



ROSA & ROUBINI
ASSOCIATES

MACRO PICTURE
Asia's Energy Shock:
Vulnerabilities and Resilience

By
Nato Balavadze



5 May 2026

Nato Balavadze

Asia's Energy Shock: Vulnerabilities and Resilience

5 May 2026

Table of Contents

Executive Summary	Page 3
Energy Security, Growth, And Asia's Energy Transition.....	4
China: Resilience Through Structure.....	5
Japan: Acute Exposure, Limited Room To Maneuver.....	6
South Korea: Energy Vulnerability Meets Industrial Ambition.....	8



Rosa & Roubini Associates Ltd is a private limited company registered in England and Wales (Registration number: 10975116) with registered office at 75 King William Street, London EC4N 7BE, United Kingdom.

For information about Rosa&Roubini Associates, please send an email to info@rosa-roubini-associates.com or call +44 (0)20 7101 0718.

Analyst Certification: I, Nato Balavadze, hereby certify that all the views expressed in this report reflect my personal opinion, which has not been influenced by considerations of Rosa & Roubini Associates' business, nor by personal or client relationships. I also certify that no part of my compensation was, is or will be, directly or indirectly, related to the views expressed in this report.

Disclaimer: All material presented in this report is provided by Rosa & Roubini Associates-Limited for informational purposes only and is not to be used or considered as an offer or a solicitation to sell or to buy, or subscribe for securities, investment products or other financial instruments. Rosa & Roubini Associates Limited does not conduct "investment research" as defined in the FCA Conduct of Business Sourcebook (COBS) section 12 nor does it provide "advice about securities" as defined in the Regulation of Investment Advisors by the US SEC. Rosa & Roubini Associates Limited is not regulated by the FCA, SEC or by any other regulatory body. Nothing in this report shall be deemed to constitute financial or other professional advice in any way, and under no circumstances shall we be liable for any direct or indirect losses, costs or expenses nor for any loss of profit that results from the content of this report or any material in it or website links or references embedded within it. The price and value of financial instruments, securities and investment products referred to in this research and the income from them may fluctuate. Past performance and forecasts should not be treated as a reliable guide of future performance or results; future returns are not guaranteed; and a loss of original capital may occur. This research is based on current public information that Rosa & Roubini Associates considers reliable, but we do not represent it is accurate or complete, and it should not be relied on as such. Rosa & Roubini Associates, its contributors, partners and employees make no representation about the completeness or accuracy of the data, calculations, information or opinions contained in this report. Rosa & Roubini Associates has an internal policy designed to minimize the risk of receiving or misusing confidential or potentially material non-public information. We seek to update our research as appropriate, but the large majority of reports are published at irregular intervals as appropriate in the author's judgment. The information, opinions, estimates and forecasts contained herein are as of the date hereof and may be changed without prior notification. This research is for our clients only and is disseminated and available to all clients simultaneously through electronic publication. Rosa & Roubini Associates is not responsible for the redistribution of our research by third party aggregators. This report is not directed to you if Rosa & Roubini Associates is barred from doing so in your jurisdiction. This report and its content cannot be copied, redistributed or reproduced in part or whole without Rosa & Roubini Associates' written permission.

Nato Balavadze

Asia's Energy Shock: Vulnerabilities and Resilience

5 May 2026

Page | 3

Executive Summary

Energy Security, Growth, And Asia's Energy Transition

- ✦ The Hormuz disruption has hit Asia hardest due to its heavy reliance on Middle Eastern oil and LNG, with Japan and South Korea highly exposed and China the largest overall importer
- ✦ The shock is driving inflation, weakening currencies, and raising production costs, but impacts differ based on energy system resilience and diversification
- ✦ The crisis is accelerating a structural shift toward renewables and electrification, reinforcing China's advantage and highlighting that energy vulnerability depends on long-term policy and system choices

