

The Panama Canal: Connecting World Trade



CANAL DE PANAMÁ

March 5, 2020



Agenda

The business environment of the Panama Canal

Performance

The Panama Canal and global maritime trade

Challenges ahead



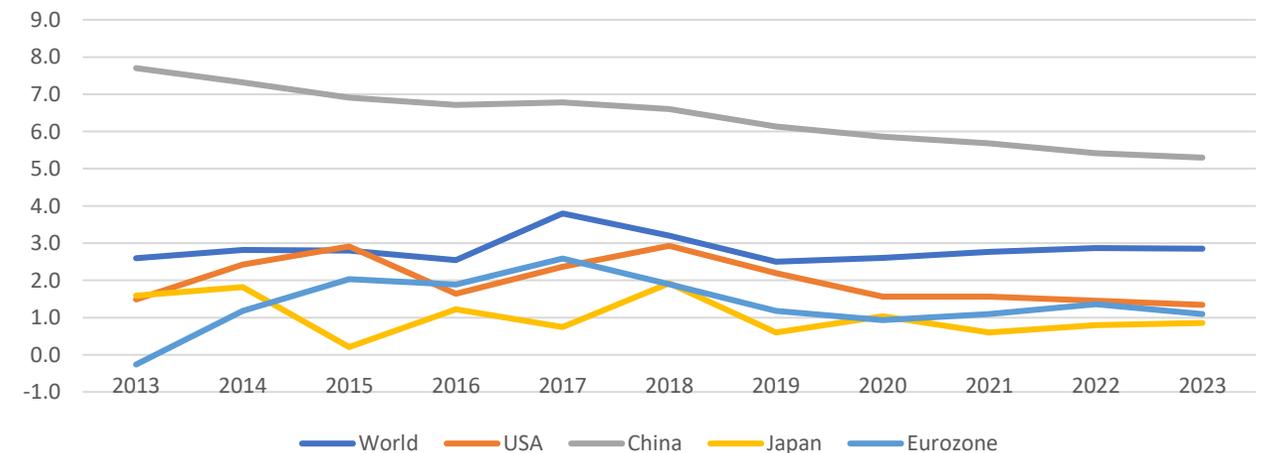
Macroeconomic Outlook 2021 and GDP Growth of Relevant Countries and Regions

- Global economic growth decelerated in 2019 to an average of 2.5% from 3.2% in 2018. For 2020, it is expected to increase to 2.6% to maintain an average of 2.8% between 2021 and 2023.
- The signing of the Phase One deal, the USMCA and Brexit, have reduced investor uncertainty to some extent.
- Coronavirus will reduce growth in 2020, but a recovery is expected for 2021.
- Global trade slowed down from 3.1% in 2018 to 1.5% in 2019. It is projected that for 2020, it will grow at an average of 2.4% and will remain at 3.1% between 2021 and 2023.
- International trade will stay slow and marginally above the global GDP average growth rate.
- Economic growth for countries relevant to the Panama Canal has also slowed down from an average of 3.3% in 2018 to 2.5% in 2019. It is expected to keep an average growth rate below 2.4% until 2023.

Global GDP and trade average growth rates

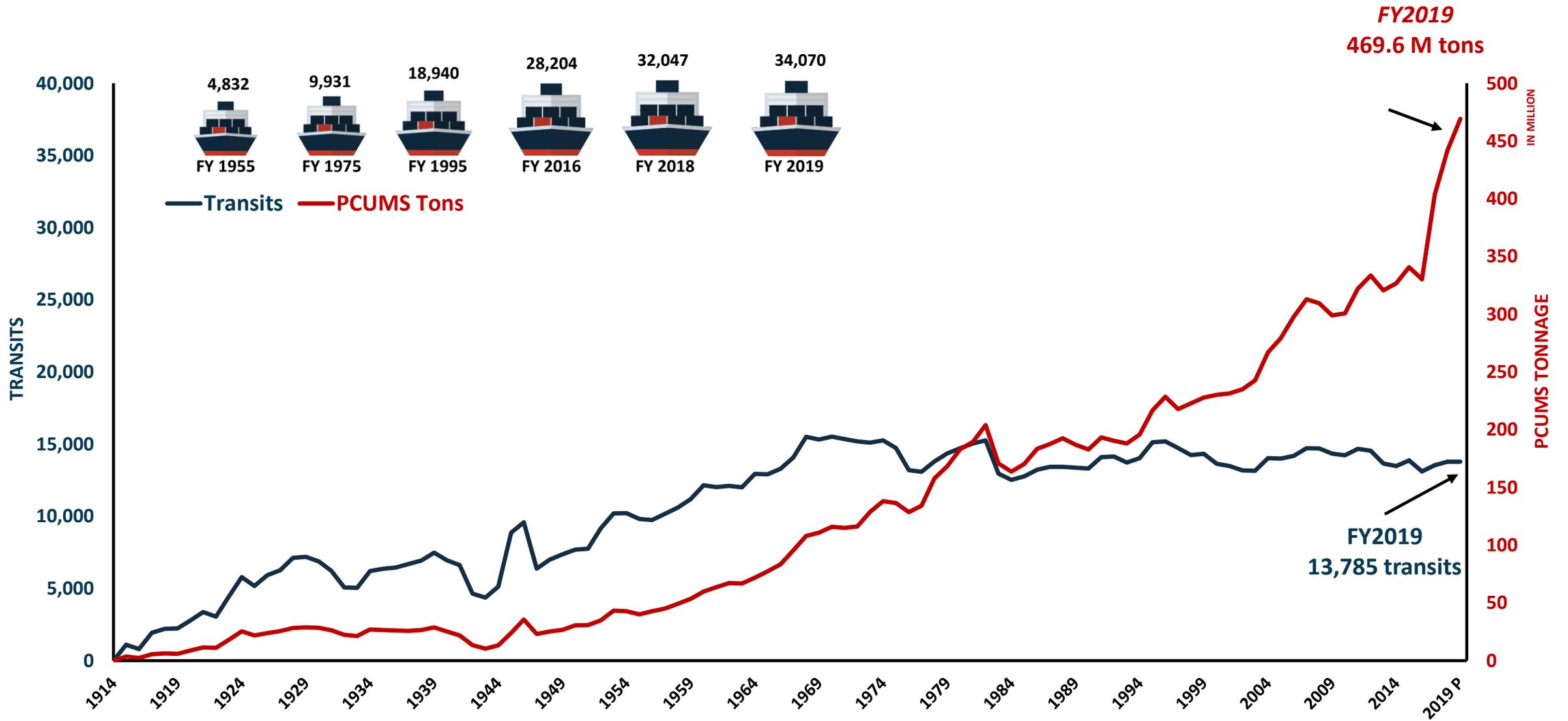


Economic Growth of Selected Countries and Regions



Source: Average of forecasts from IHS Markit, Economist Intelligence Unit, World Bank, IMF, OCDE, January 2020.

