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Far Away Conflict, Jakarta's Budget:

The Economic Burden of the Middle-East Conflict on Indonesia

Geopolitics Series #1

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Abstract

In February 2026, a war in the Middle East and the closure of the Strait of Hormuz drove global oil and gas prices sharply higher. This paper examines how that distant shock reaches the Indonesian economy and its public finances. It first maps Indonesia's energy exposure — a country that imports most of its liquid fuel, much of it refined in the hubs of Singapore and Malaysia, even as it exports coal and gas in abundance — and then traces the shock's propagation through the tools of system dynamics: a causal loop diagram of the economy's feedback structure and a calibrated stock-and-flow simulation run across three oil prices ($70 before the war, $100, and $150 per barrel). The simulation finds that the shock is routed rather than absorbed. Balancing monetary loops keep the rupiah and inflation from spiraling — they overshoot and then settle — but a reinforcing fiscal–growth loop, fed by Indonesia's capped fuel and LPG prices, pushes the budget deficit past its three percent legal ceiling and makes the damage persist; the $100 case closely matches the conditions Indonesia is already living through in mid-2026. The burden falls regressively on households even as a coal-and-LNG export windfall cushions the national accounts. The paper concludes that the lasting cost is substantially a matter of policy: steering the shock out of the fiscal loop through a managed, partial price pass-through, protecting low-income households with targeted cash transfers, financing that protection from the export windfall, coordinating monetary and fiscal policy, and reducing the structural import dependence that makes Indonesia a transmission line for distant conflicts.

Keywords: energy security; oil price shock; Strait of Hormuz; fuel subsidies; system dynamics; Indonesia; fiscal policy

1 The War That Shouldn't Be

This paper is the first in Landscape Advisory's Geopolitics series, which examines how distant geopolitical ruptures travel through energy markets and into the Indonesian economy. Its subject is the war that opened in the Middle East in February 2026 and the closure of the Strait of Hormuz that followed — events fought thousands of miles from Indonesia that nonetheless reach Jakarta through the price of every imported barrel. The argument moves in four steps. It first establishes how the war drove global oil and gas prices sharply higher; it then maps Indonesia's particular exposure as a country that imports most of its liquid fuel even as it exports coal and gas in abundance; it traces, with a system-dynamics model, how the resulting shock propagates across inflation, the rupiah, the budget, and growth, and how the economy's feedback loops decide whether that disturbance settles or compounds; and it closes by asking what Indonesia can actually do about it. The central claim is that the lasting economic burden of a far-away conflict is, to a surprising degree, not imposed by the conflict itself but determined by how Indonesia chooses to absorb it.

1.1 Global Energy Prices Surge Amid the War

On February 28, 2026, the United States (US) and Israel launched a war on Iran — opening with a strike that killed Supreme Leader Ali Khamenei. Iran retaliated against Israel, US bases, and neighboring Gulf states.[1] Tehran's principal lever was the Strait of Hormuz, the narrow Persian Gulf outlet through which roughly one-fifth of the world's oil and a comparable share of its liquefied natural gas (LNG) move.[2] The Islamic Revolutionary Guard Corps (IRGC) declared the strait closed, laid mines, and attacked merchant vessels; marine insurance became unavailable or prohibitively expensive and crews refused the passage, leaving the waterway effectively shut.[3]

How long the disruption lasts is genuinely uncertain. More than three months in, the strait remains largely blocked; a two-week truce in April quickly frayed over disputes about Lebanon and mutual accusations of violations — only one tanker transited in the first 24 hours — and a 60-day understanding floated in late May had still not restored reliable traffic.[4] Even a durable ceasefire would not reset prices overnight: shipping, insurance, and Gulf production all have to be rebuilt, a matter of months rather than days, and the US Energy Information Administration (EIA) has lifted its 2026 Brent forecast to roughly $79 a barrel from $58 before the war, with elevated prices expected to persist into 2027.[5]

The price reaction was immediate and broad. Brent crude rose about 8 percent in the two trading days around the attack, from $71.32 to $77.24 a barrel, and later broke past $100 as the blockade held.[6] Gas moved more violently still: by March 9, 2026,

