



China's Pursuit of Energy Security

Electrification is a Gamechanger

A Marathon Initiative Infographics Series

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The purpose of the Marathon Initiative Infographics Series is to drive home urgent geostrategic realities in an intuitive, visual way for an audience of engaged citizens.

China is making strides in its effort to secure its energy supply, undercutting the threat of an American blockade, potentially increasing Beijing's willingness for war.

- 1 Beijing is achieving a measure of self-sufficiency through impressive gains in “electrification.”
- 2 The energy-centric deepening of the China-Russia economic axis is also contributing to this outcome, especially by allowing China to insulate its oil payment settlements from sanctions.
- 3 The more resilient China's energy architecture, the more tenuous the logic of an allied “far blockade” on China's oil maritime imports.

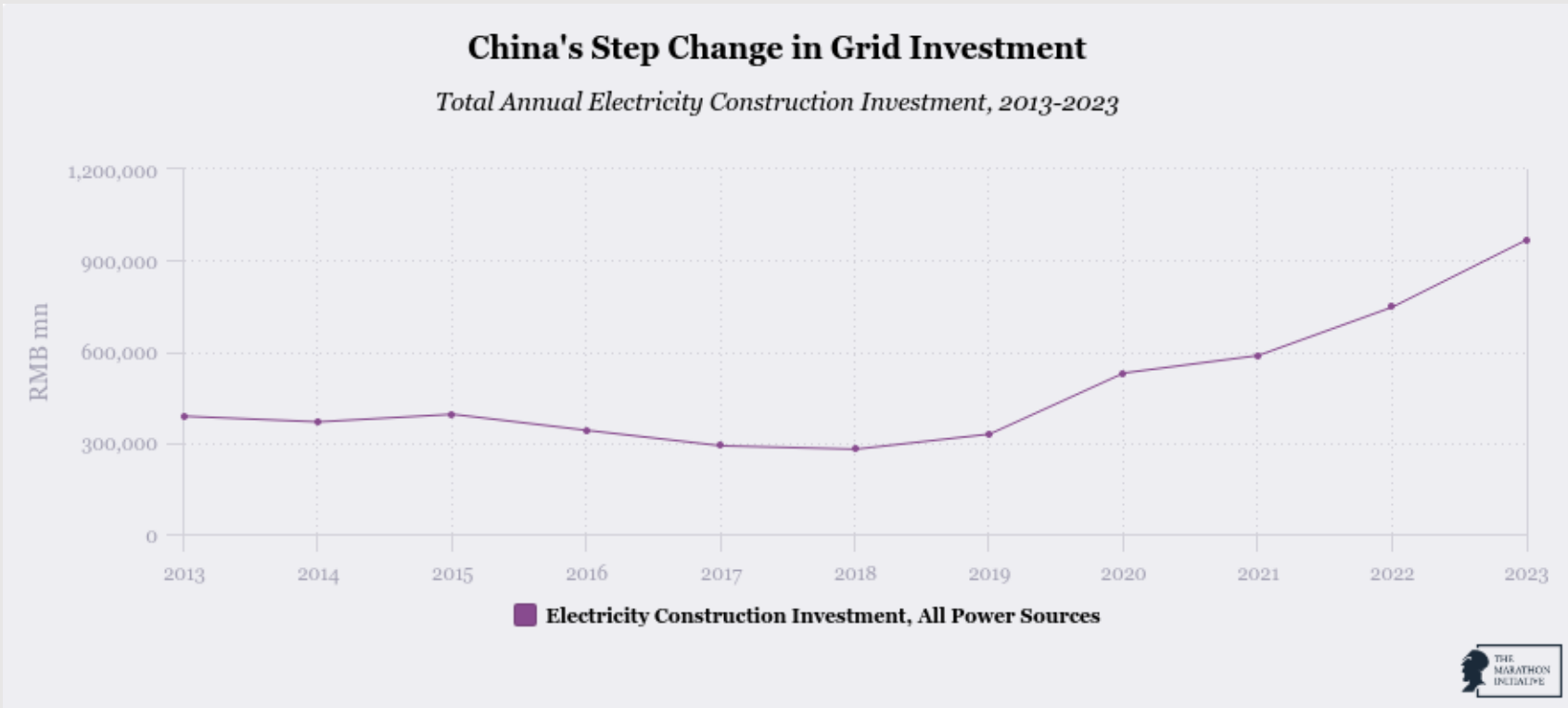
An accurate rendering of China's energy picture is important because Beijing will take careful stock of non-military risks like energy security before launching a program of dramatic escalation in the Pacific.

In the energy domain China is seizing the initiative.

The result: a margin of energy security Beijing can rely on in a war.