Transits and PC/UMS Tonnage

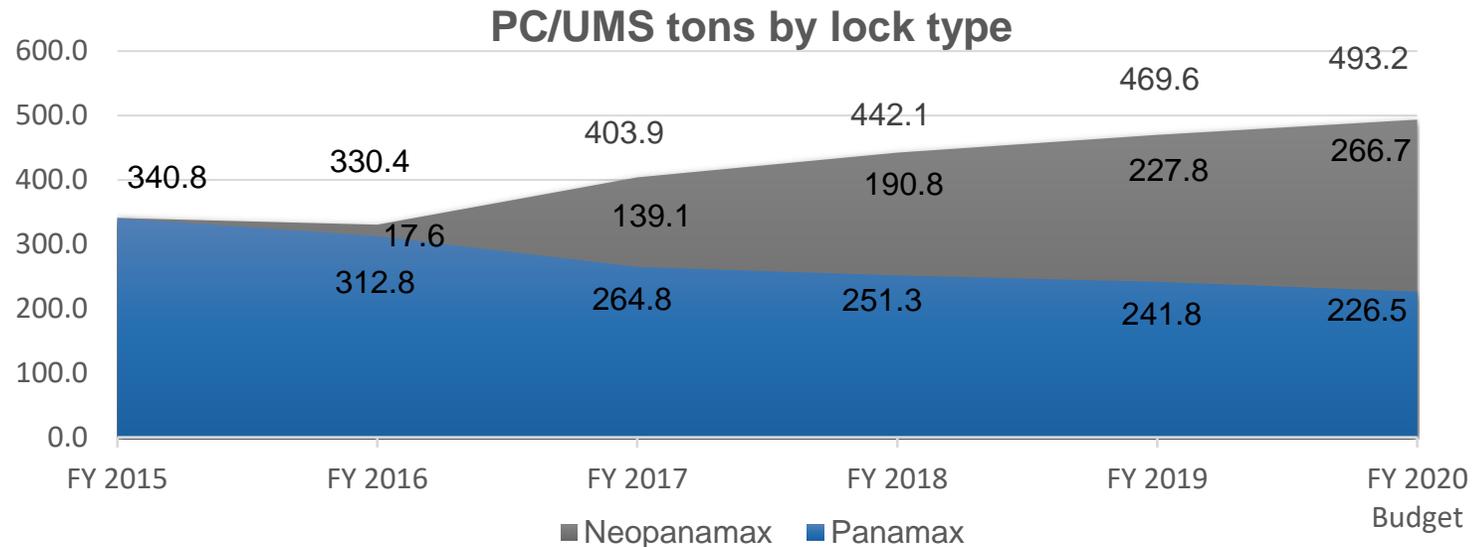


PC/UMS: Panama Canal Universal Measurement System

The Panama Canal: Performance

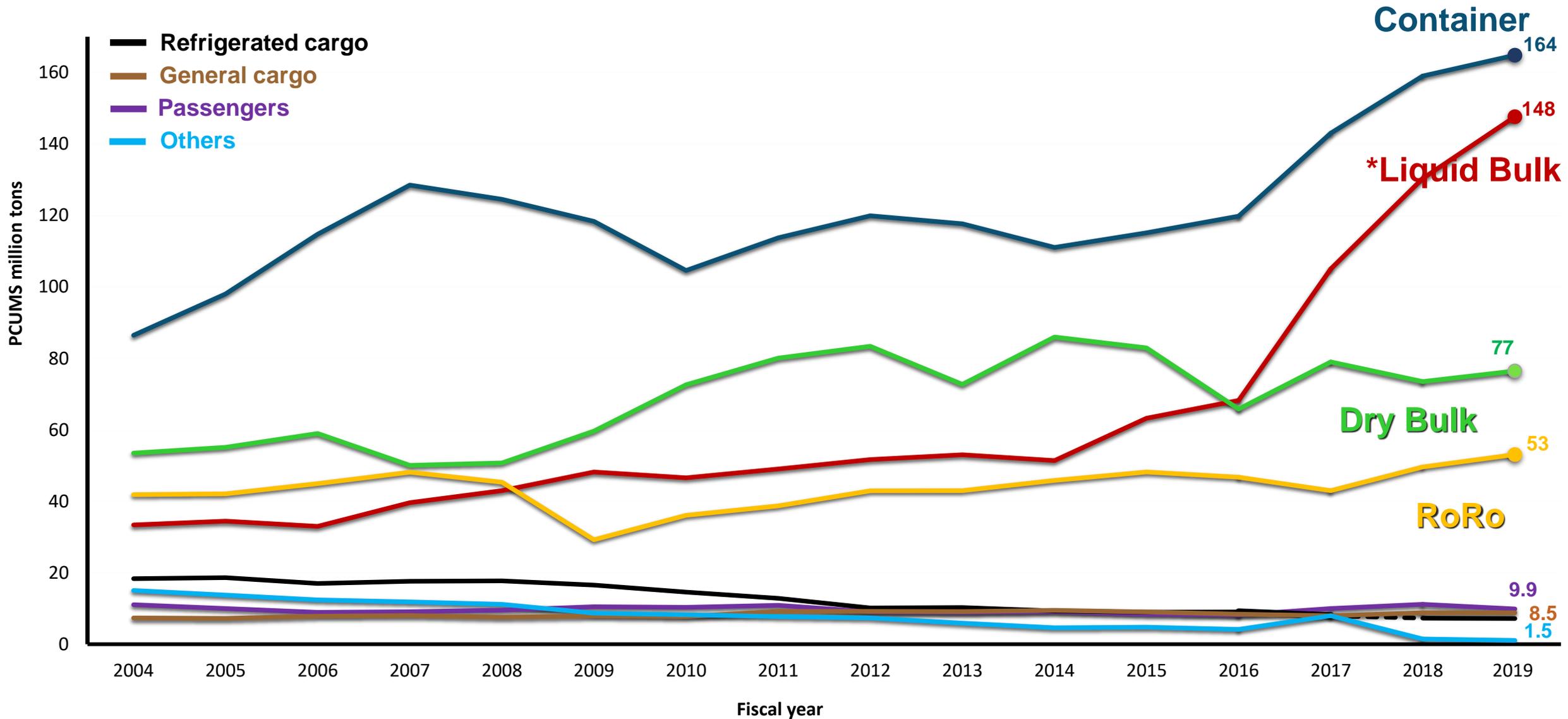
**FY 2019 ended with a record tonnage:
+6.2% increase compared to FY 2018**