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[1] Stewart, P., P. Hafezi, M. Lubell, and A. Mills, 2026. "Iranian Leader Khamenei Killed in Air Strikes as U.S., Israel Launch Attacks," Reuters (February 28, 2026), https://www.aol.com/articles/israel-us-launch-strikes-iran-073649287.html (accessed on June 10, 2026).
[2] EIA (U.S. Energy Information Administration), 2025. "World Oil Transit Chokepoints", https://www.eia.gov/international/content/analysis/special_topics/World_Oil_Transit_Chokepoints/ (accessed on June 10, 2026).
[3] CRS (Congressional Research Service), 2026. *Iran Conflict and the Strait of Hormuz: Impacts on Oil, Gas, and Other Commodities*, CRS Report R45281, https://www.congress.gov/crs-product/R45281 (accessed on June 10, 2026).
[4] Taborda, J., 2026. "Oil Surges Past $100 on Ceasefire Doubts," *Trading Economics* (April 9, 2026), https://tradingeconomics.com/commodity/crude-oil/news/540675 (accessed on June 10, 2026).
[5] EIA, 2026. "Short-Term Energy Outlook", (March 2026), https://www.eia.gov/outlooks/steo/ (accessed on June 10, 2026).
[6] CRS, 2026, *op cit*.

European LNG futures had climbed roughly 77 percent and Asian futures about 51 percent above pre-war levels — a sharper jump than after Russia's 2022 invasion of Ukraine — as strikes on Qatar's Ras Laffan complex, a linchpin of global LNG supply, took output offline.[7] Within the US, for example, domestic gas prices stayed comparatively flat, underscoring that the shock falls hardest on import-dependent buyers in Europe and Asia — Indonesia among them — rather than on producers.[8]

The increases reach well beyond fuel. Because natural gas is the main feedstock for nitrogen fertilizer, and because about 30 percent of global fertilizer trade (along with 27 percent of traded oil and 20 percent of LNG) also passed through Hormuz in 2024, fertilizer prices have risen in step with energy, threatening crop yields and food security in import-dependent parts of South Asia and East Africa.[9] Costlier diesel and jet fuel raise the cost of moving goods and people, and higher generation costs feed through to electricity bills, so the war's imprint appears across gasoline, utilities, groceries, and headline inflation — pressures that, analysts emphasize, are likely to persist for as long as the conflict does.[10]

2 The Impacts of the Middle East War on Indonesia

2.1 Fuel Imports in Indonesia

In 2025 Indonesia imported 55.33 million tons of oil and gas worth $32.77 billion, with the largest shares recorded as arriving from Singapore and Malaysia.[11] Figure 2.1 below presents that total from two angles at once: the outer blue ring breaks the imports down by product, and the inner grey ring by ultimate source region. By product, crude oil bound for domestic refineries is the single largest category at about 37 percent of the chart, followed by the refined fuels Indonesia cannot produce enough of itself — gasoline (24 percent), diesel and gasoil (19 percent), and jet fuel (10 percent) — with Liquefied Petroleum Gas (LPG) for household cooking making up the remaining 10 percent; in value terms, refined petroleum alone reached $21.3 billion in 2024 and crude oil roughly $8.3 billion, while LPG imports came to 7.49 million tons worth $3.81 billion in 2025, about 70 percent of it from the US.[12] The inner ring re-sorts those same barrels by where the energy actually originated rather than where each cargo last shipped from, which is why the Middle East emerges as the dominant true source at roughly 38 percent even though comparatively little fuel is invoiced directly from the Gulf. That gap between recorded origin and true origin is exactly what a donut cannot capture — and

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[7] Higgins, T., and A. Thyagarajan, 2026. "The War in Iran Will Raise Fuel Prices and Costs Throughout the Economy," *Center for American Progress* (March 27, 2026), https://www.americanprogress.org/article/the-war-in-iran-will-raise-fuel-prices-and-costs-throughout-the-economy/; Hebebrand, C., J. Glauber, R. Vos, and B. Rice, 2026. "The Iran War's Impacts on Global Fertilizer Markets and Food Production," IFPRI (International Food Policy Research Institute) (April 2, 2026), https://www.ifpri.org/blog/the-iran-wars-impacts-on-global-fertilizer-markets-and-food-production/ (both accessed on June 10, 2026).

[8] CRS, 2026, *op cit*.

[9] Hebebrand, et al., 2026, *op cit*.

[10] Higgins, et al., 2026, *op cit*.