New Money at an Old Problem

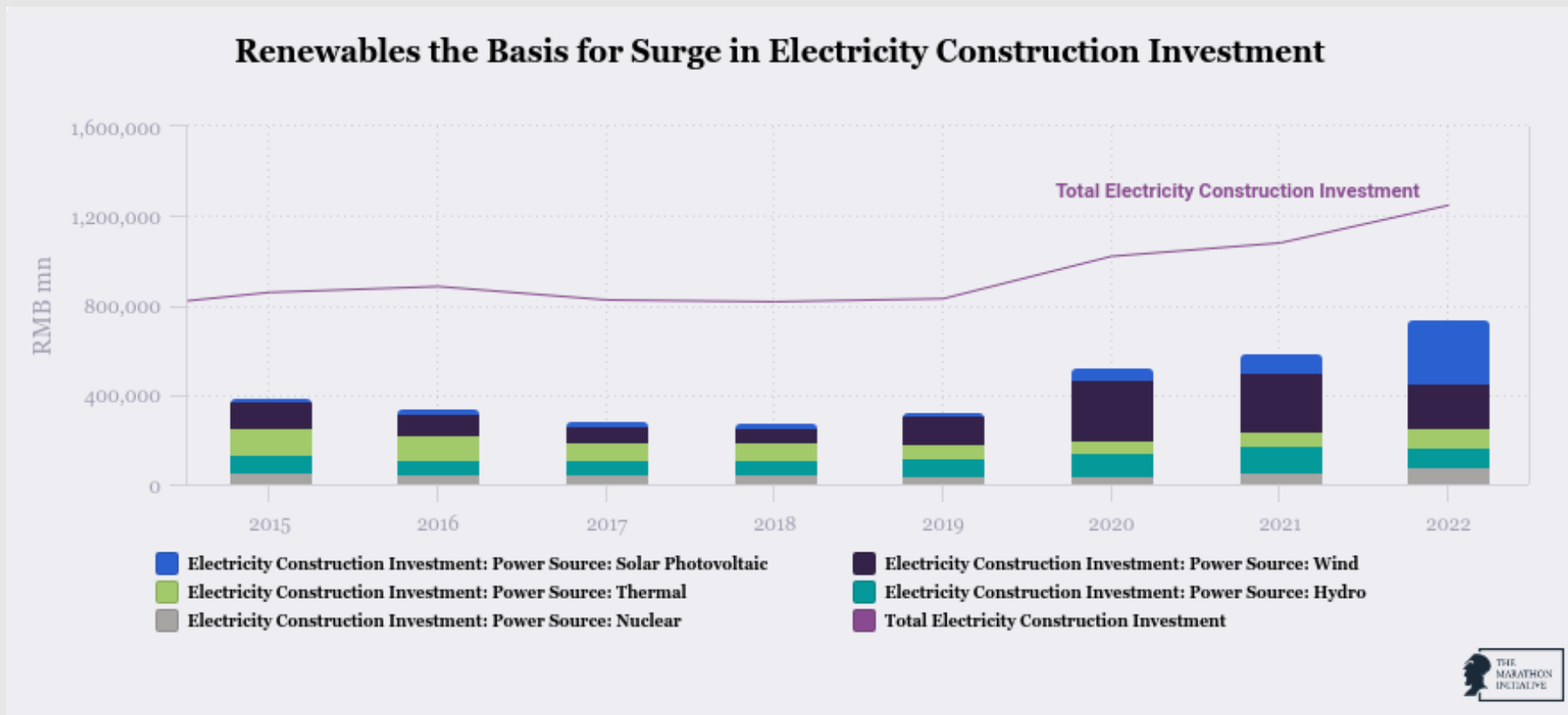
- For at least two decades, Beijing has struggled with its so-called “Malacca dilemma”: the prospect of an American “far blockade” of China’s seaborne oil imports.
- To alleviate this risk, Beijing is focused on “electrifying” its energy grid as a means of reducing its dependence on foreign oil imports.
- Even during the current period of cyclical economic slowdown, Beijing has been directing an increasing share of its national income towards domestic power and electricity generation.



Source: CEIC Data

“Electrification”: The New Solution

- President Xi Jinping has worked to ease what he has called the external “supply constraints” that threaten China’s energy security.¹
- Xi has a solution at his disposal that previous Chinese leaders did not: *renewable energy*, the leading source of China’s remarkable grid growth in recent years.