13,785	469.6M	34,070	16.7M	10.6M	252.4M
Transits -0.1%	PC/UMS tons +6.2%	Avg. vessel size (PC/UMS) +6.3%	TEU capacity +4.3%	TEU loaded +4.4%	Cargo tons -1.0%



Source: Panama Canal database

PC/UMS Tonnage per Market Segment



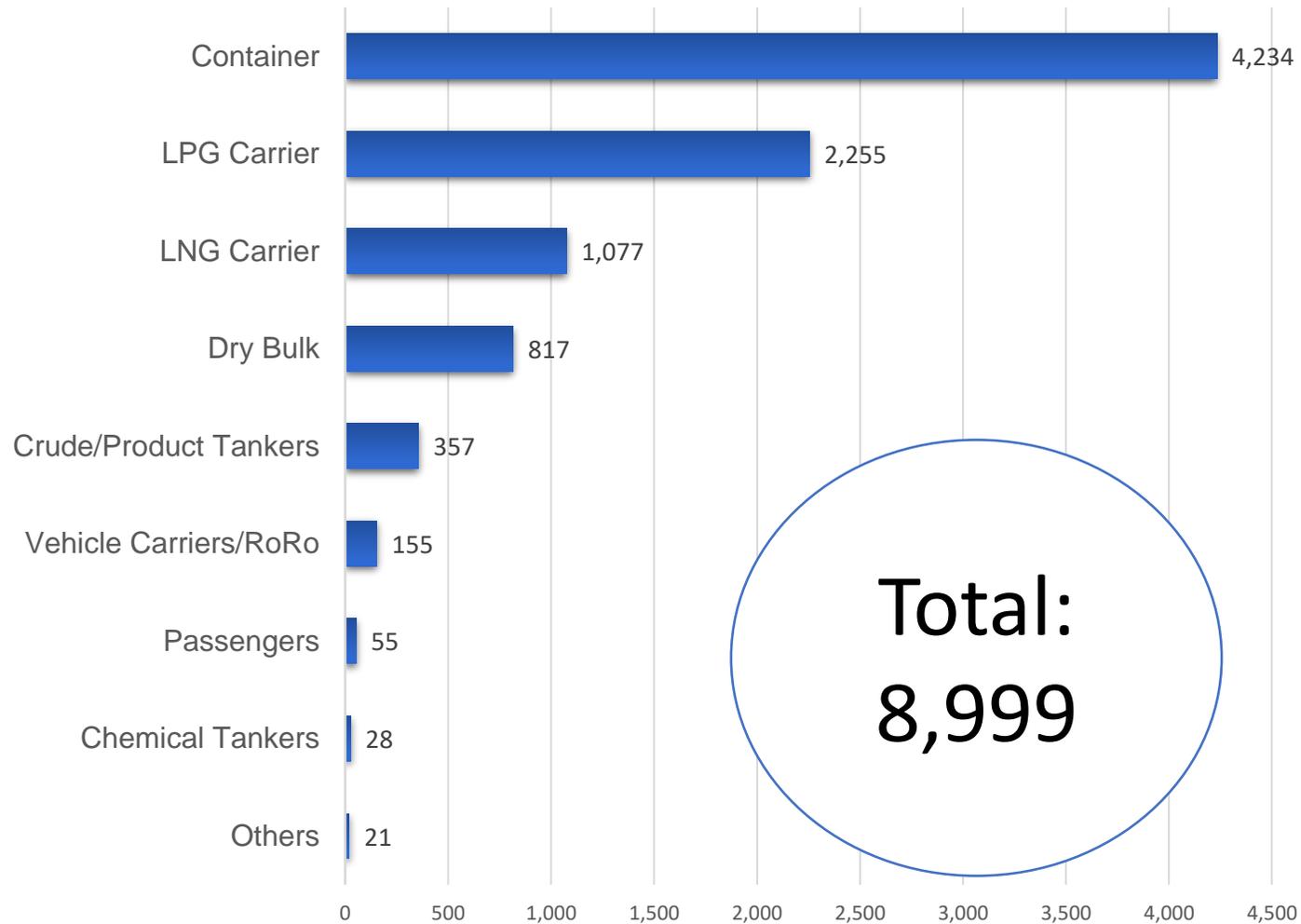
PC/UMS: Panama Canal Universal Measurement System

*Liquid bulk includes LPG and LNG

Full Containerships are the main users of the Neopanamax locks



March 4, 2020



The Panama Canal and Global Maritime Trade

- 3.0% of global seaborne trade
- 18.0% LPG
- 6.3% grain
- 5.4% petroleum products
- 3.4% Chemicals
- 3.1% containers
- 2.5% LNG

1915 – 2019
Transits: 1,122,137
Cargo Volume: 10,8 Mn TL



Relevance of the Panama Canal for Latin American Countries

Percentage of seaborne trade that uses the Panama Canal



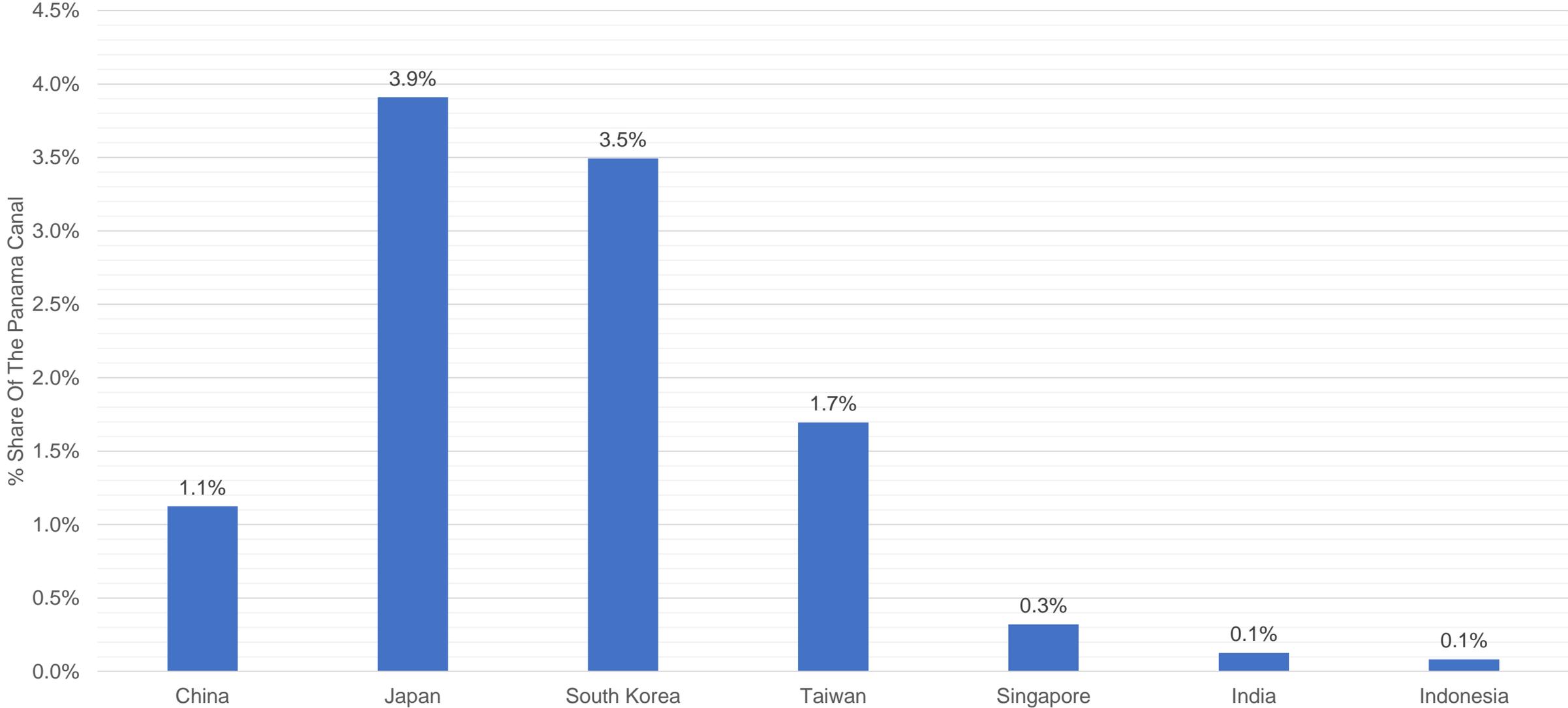
The Panama Canal and Panama's ports system serves not only imports and exports from Panama, but also offers a logistics platform for the Latin American region.