China: Resilience Through Structure

- ✦ China's response relies on structural resilience rather than emergency measures, supported by coal flexibility, strong reserves, diversified supply, and electrification
- ✦ Long-term investments have strengthened its position, with renewables nearing 40% of power generation and large strategic reserves limiting macroeconomic impact
- ✦ China is not only absorbing the shock but shaping the transition, leveraging dominance in clean energy supply chains to reinforce its role as the leading "electrostate"

Japan: Acute Exposure, Limited Room To Maneuver

- ✦ Japan is highly exposed to the Hormuz shock due to heavy reliance on Middle Eastern energy, with rising costs hitting growth, real incomes, and financial stability
- ✦ Strong reserves and initiatives like POWER Asia provide short-term buffers, but do not eliminate exposure to global supply constraints and higher prices

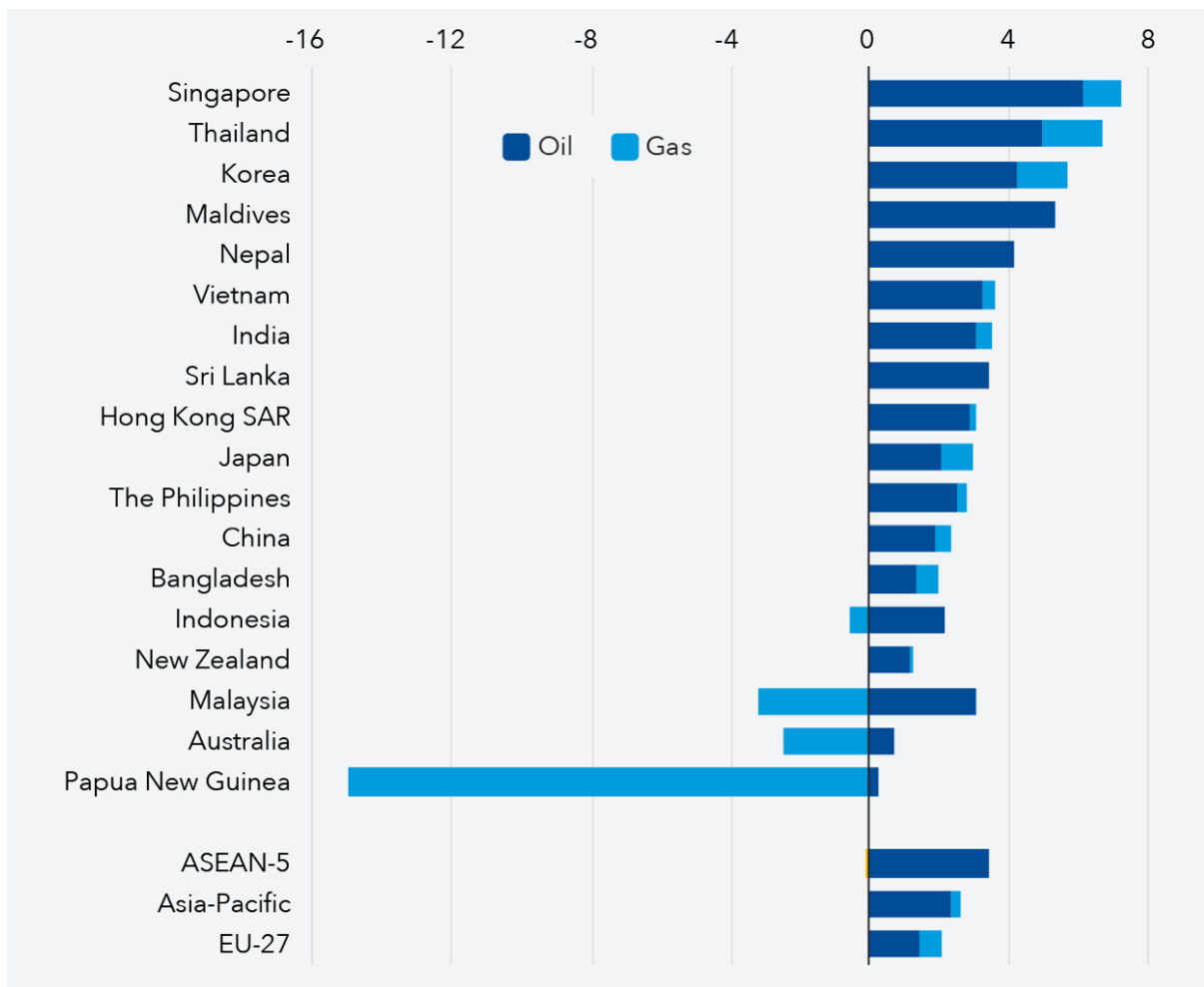
The crisis is accelerating diversification, nuclear restarts, and strategic coordination, but Japan still faces a structural challenge of reducing long-term dependence