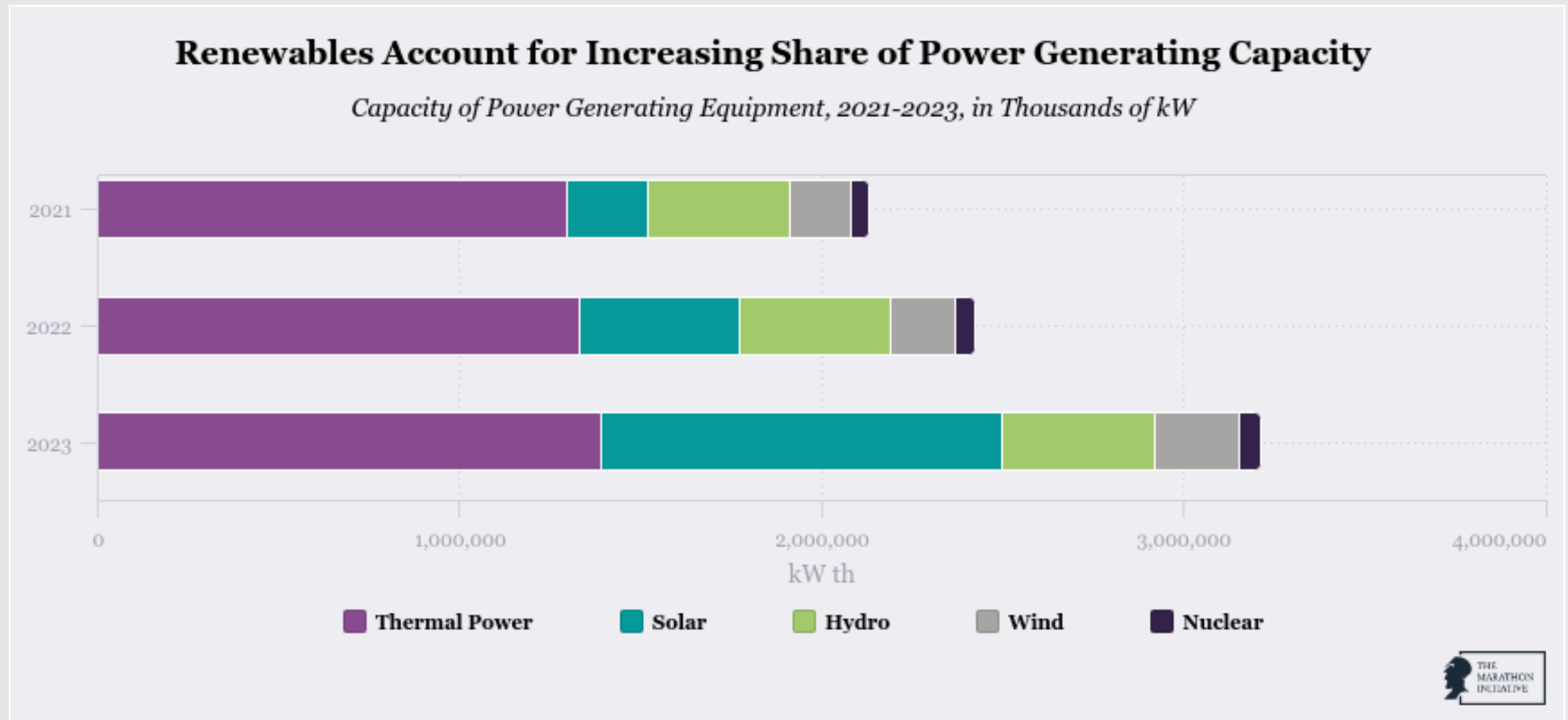


Source: CEIC Data

¹ “Xi stresses boosting high-quality development of new energy,” *Xinhua*, February 29, 2024

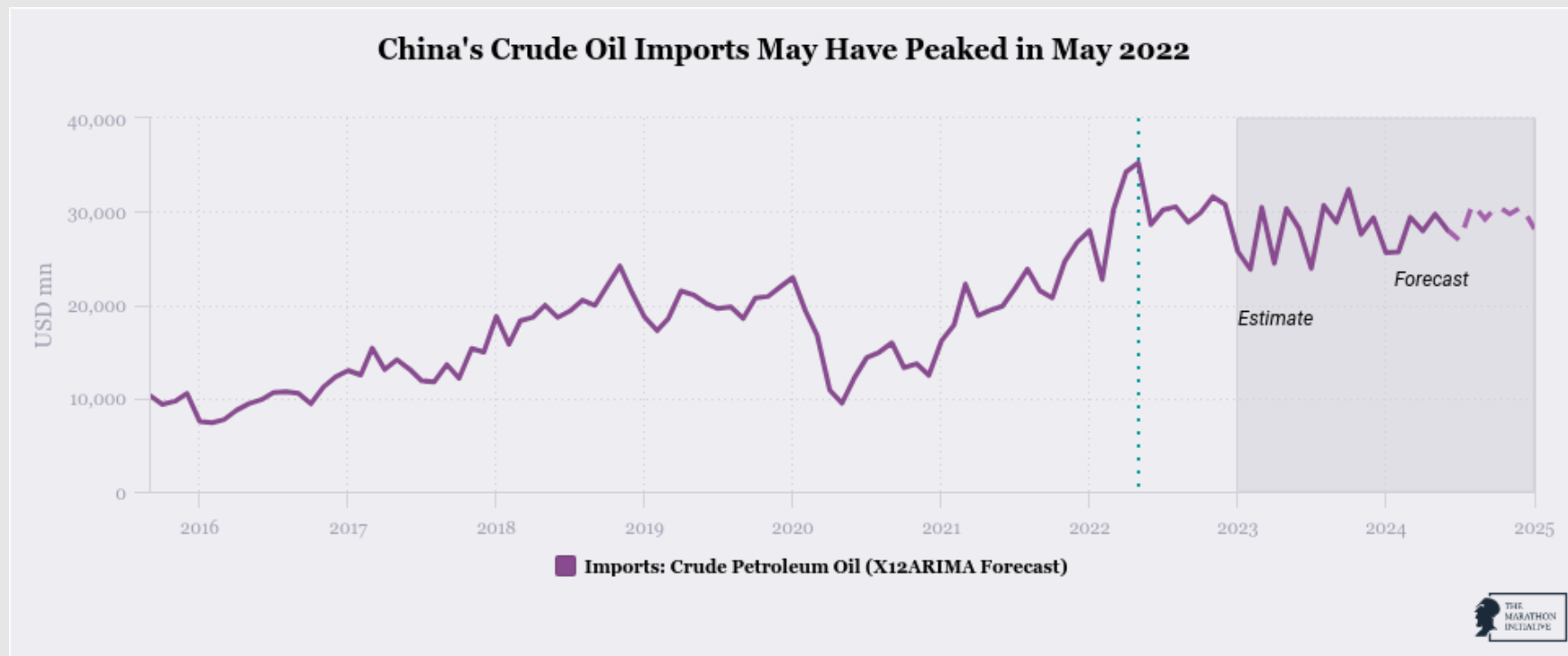
Record Investment is Translating into Vast Domestic Electricity Capacity

- Growth of power capacity is primarily thanks to new solar installations and a near-unlimited supply of thermal coal.



