spread (US\$ / MT)	US\$ 86.22 / MT	US\$ 130.77 / MT	US\$ 204.54 / MT
Annual EBITDA (150,000 MT Throughput)	US\$ 12.9M / yr	US\$ 19.6M / yr	US\$ 30.6M / yr

10 Strategic Partnership Architecture with PORT2040.AI

PORT2040.AI operates as the premier maritime intelligence and digital twin platform for Brazilian and Middle Eastern/Asian commodity corridors. Through our proprietary real-time vessel schedules, customs analytics (ComexStat), metocean telemetry, and commercial capture engines, we provide global agricultural leaders with an unfair competitive advantage:

1. Real-Time Cargo Line-Up & Vessel Twin

Live monitoring of parcel tankers arriving from Asia, berth line-ups, draft restrictions (PIANC), and demurrage prevention.

2. Terminal Deal Sourcing & EVTEA Modeling

Direct matchmaking with licensed terminal concessionaires (TUPs) in Paranaguá and Santos, regulatory modeling (Antaq/RFB).

3. Domestic Off-Taker Commercial Introductions

Structured introduction to leading Brazilian buyers (cooperatives, biscuit titans, confectioners) for forward supply agreements.

Initiate Executive Discussion & Request Data Room Access

To schedule a confidential bilateral boardroom briefing, customize simulation parameters, or connect with Brazilian port infrastructure partners:

 **Contatar Equipe Estratégica PORT2040.AI**

 **Acessar Simulador Interativo Online**

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