Source: IHG Global Trade Navigator, January 2020.

Percentage of Seaborne Foreign Trade of Selected Asian Countries – 2019

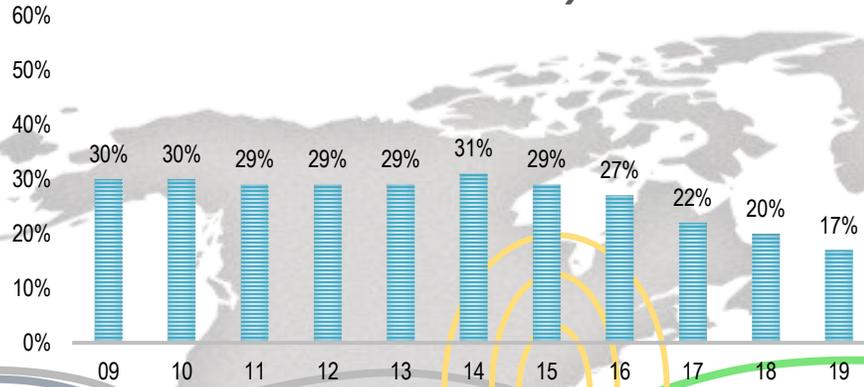
(seaborne trade measured in metric tons)



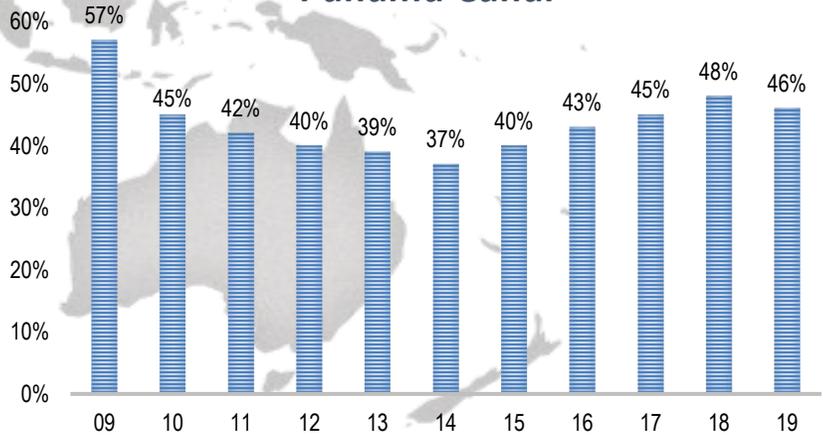
Source: IHS Global Trade Navigator, ACP

Panama Canal Market Share (Container) – Northeast Asia to East Coast of the United States