China's "Electrification" Campaign is Designed to Wean Beijing off Dependence on Foreign Oil

- To give one example, the replacement of traditional ICE vehicles with EVs has led to the partial electrification of China's transport sector. EVs can be powered by non-oil sources of domestic energy instead of diesel and petrol.
- Overall, electrification is leading to slower oil demand growth and thus declining imports, a trend observed by China's largest energy company.¹

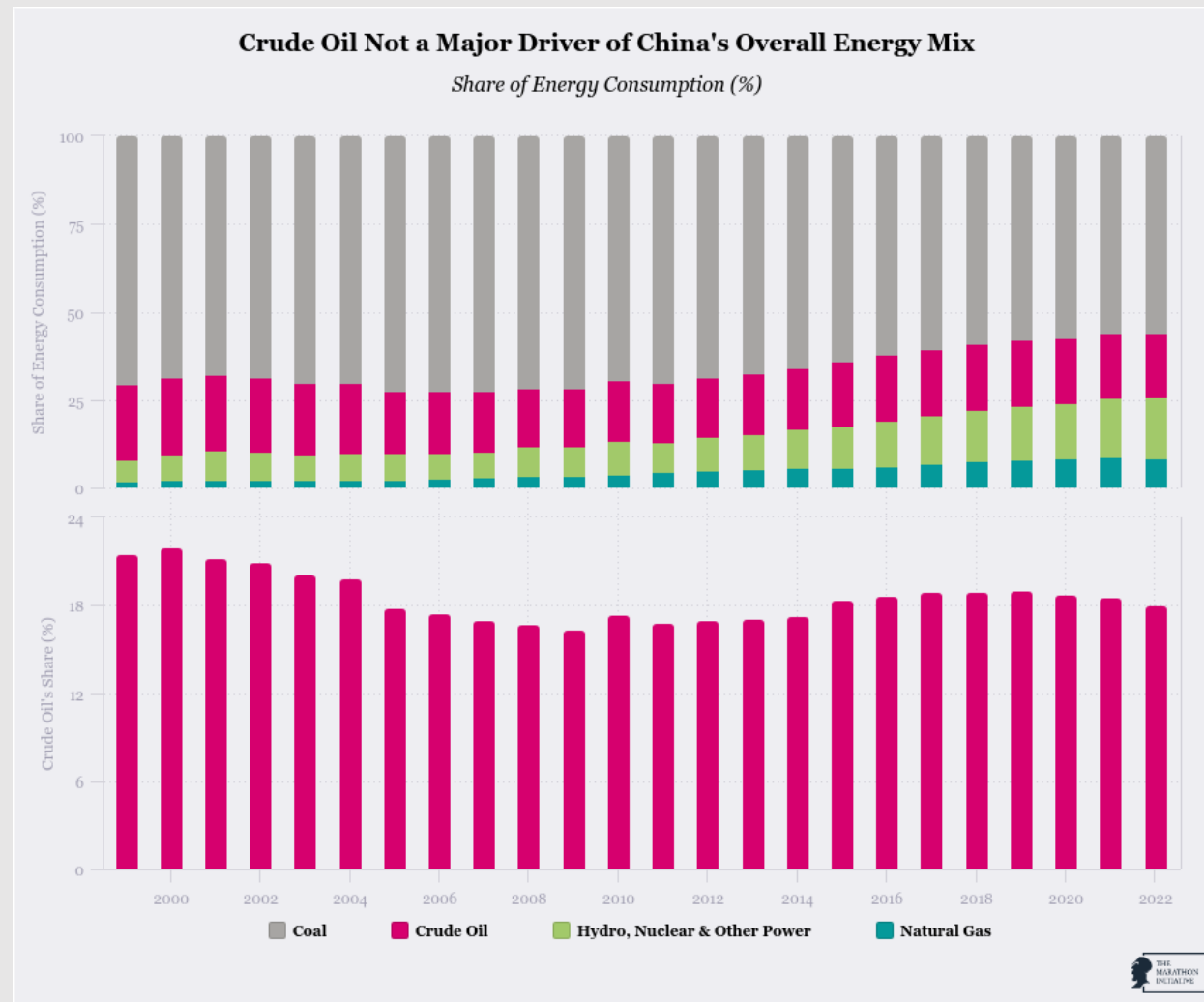


Source: CEIC Data

¹ "Chinese Oil Demand Is Entering Era of Low Growth, CNPC Says," *Bloomberg*, March 7, 2024