[11] Ridwan, A., 2026a. "Indonesia Imported Most of Its Oil and Gas from Singapore and Malaysia in 2025" Katadata Databoks (March 4, 2026), https://databoks.katadata.co.id/en/energy/statistics/69a7c94a2e865/indonesia-imported-most-of-its-oil-and-gas-from-singapore-and-malaysia-in-2025; Ridwan, A., 2026b. "Indonesia's Oil and Gas Imports Reached US$32 Billion in 2025," Katadata Databoks (March 5, 2026), citing data from BPS (Badan Pusat Statistik/ Statistics Indonesia), https://databoks.katadata.co.id/en/energy/statistics/69a8ed711513e/indonesias-oil-and-gas-imports-reached-us32-billion-in-2025 (both accessed on June 10, 2026).

[12] Yustika, M., and R.N. Iyer, 2026. "'Golden Age' or Energy Dependence? Evaluating the Indonesia–US Trade Deal amid Middle East Turmoil," IEEFA (Institute for Energy Economics and Financial Analysis) (March 11, 2026), https://ieefa.org/resources/golden-age-or-energy-dependence-evaluating-indonesia-us-trade-deal-amid-middle-east (accessed on June 10, 2026); Setiabudi, P., 2026. "Indonesia's March LPG Imports Slump as Middle East Supplies Dry Up," Petromindo (May 7, 2026), citing BPS data, https://www.petromindo.com/news/article/indonesia-s-march-lpg-imports-slump-as-middle-east-supplies-dry-up (accessed on June 10, 2026).

what the Sankey diagram (Figure 2.2) below sets out to trace, following each fuel from its original producer, through the refining and trading hubs that process and relabel it, to its final consumption in Indonesia.

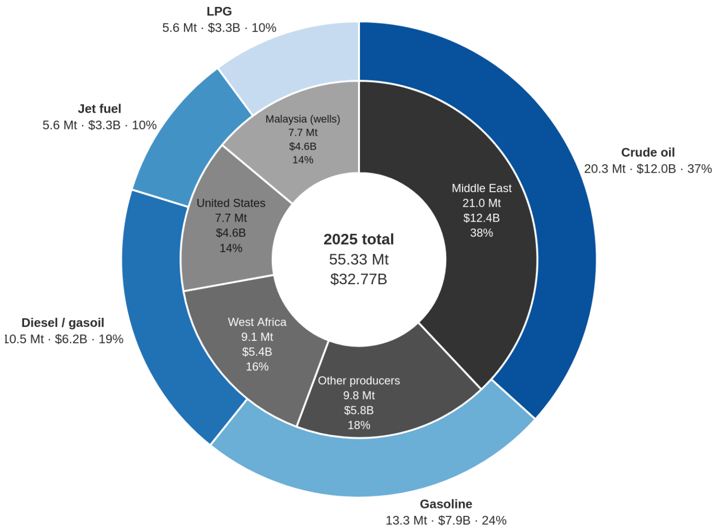

Figure 2.1. Indonesia's 2025 oil and gas imports — $32.77 billion and 55.33 million tons — shown by ultimate source region (inner ring) and by product type (outer ring). Per-slice tons and dollars are approximate, scaled to the BPS annual totals, and source attribution is modeled rather than customs-recorded.

Indonesia produces more than enough coal and gas to export, but it depends heavily on imports for the liquid fuels that power its vehicles, aircraft, and kitchens. The headline trade figures credit Singapore and Malaysia with the largest shares — yet those numbers only show where each cargo last shipped from, not where the energy actually originated. The diagram below traces the full chain: from the wellheads that pump the raw crude, through the refineries and trading hubs that process and re-export it, to the fuels Indonesians finally consume.

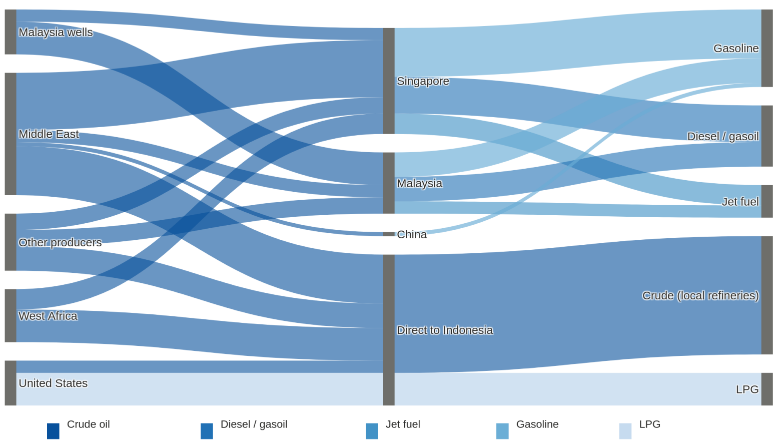

Figure 2.2. Indonesia's imported energy supply chain by fuel type, traced from original producers through refining and trading hubs to final consumption. Flows are approximate and illustrative: customs data records only a cargo's immediate origin, not the ultimate source of refined products.