South Korea: Energy Vulnerability Meets Industrial Ambition

- ✦ South Korea is highly exposed to the energy shock due to heavy import dependence, with rising LNG costs driving inflation, increasing production costs, and weakening the currency

The government is balancing short-term stabilization with a long-term shift to renewables, but energy disruptions are complicating industrial policy goals and exposing tensions between growth ambitions and structural vulnerability

Key Picture: Net Imports of Oil and Gas, % of GDP



Source: [IMF](#)

Energy Security, Growth, And Asia’s Energy Transition

The disruption of the Strait of Hormuz has triggered a systemic energy shock, with Asia at its center. As the primary destination for roughly 80% of oil flows through the Strait and a major buyer of Gulf LNG, the region is uniquely exposed. Japan and South Korea remain heavily dependent on Middle Eastern energy imports, while China, despite its scale, is the largest absolute importer of Gulf energy.

The immediate impact is macroeconomic. Rising fuel costs are feeding into higher production expenses, eroding purchasing power, and, particularly in more import-dependent economies, putting pressure on currencies and external balances. In parts of Asia where inflation had remained relatively contained, the surge in energy and food prices is now testing price stability.

Yet the shock is not uniform. Japan and South Korea are confronting a direct import-security crisis, while China faces a more contained price and growth shock from a stronger buffer position. This divergence reflects structural differences in energy systems, namely the degree of diversification, storage capacity, and the ability to substitute away from imported fossil fuels.

Policy responses mirror these differences. Japan has relied primarily on short-term stabilisation tools: releasing strategic reserves, subsidising fuel, conserving LNG through increased coal usage, and accelerating nuclear restarts. South Korea has adopted a more centralized and interventionist approach, combining demand-

management measures with supply diversification and rapid nuclear reactivation, while securing alternative import routes outside Hormuz.

At the same time, the crisis is revealing a deeper divide: resilience is increasingly determined by prior investment in energy systems. Economies with greater exposure to clean energy and diversified supply structures are absorbing price shocks more effectively.

Beyond immediate crisis management, the implications are structural. The Iran war is accelerating Asia’s shift toward renewables, grid infrastructure, and electrification. In this transition, China holds a decisive advantage, leveraging its dominance across clean energy manufacturing, supply chains, and electrical systems. While this may support global decarbonization, it also intensifies long-term geoeconomic competition, particularly with the United States.