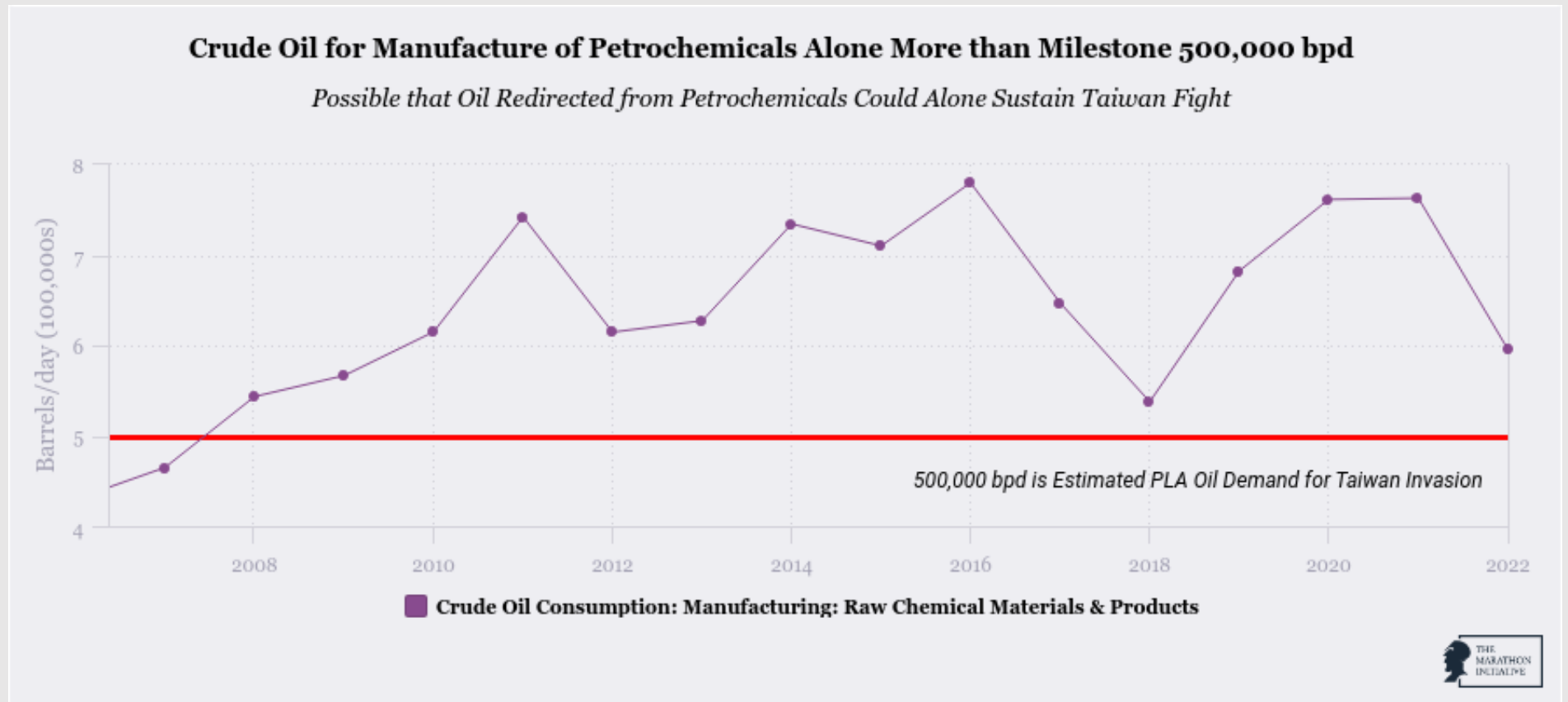
Crude Oil, All-Important for Military Operations, is No Longer as Important Elsewhere in the Chinese Economy

- Crude oil now accounts for less than 18% of China's overall energy consumption – and trending downwards. In effect, oil has been “freed up” for military use.



The Petrochemicals Sector Alone Consumes More Oil than Beijing Requires for a Taiwan Fight

- Given the trend towards electrification, it should be no surprise that in recent years oil has increasingly flowed to the country's petrochemicals sector, where it is essentially an industrial feedstock.