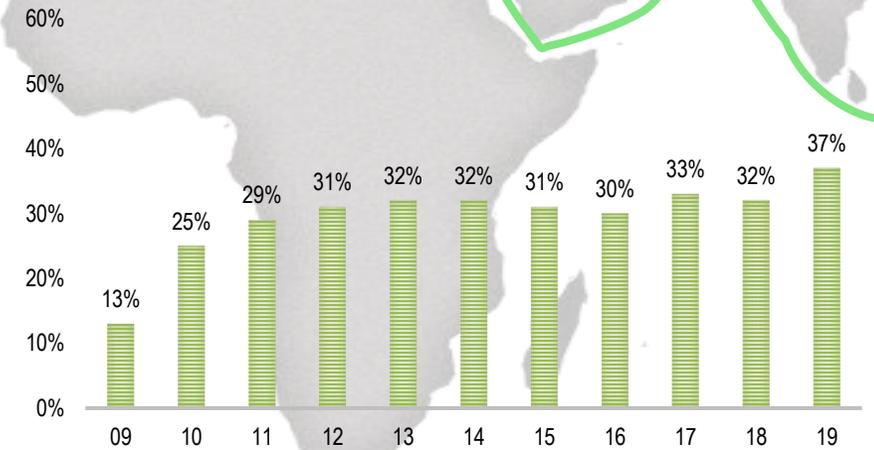
U.S. Intermodal System



Panama Canal

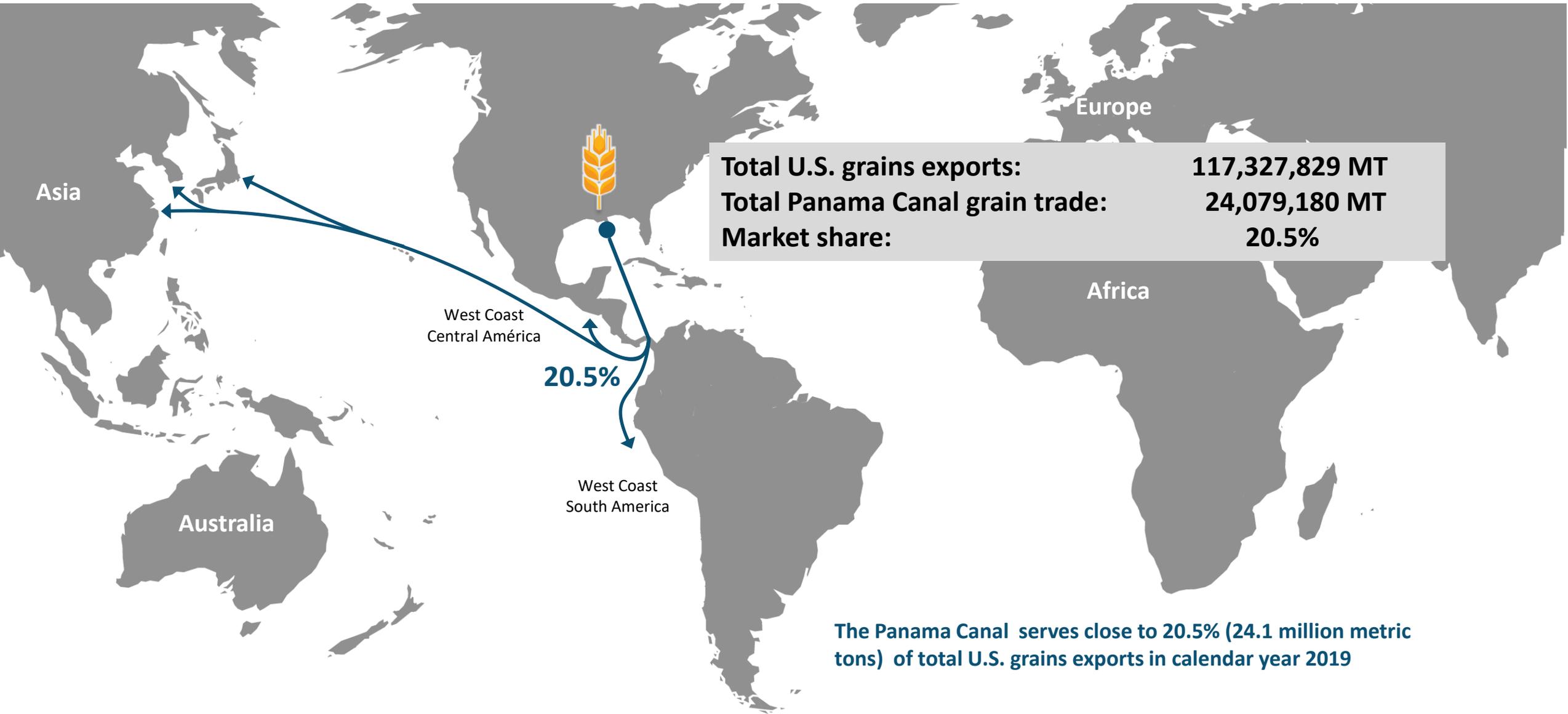


Suez Canal



Total U.S. Grain Exports (Calendar Year 2019): 117.3 M ton

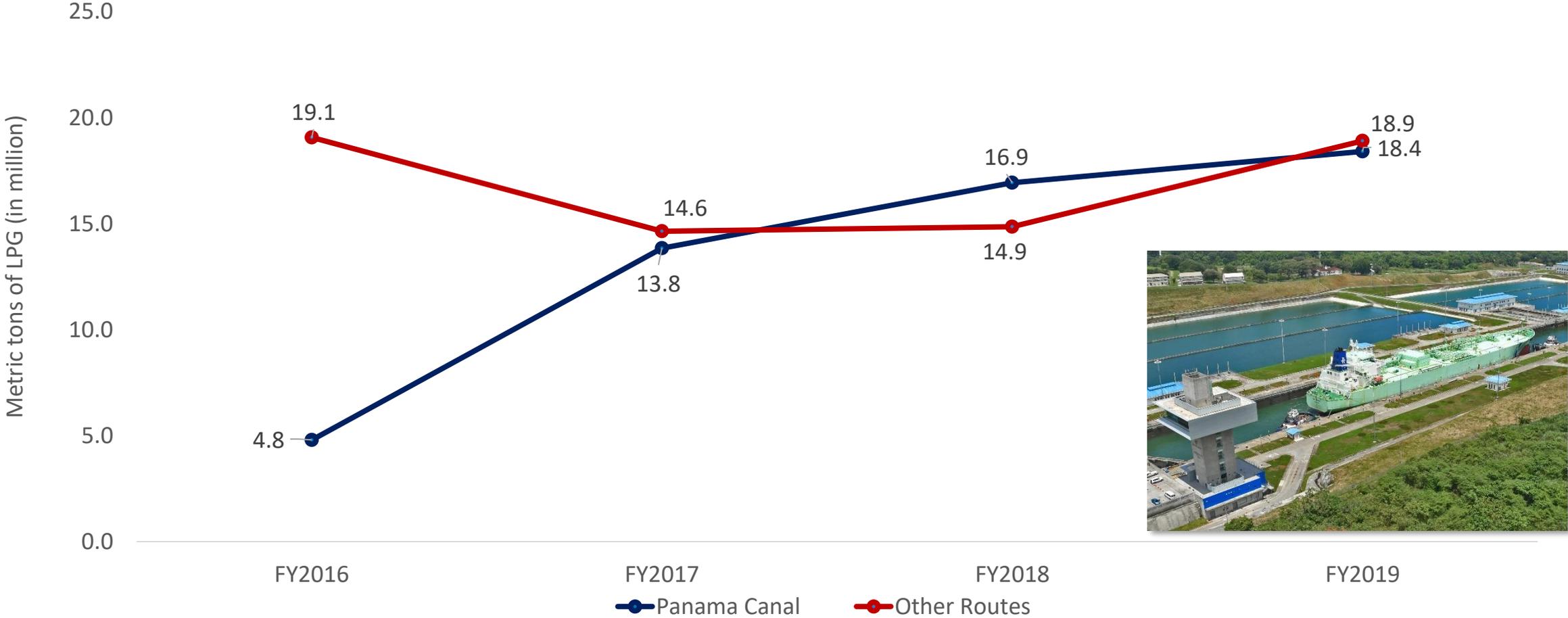
The Panama Canal serves close to 20.5% of total U.S. grains exports



The Panama Canal serves close to 20.5% (24.1 million metric tons) of total U.S. grains exports in calendar year 2019