The Sankey diagram in Figure 2.2 makes visible the step Figure 2.1 must leave out: the journey each shipment takes between producer and pump. Read it left to right — the grey bars are the players at three stages (original producers, then the refining and trading hubs, then the products delivered into Indonesia), while the colored ribbons are the fuels, each holding a single shade of blue from the darkest (raw crude) through the lighter tones of gasoline, diesel, jet fuel, and LPG.

The pivotal moment is the middle column. Dark crude arrives from the Middle East, West Africa, and beyond, enters Singapore and Malaysia, and leaves again as lighter-colored gasoline, diesel, and jet fuel — the change of shade marking the refining itself. This is what lets a country with almost no crude of its own sit atop Indonesia's import ledger: Singapore accounted for 14.63 million tons of oil-and-gas imports in 2025, or 26.4 percent of the total, worth \$9.72 billion, and Malaysia for a further 8.20 million tons (14.8 percent), worth \$5.31 billion — most of it product these hubs refined or blended rather than pumped.[13]

Running parallel is the "Direct to Indonesia" band — cargoes that bypass the hubs, dominated by crude sailing straight to Indonesia's own refineries and by LPG shipped directly from the United States. So much crude arrives raw because of a domestic shortfall that keeps widening: national output slipped from 606,000 barrels per day in 2023 to 580,000 in 2024, against crude demand of 789,000 barrels per day, with Nigeria, Angola, and Saudi Arabia the chief suppliers filling the gap.[14] With total petroleum consumption near 1.6 million barrels per day, the country's aging refineries can satisfy only about 60 percent of national demand.[15]

The diagram's deeper lesson is structural: close to half of Indonesia's imported energy reaches it only after passing through a refiner or trader, so the country's energy security rests as much on a few processing chokepoints — Singapore's refineries, the Straits of Malacca and Hormuz — as on the producers themselves. That architecture is now being deliberately rewired. Under the Agreement on Reciprocal Trade (ART) signed in February 2026, Indonesia pledged to buy \$3.5 billion of LPG, \$4.5 billion of crude oil, and \$7 billion of refined fuel from the United States, redirecting existing purchases away from Southeast Asian, Middle Eastern, and African suppliers rather than adding to the total.[16]

2.2 The Economic Impacts of the Price Hikes on Imported Fuels

Indonesia sits in a peculiar spot: it is a net oil and fuel importer (the exposure mapped below) but also the world's top thermal-coal exporter and a major LNG exporter. So a Hormuz shock hits it hard on the import side while handing it a partial windfall on the export side — Table 2.1 below reflects both. Severity is a qualitative judgment assuming a sustained, severe disruption; it would scale up the longer the strait stays choked and the higher prices climb.

The shock does not stay in the fuel market. Because Indonesia imports much of its oil, refined fuel, and LPG — and subsidizes them at the pump — a simultaneous squeeze on supply and a jump in import prices radiates outward through the trade balance, the state budget, the currency, and household spending. The table below maps that

[13] Ridwan, A., 2026a, op cit.; Ridwan, A., 2026b, op cit.
[14] Yustika, M., and R.N. Iyer, 2026, op cit.
[15] Hanan, A., 2025. "Why Oil-Rich Indonesia Imports Most of Its Fuel," *Asia Times* (October 10, 2025), https://asiatimes.com/2025/10/why-oil-rich-indonesia-imports-most-of-its-fuel/ (accessed on June 10, 2026).
[16] Yustika, M., and R.N. Iyer, 2026, op cit.

propagation: each economic indicator likely to be affected, the mechanism that transmits the shock to it, and a rough severity rating (low, mid, or high).