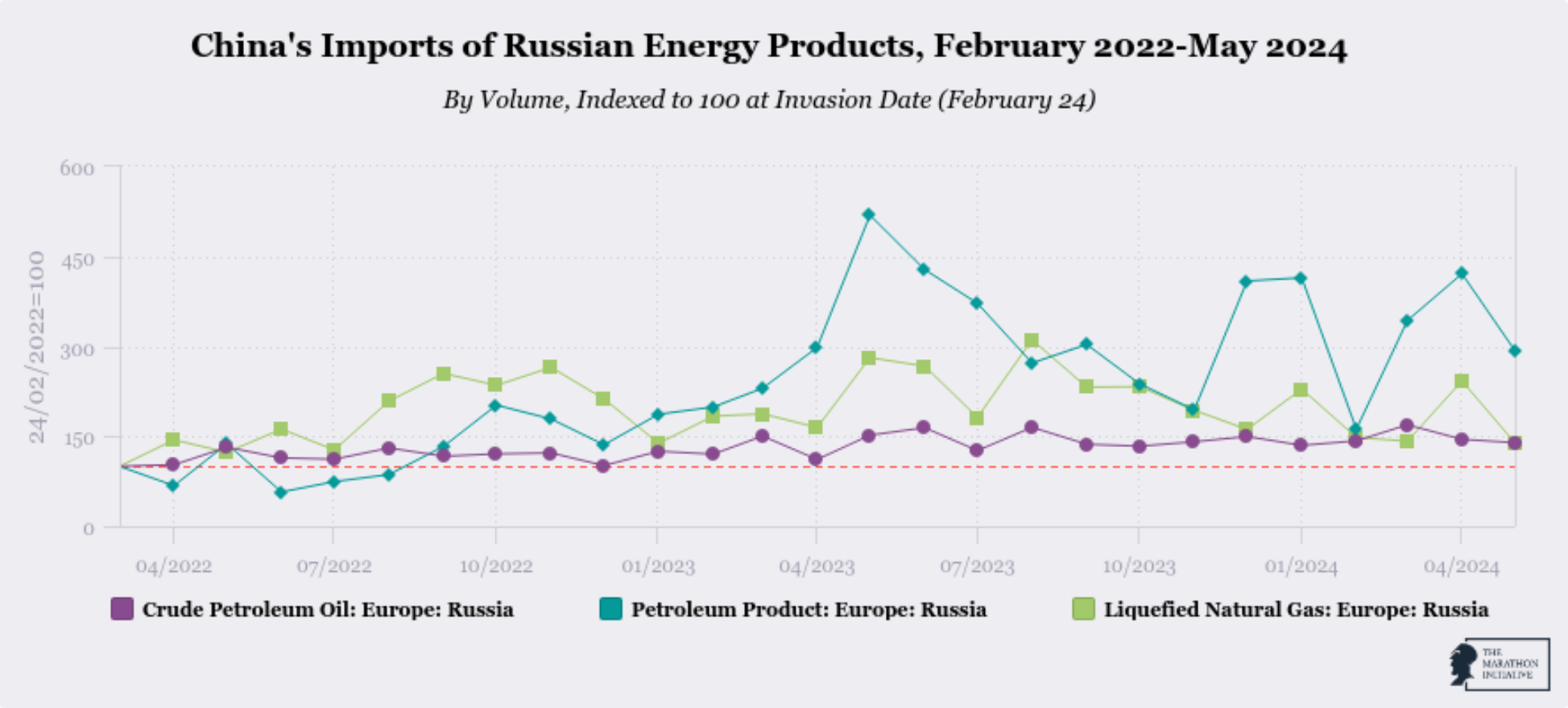


Source: CEIC Data

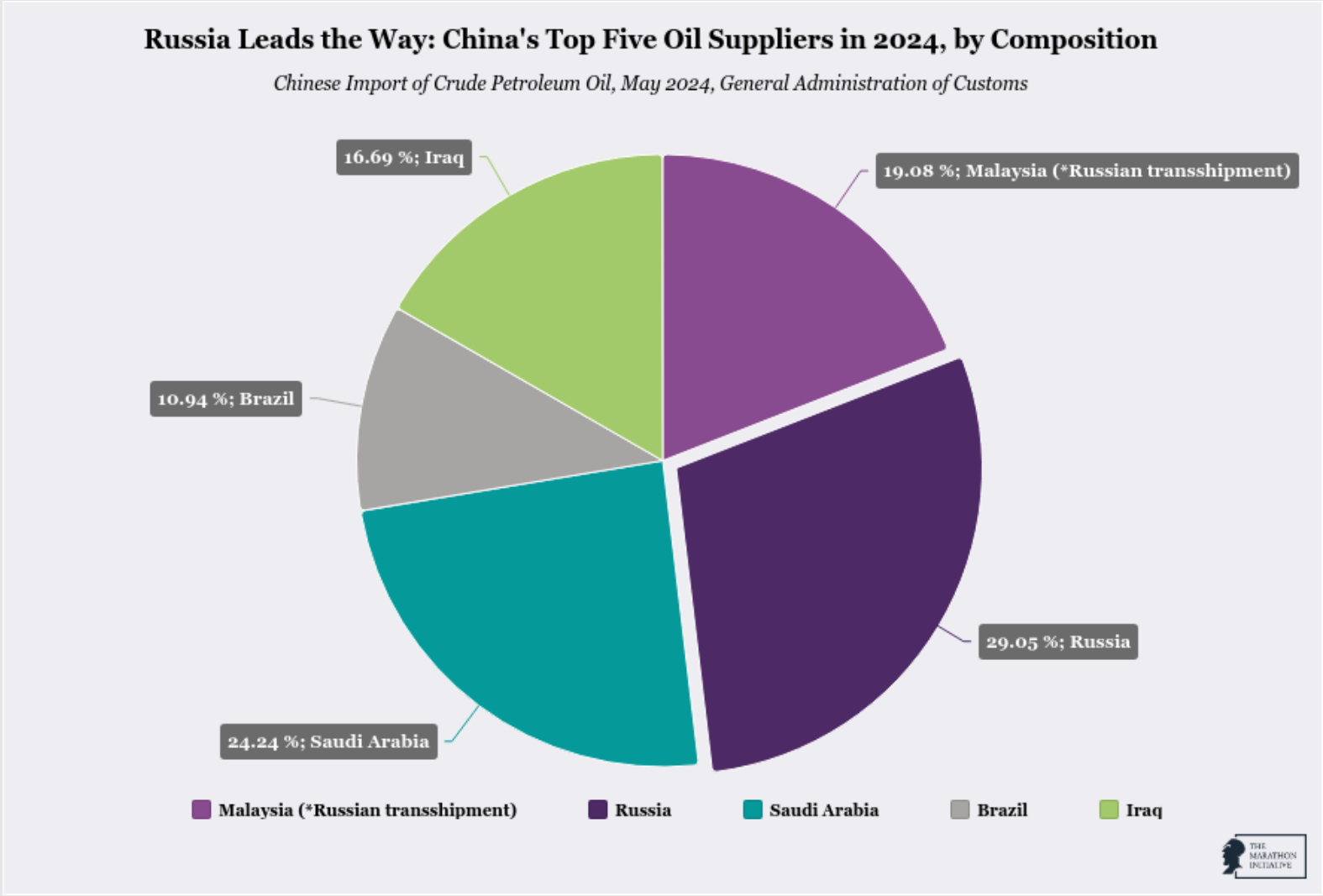
N.B., for 500,000bpd estimate, see Gabe Collins, "A Maritime Oil Blockade Against China," *Naval War College Review*, 2018, p. 67