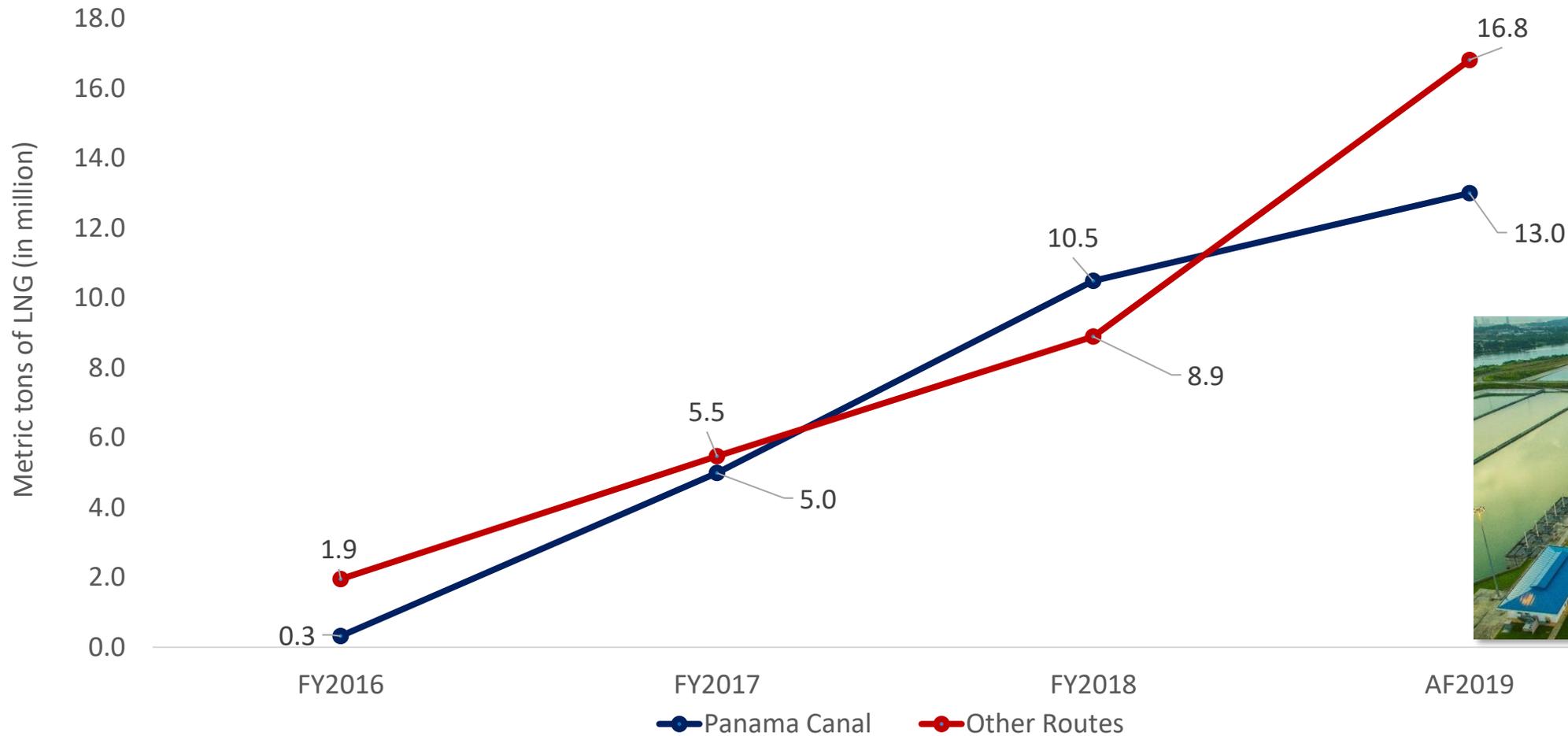


Total U.S. exports of LPG (FY2016-2019) through the Panama Canal and Other Routes



Source: LPG Waterborne Trade of IHS Markit and Panama Canal Datawarehouse

Total U.S. exports of LNG (FY2016-2019) through the Panama Canal and Other Routes



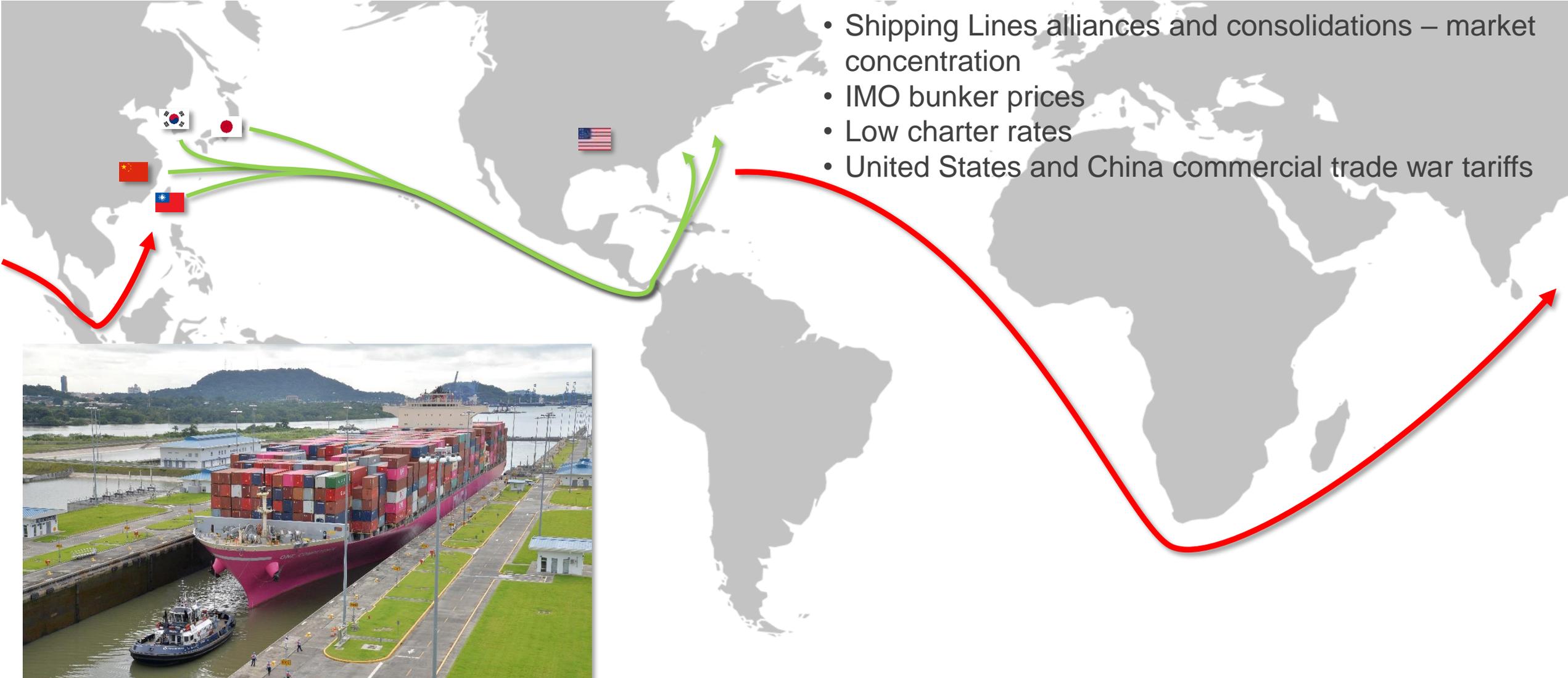
Source: LNG Waterborne Trade of IHS Markit and Panama Canal Datawarehouse