Economic Indicator	Transmission Mechanism	Severity
Headline inflation (CPI)	Cost-push from pricier imported crude, fuel, and LPG flows into transport, utilities, and — with a lag — food and manufactured goods.	High
Fuel & LPG supply / energy security	Hormuz closure cuts the Gulf crude feeding the Singapore and Malaysian refineries that supply much of Indonesia's fuel, plus direct Gulf crude; shortage and rationing risk, though the ~70 percent of LPG sourced from the US is partly insulated.	High
Fiscal balance & energy-subsidy bill	Fuel, 3-kg LPG, and electricity prices are administered, so the state absorbs the gap between surging import costs and capped retail prices through subsidies and Pertamina/ PLN compensation, overshooting budget ceilings.	High
Oil-&-gas trade balance / current account	The import bill jumps on both higher prices and the cost of sourcing scarce barrels, widening the external deficit (coal and LNG export gains provide an offset at the aggregate level).	High
Rupiah (IDR) exchange rate	A wider external deficit plus risk-off capital outflows pressure the rupiah; depreciation then re-amplifies import costs in a feedback loop.	High
Household purchasing power & poverty	Energy and food take a large share of low-income budgets, making the shock regressive and capable of pushing vulnerable households below the poverty line.	High
Transport & logistics costs	Diesel and jet fuel feed directly into freight, shipping, and aviation across an archipelagic, logistics-intensive economy.	High
Monetary policy / Bank Indonesia rate	BI faces pressure to hold or hike to defend the rupiah and anchor inflation expectations, even as growth softens — a policy bind.	Mid
GDP growth	Real-income erosion, higher input costs, subsidy crowding-out of productive spending, and investment uncertainty drag on output.	Mid
Manufacturing input costs & competitiveness	Higher energy and petrochemical-feedstock (naphtha/LPG) costs lift production costs and can force output cuts.	Mid
Agriculture, fertilizer & food	Gas-linked nitrogen fertilizer (partly Gulf-sourced) and farm/irrigation diesel rise, lifting production costs and feeding food inflation on a lag.	Mid
Electricity sector (PLN)	Gas- and diesel-fired generation costs climb, straining PLN finances and tariffs; the coal-heavy generation mix is a partial domestic buffer.	Mid
Financial markets (JCI, bond yields, capital flows)	Risk-off sentiment and portfolio outflows lift sovereign yields and weigh on equities, especially import-dependent sectors.	Mid
Aviation & tourism	Jet-fuel spikes raise airfares and travel costs, denting tourism demand.	Mid
Sovereign & corporate FX-debt servicing	Rupiah depreciation and higher yields raise the local-currency cost of foreign-currency debt.	Mid
Social & political stability	Fuel-price increases are historically sensitive in Indonesia; subsidy adjustments risk public discontent.	Mid
Coal & LNG export earnings	As a top coal and LNG exporter, Indonesia gains revenue when global energy prices spike, partially offsetting the import-side damage.	Mid (favorable)

Table 2.1. Estimated economy-wide impacts on Indonesia of choked energy imports and higher import prices from the Strait of Hormuz disruption, showing the transmission mechanism and a qualitative severity rating for each indicator. Severity is an analytical judgment assuming a sustained, severe disruption, and reflects both the import-side damage and the partial cushion from Indonesia's coal and LNG export earnings.

The heaviest effects cluster where Indonesia is structurally most exposed. As a net oil importer, it feels the price spike first through a larger oil-and-gas import bill, which widens the current-account deficit and pulls the rupiah lower; and because the government caps pump and cooking-gas prices, the same spike inflates the fuel and LPG subsidy bill and, with it, the fiscal deficit — by official estimates every $1 rise in crude adds on the order of Rp1.1-1.5 trillion to the LPG subsidy burden alone, against an energy-subsidy budget already above Rp200 trillion.[17] Those external and fiscal channels, together with the direct pass-through into inflation, transport, and food costs, land squarely on households — eroding real purchasing power and pushing more families toward the poverty line. Each of these earns a high rating not in isolation but because they fire at once, through different parts of the economy.

What turns a one-off shock into a drawn-out drag is the way these channels feed one another. A weaker rupiah raises the local-currency cost of every imported barrel, adding a second wave of imported inflation; Bank Indonesia typically answers with higher interest rates, which steady prices and the currency but tighten credit and slow growth; and a wider deficit meeting weaker growth becomes self-reinforcing, as softer activity erodes the tax base that would otherwise close the gap. The causal-loop diagram makes these circuits explicit, but the practical takeaway is simpler: the damage compounds rather than dissipating, which is why even a moderate-looking hit to headline GDP can persist for several quarters.