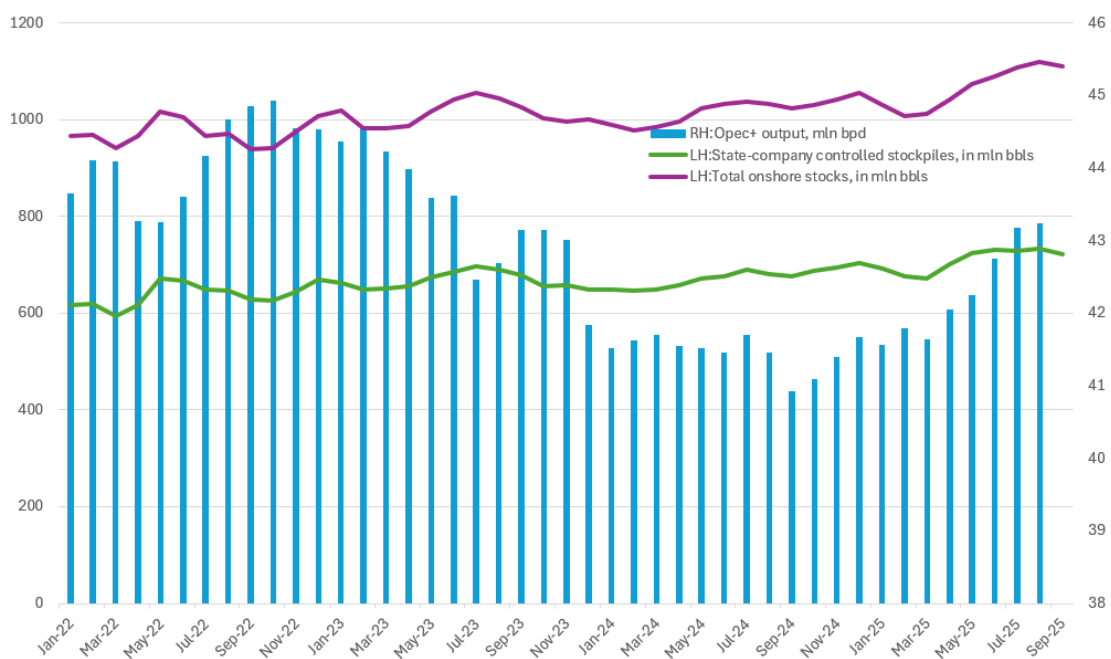
In this sense, the conflict is rightly described as “[Asia’s Ukraine moment](#).” Just as Europe was forced to rethink its dependence on Russian gas, Asia is now confronting the risks of oil dependence. The difference is that cleaner alternatives are now more cost-competitive and scalable than they were just a few years ago.

The core lesson is straightforward: vulnerability is shaped less by trade balances than by structural and policy choices. Energy security today depends on diversification, domestic control over key systems, and insulation from global commodity volatility. For fossil-fuel-dependent economies, the warning is sharper still, accelerating global electrification risks leaving behind stranded assets and shrinking export markets.

China: Resilience Through Structure

China has not announced a dramatic emergency package on the scale of Korea, largely because its exposure is cushioned by domestic coal, strong gas production, pipeline imports, strategic reserves, rapid electrification, and diversified suppliers. [China has even been able to re-export LNG cargoes](#), and [its large buffers, coal-switching capacity, and tighter energy links with Russia put it in a relatively strong position](#). In practice, China’s mitigation strategy is less about emergency rationing and more about leaning on pre-existing resilience: coal flexibility, inventories, storage, electrification, and continued diversification (**Figure 1**).

Figure 1: China’s Crude Oil Stockpiling vs OPEC+ Output



Source: [Reuters](#)