World Scenario

Market challenges

Asia – United States East Coast Route



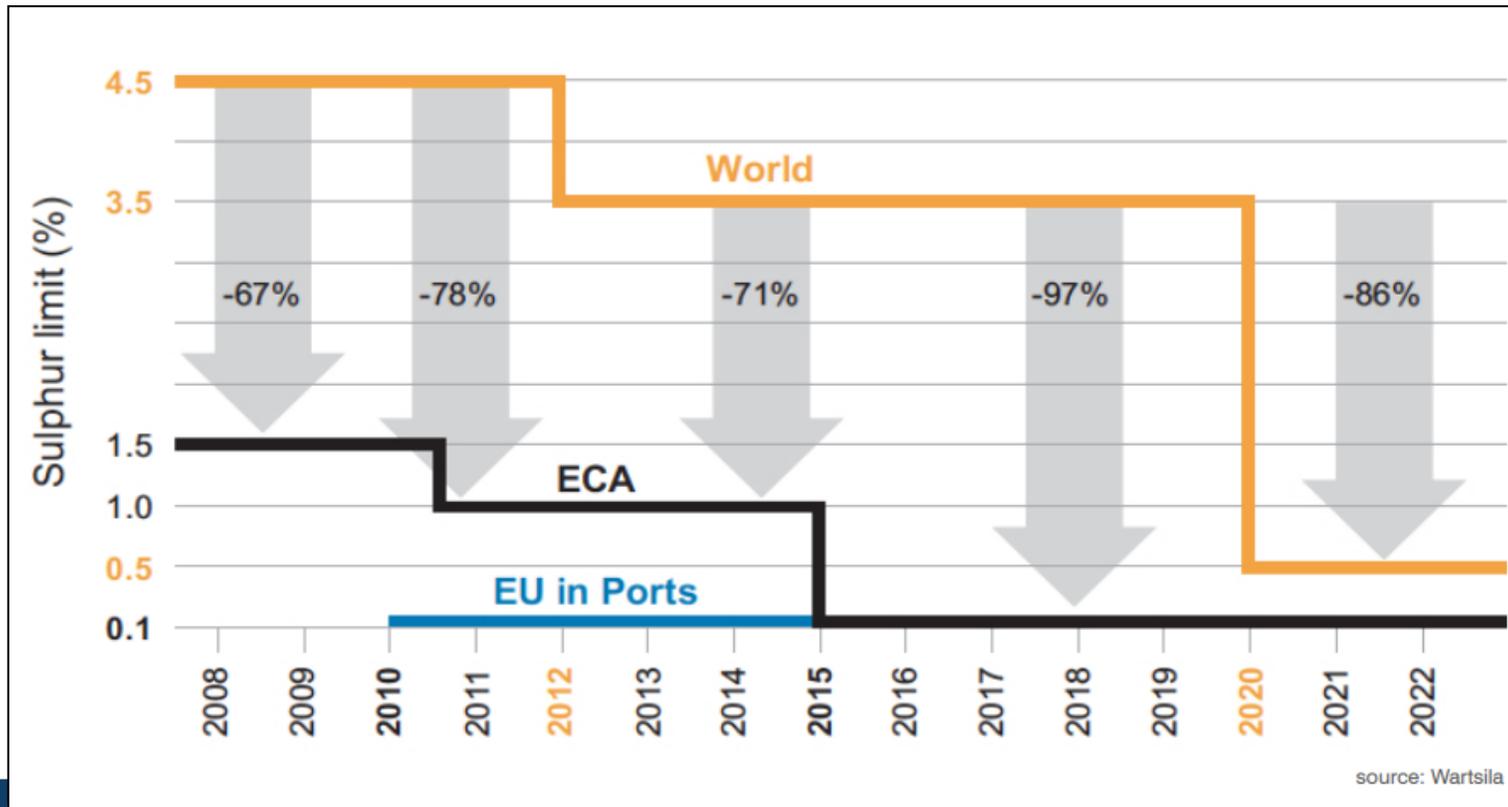
- Shipping Lines alliances and consolidations – market concentration
- IMO bunker prices
- Low charter rates
- United States and China commercial trade war tariffs



IMO 2020 regulation

In 2016, the IMO announced that the effective date for the reduction of marine fuel sulphur will be 2020. Under the new global cap, ships will have to use marine fuels with a sulphur content of no more than 0.5%S against the previous limit of 3.5%S to reduce the amount of sulphur oxide. The Emission Control Areas (ECAs) will remain at the 2015 standard of 0.1%S content.

Reduction of marine fuel Sulphur since 2008.



The transition to 0.5%S will cause more changes to global marine industry than the switch to the 0.1%S fuel in the ECAs. The impact of this transition represents approximately 75% of the global marine fuel demand when compared to the demand of ECA.

U.S. – China Trade Dispute

Finished Products 10-25%



Liquefied Petroleum Gas (LPG) 25%



Liquefied Natural Gas (LNG) 10%



Automobiles 25%



Dry Bulk Cargo 10-25%



Climate change is here



Turbidity of Lake Alajuela that could not be controlled



NACIONAL 22/11/2016 - 4:00 p.m. martes 22 de noviembre de 2016

Tormenta Otto se convierte en el séptimo huracán del Atlántico



Solución no está a la vista

El director del Idam, Manuel González Ruiz, dijo que es muy probable que se repitan los episodios de turbiedad que mantiene el lago Alajuela.

Luzmila Cecilia Medina | lucimilad@panama.com | 2016-11-22 16:00:00

La tormenta Otto deja tres muertos en Panamá



LOS NÚMEROS DE OTTO EN PANAMÁ

Los vientos de Otto ya superaron los 110 km/h por lo que en pocas horas será un ciclón con vientos superiores a los 120 km/h.



CUENCA DEL EMBALSE DE ALAJUELA ‘La Purísima’ causó 500 deslizamientos de tierra

En 24 horas cayeron 788 milímetros cuadrados de agua, estableciéndose un récord según reportes de la Autoridad del Canal de Panamá.