For the Oil China Continues to Require, Beijing Can Now Count on a Safer Supplier: Moscow

- China's monthly imports of oil and gas from Russia have tended to register anywhere between 50% and 300% higher than prewar levels.

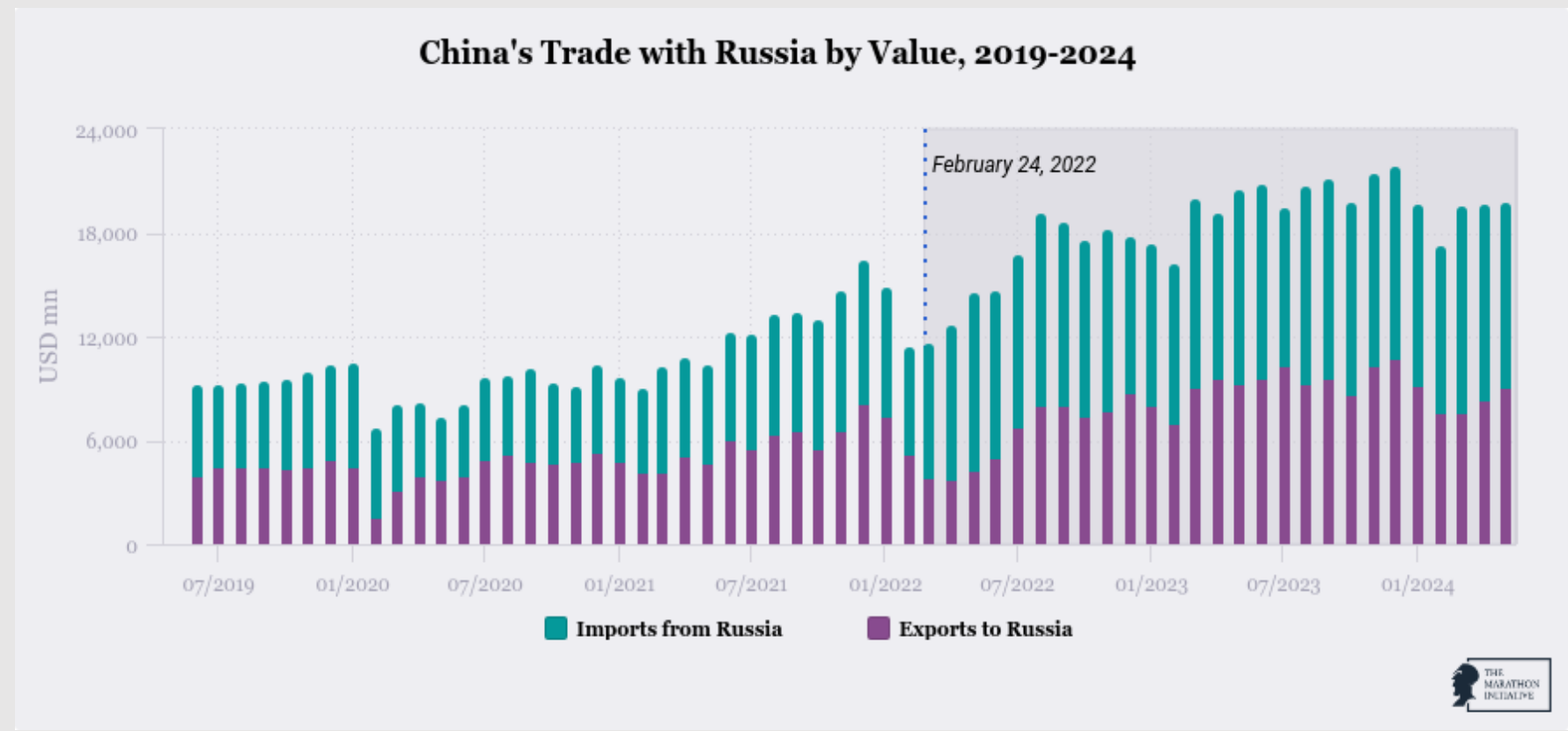


Even Before One Accounts for Transshipment, Russia is Now China's Largest Oil Supplier