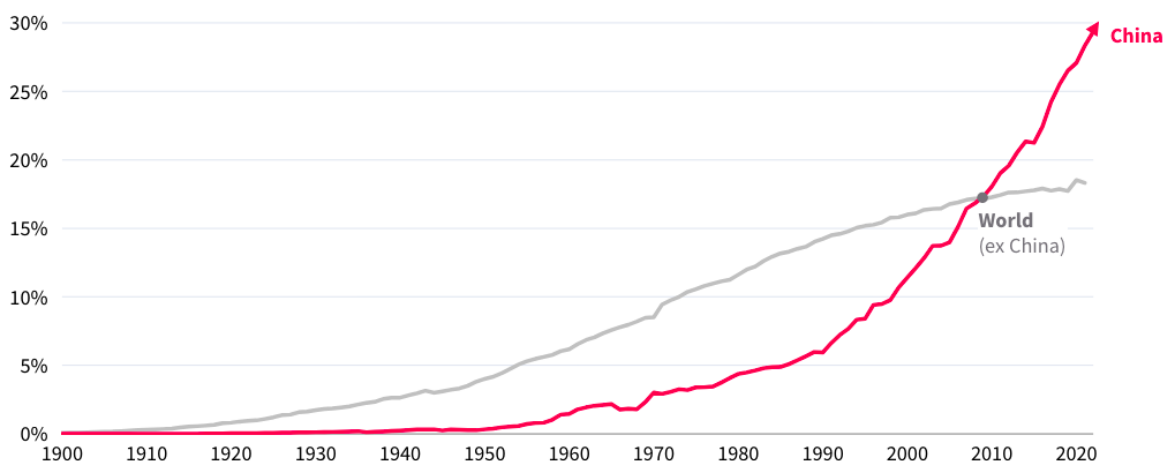
Policy signals reinforce this approach. [NDRC head Zheng Shanjie has emphasized](#) expanding strategic reserves, strengthening emergency preparedness, and deepening energy cooperation, particularly with Russia, while maintaining coal as a security backstop. At the same time, Beijing is prioritizing supply chain security, risk monitoring, and resilience to external pressures such as sanctions.

This structural advantage is the result of long-term investment. Renewables now generate nearly 40% of China’s electricity (up from 26% a decade ago), and strategic oil reserves exceed 1.2 billion barrels. As a result, the macroeconomic impact has been more contained, with growth revisions significantly smaller than in more exposed economies.

Beyond resilience, China is also shaping the post-crisis landscape. Its dominance in solar panels, batteries, and Evs, the “new trio”, is underpinned by control over critical minerals, industrial inputs, and manufacturing systems. As global demand shifts toward electrification, China is positioned not just as a consumer, but as the primary supplier of grid infrastructure, storage, and energy technologies.

The implication is clear: while the shock exposes vulnerabilities elsewhere, it reinforces China’s position as the world’s leading “electrostate” (Figure 2). In the long run, this supports decarbonization; in the short run, it may still rely on coal, but with a growing structural advantage in the global energy transition.

Figure 2: China’s Electricity Share of Final Energy



Source: [IIASA](#)

Japan: Acute Exposure, Limited Room To Maneuver

Japan is among the most exposed economies to the Hormuz shock. [It imports over 85% of its energy, with roughly 94% of crude oil sourced from the Middle East](#), primarily the UAE and Saudi Arabia, despite decades of diversification efforts. Public concern is high, with around 90% of respondents in mid-March polls expressing anxiety about the economic impact.

The immediate shock has been visible across energy, shipping, and financial markets. Rising fuel costs are feeding into higher electricity and food prices, eroding real wages and weighing on growth. Financial conditions have tightened, with equity selloffs, foreign outflows, and a sharply weaker yen adding to the strain.

Tokyo has responded with a mix of short-term stabilization tools and regional coordination. [It released 80 million barrels from strategic reserves](#)—about 45 days of demand—drawing on one of the world’s largest stockpiles, totaling roughly 470 million barrels. LNG inventories provide an additional buffer of about three weeks. At the

regional level, [Japan launched the \\$10 billion POWERR Asia initiative](#) to support emergency fuel procurement, strengthen supply chains, and build long-term resilience.