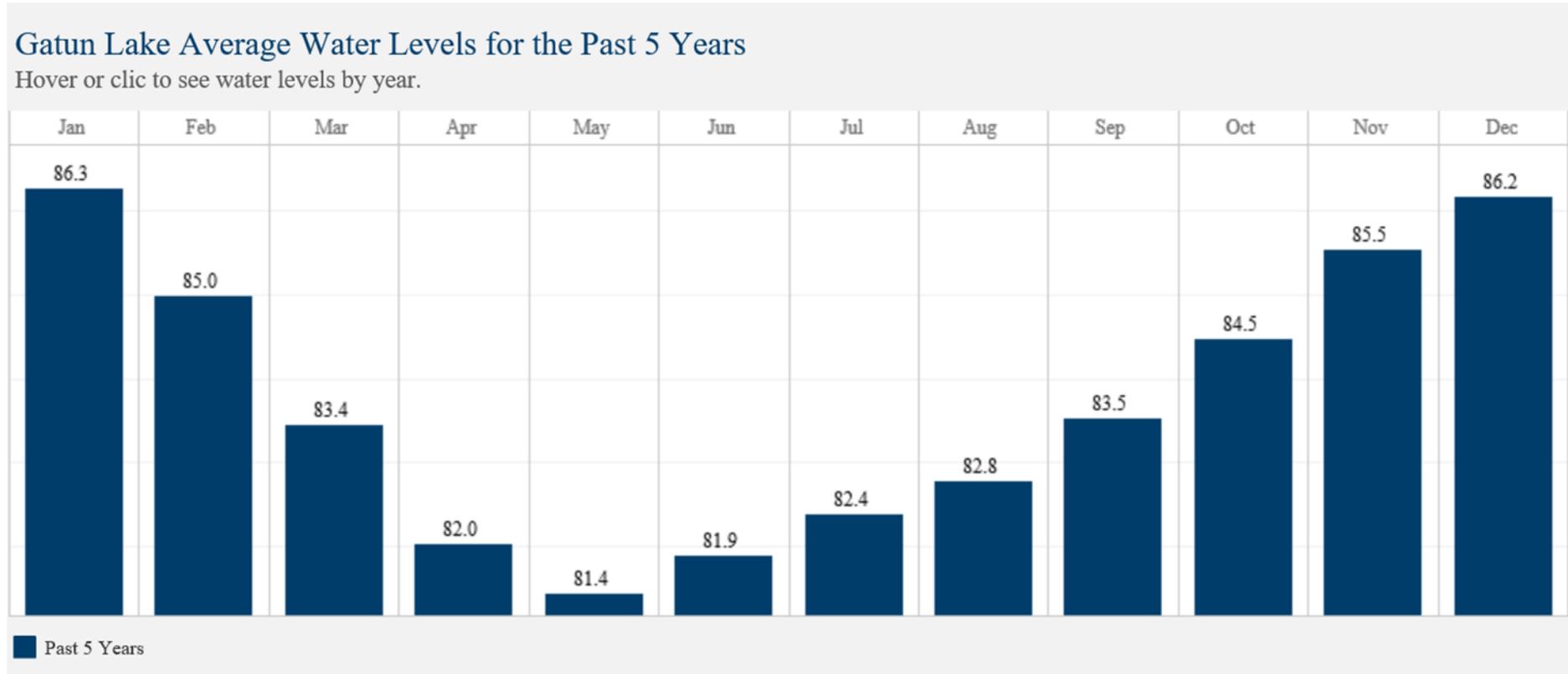
Alajuela. Los niveles de turbiedad que presenta el lago que alimenta a la planta estabilizadora de Otiliano no tienen precedentes, dijeron autoridades del Idam. LA PRENSA CIVIL/ Mica

Water Saving Measures at the Panama Canal

- Cross fill operations at the panamax locks
- Tandem transits
- Suspension of power generation at the Gatun
- Elimination of hydraulic assistance at the panamax locks
- Use of water saving basins at the neopanamax locks

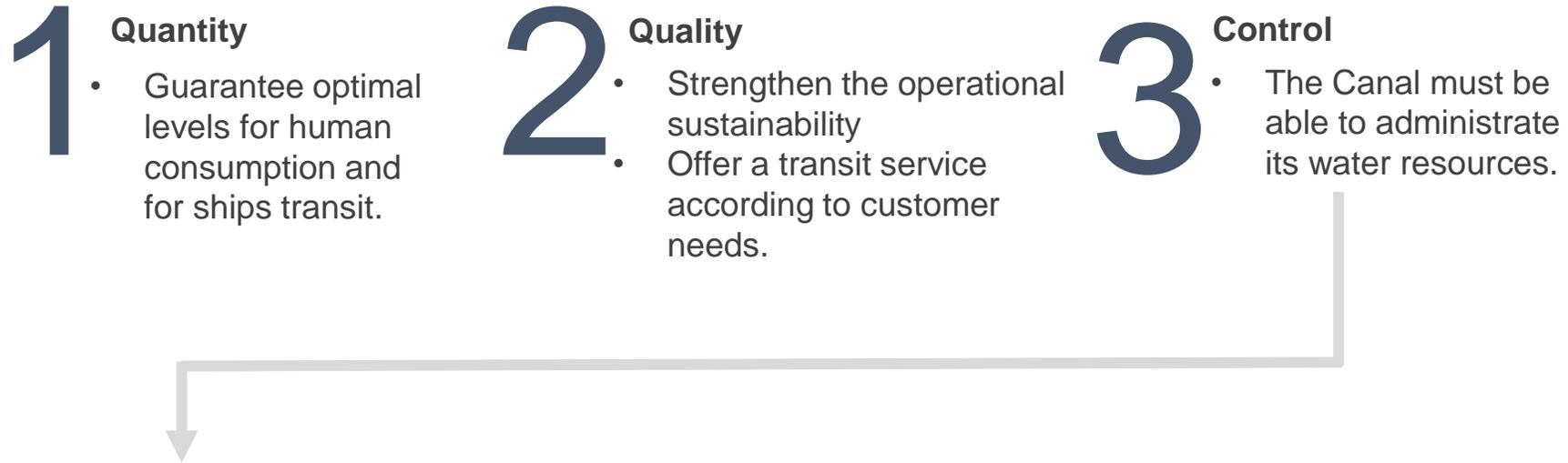


Average water levels of the gatun lake



In January of 2020, the Gatun Lake was already at 83 feet and dropping.

Water resource management criteria



The Panama Canal needs to reconsider the economic value of the water resource, specifically through a fee for freshwater consumption in transits applicable to high draft vessels.

This charge will consist of a fixed component and a variable component:

- **Fixed component:** US\$10,000 for each transit, without distinction.
- **Variable component:** Percentage of the toll established based on the daily level of Gatun Lake. This percentage will fluctuate between 1% and 10%.

A web platform has been enabled to provide information for customers about the lake levels as well as the variable component of the surcharge.

- **Transit itinerary registration fee:** Consists of an advance payment at the time of reservation, which will not be refundable if the transit is canceled.



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