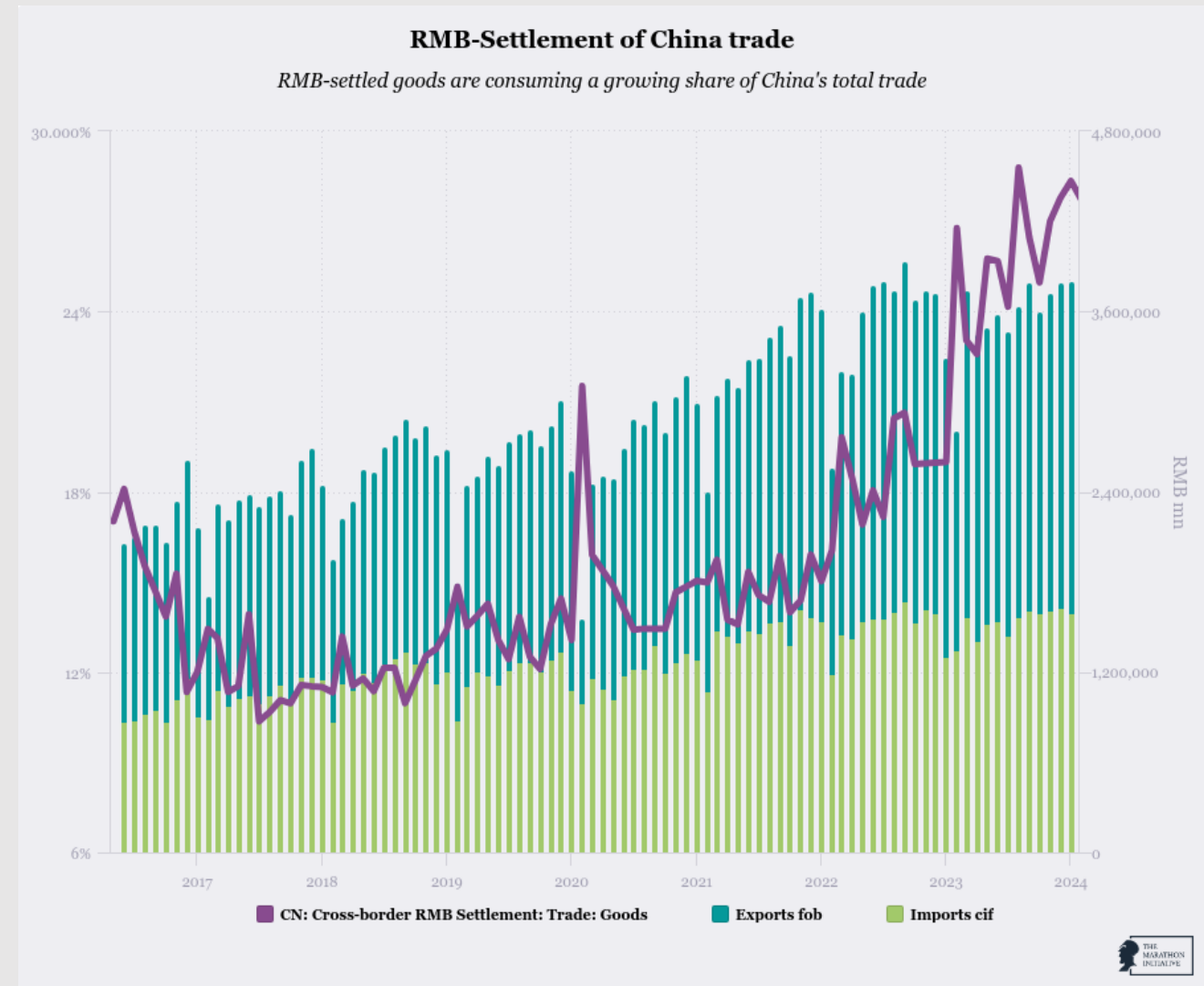
The Oil Trade is Fortifying a Durable Russia-China Economic Axis

- The energy trade is driving China's surging volume of total trade with Russia since February 24, 2022.
- Russia finds itself in possession of Chinese currency it can use to buy goods in exchange for oil, particularly capital goods that support of its defense industrial base.



One Result: A Non-Dollar Economic Axis Effectively Beyond the Reach of US Sanctions

- China now settles 28% of its goods trade in its own currency, up from 12% in 2017.



Chinese pursuit of energy security illustrates Beijing's concerted effort to gird its economy for future crises.

- Over time China will require increasingly less imported oil for the smooth functioning of its domestic economy, owing to successes in electrification.
- China may also be able to obtain oil for military use from elsewhere in its economy.
- China can increasingly count on Russia to cover a growing portion of any shortfall.
- Reducing China's foreign oil dependence has already given Beijing increased room for geopolitical maneuver around the threshold of war.
- Under these conditions it is highly uncertain whether a "far blockade" of the Malacca Strait, aimed at constricting China's oil imports, could successfully change China's behavior in a crisis.