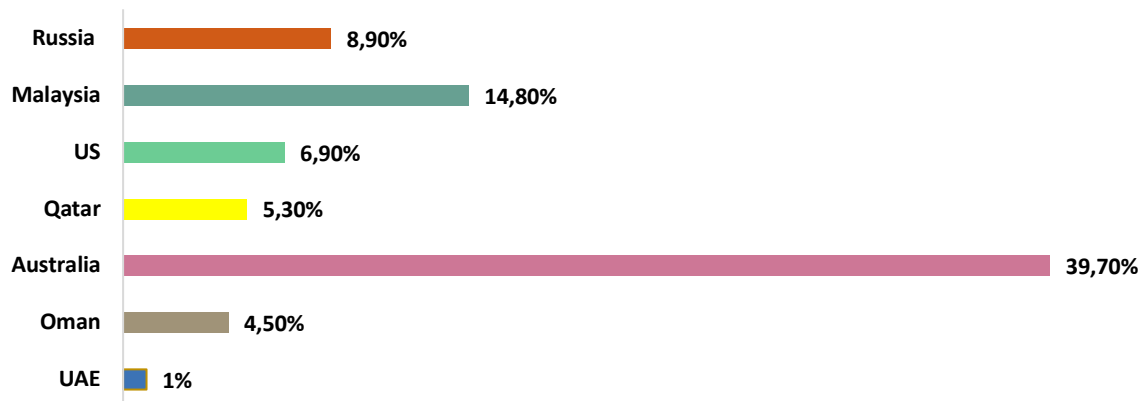
Yet these buffers buy time rather than solve the problem. Japan remains exposed to global supply competition and elevated prices. In response, it is pursuing diversification—exploring alternative routes such as shipments via Saudi Arabia’s Red Sea ports, as well as new suppliers in the Americas—though at higher cost and with refinery constraints limiting flexibility.

Figure 3: Sources of Japan's Oil and Liquefied Natural Gas Imports

Crude Oil



LNG



Source: [CSIS](#)

The shock is also reinforcing broader structural shifts. It strengthens the case for nuclear restarts, deepens energy cooperation with partners such as the United States, and accelerates efforts to secure critical minerals and diversify supply chains. At the same time, prolonged high energy prices risk complicating fiscal policy and raising stagflation pressures.

Geopolitically, the crisis presents a delicate balancing act. U.S. pressure for greater security involvement tests Japan’s evolving defense posture, but legal and political constraints remain binding. Crucially, Tokyo is avoiding bilateral arrangements for passage through Hormuz, favoring multilateral coordination to avoid setting precedents with implications for China. In sum, Japan combines strong short-term buffers with high structural

dependence. The key challenge is to use this temporary window to accelerate diversification and reduce long-term vulnerability.

South Korea: Energy Vulnerability Meets Industrial Ambition

South Korea exemplifies both resilience and structural vulnerability. With energy imports covering about 97% of demand, [including roughly 70% of oil and 20% of gas from the Middle East](#), the Hormuz shock has been severe. LNG costs have roughly doubled, raising production costs, straining households, and exposing the economy to external price volatility.

The government has responded with a dual-track approach. In the short term, it has deployed emergency measures, [fuel price caps, alternative sourcing, relaxed coal limits, and accelerated nuclear restarts](#), to stabilize supply and contain inflation. In parallel, it is advancing a longer-term transition strategy centered on renewables, targeting 100 GW of capacity by 2030, alongside grid reform, electrification, and green industrial policy. Despite higher upfront costs, solar and wind are already competitive with LNG on a marginal basis, offering greater price stability.

However, the energy shock is colliding with South Korea’s broader industrial ambitions. Disruptions to energy and input supplies are complicating [President Lee Jae Myung’s push](#) to scale up high-tech sectors such as semiconductors. While large firms like Samsung and SK Hynix have buffers, smaller firms face tighter constraints, and rising fiscal support risks widening deficits and undermining longer-term policy goals.

Financial markets reflect this tension. After a sharp selloff, equities have rebounded and attracted foreign inflows, but volatility remains elevated. At the same time, the Korean won is near multi-decade lows ([Figure 4](#)), increasing the cost of energy imports and limiting policy flexibility. Overall, South Korea’s position is mixed: strong industrial capacity and investor interest on one hand, but persistent energy dependence and currency weakness on the other.

Figure 4: Won Per Dollar



Source: [Reuters](#)