One force works in the opposite direction. As a major exporter of coal and LNG, Indonesia earns a windfall when global energy prices climb — much as record 2022 coal prices once delivered a fiscal bonanza — and that revenue cushions both the external accounts and the government's coffers; indeed, Jakarta has begun directing new coal and nickel export duties and a proposed windfall tax toward closing the subsidy gap.[18] But the buffer is uneven: it accrues to exporters and to the aggregate balance sheet, while the costs fall on commuters, small manufacturers, and lower-income households who spend a larger share of their budgets on fuel and food. The net effect is therefore less a uniform contraction than a regressive squeeze — manageable in the macro aggregates, painful at the household level — and its severity scales directly with how long the Strait of Hormuz stays closed.

2.3 Simulating the Impacts using System Dynamics

The previous subsection inventoried the shock's effects and ranked them by severity, but a list of indicators — however carefully ranked — can obscure the fact that an economy is not a set of independent dials. Each row of that table is wired to the others. For example, a weaker rupiah raises inflation, inflation moves the policy rate, the policy rate bears back on both growth and the currency, and a wider deficit feeds the very slowdown that widens it further. To reason about effects that loop back on their causes, accumulate over time, and arrive with delays, we turn to the framework of *system dynamics* — the modeling approach developed by Jay Forrester at MIT in the 1950s to explain how the feedback structure of a complex system, rather than any single outside push, generates its behavior over time.[19] Its guiding premise is that durable insight, and durable policy, come from mapping that structure before quantifying it.[20] Its first tool for

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[17] Hasjanah, K., 2026. "Indonesia's Energy Subsidy Outlook and Deficit Risks amidst Oil Price Volatility, Opportunities for Savings through Transportation Electrification," IESR (Institute for Essential Services Reform), https://iesr.or.id/en/indonesias-energy-subsidy-outlook-and-deficit-risks-amidst-oil-price-volatility-opportunities-for-savings-through-transportation-electrification/ (accessed on June 10, 2026). Soeriaatmadja suggests a different figure, that every $1 rise in crude adds roughly Rp6.8–Rp10 trillion to the annual fuel-subsidy bill (government estimates), while the World Bank estimates that commodity-price surge pushed fuel and electricity subsidies from 1.7 percent of GDP (2021) to 2.8 percent of GDP — Rp551.2 trillion — in 2022. See Soeriaatmadja, W., 2026. "Indonesia Clings to Fuel Subsidies despite Oil Price Surge, Worrying Economists," *The Straits Times* (May 20, 2026); Ihsan, A., D.E. Abriningrum, B.S. Suharnoko, A. Rahmawati, and S. Giannozzi, 2024. *Indonesia's Fuel Subsidies Reforms* (May 29, 2024). World Bank, Jakarta.
[18] Setiawan, D., 2025. *Chasing Volume, Losing Value: The Cost of Coal Over-Expansion in Indonesia* (November 6, 2025). EMBER, Jakarta; "Indonesia to Impose Export Duties, Windfall Tax on Coal, Nickel," *Antara News* (May 4, 2026), https://en.antaranews.com/news/414635/indonesia-to-impose-export-duties-windfall-tax-on-coal-nickel (accessed on June 10, 2026).
[19] Forrester, J.W., 1961. *Industrial Dynamics*. MIT Press, Cambridge, MA.
[20] Meadows, D.H., 2008. *Thinking in Systems: A Primer*, edited by D. Wright. Chelsea Green Publishing, White River Junction, VT.

doing so is the causal loop diagram, which represents a system as a set of variables joined by signed links and exposes the reinforcing and balancing loops that decide whether a disturbance is amplified or contained.[21] For an oil-price shock striking an economy as interconnected as Indonesia's, that is exactly the question worth asking: not how far each indicator moves on its own, but which loops dominate — and therefore whether the shock settles or compounds.

Where Table 2.1 catalogs the shock's effects and the simulation in Section 2.4 quantifies them, the causal loop diagram in Figure 2.3 below shows how they connect. Built in the system-dynamics convention, it renders the energy-import shock as a web of cause-and-effect links — each marked "+" where two variables move in the same direction and "–" where they move in opposite directions — and isolates the feedback loops that determine whether the disturbance fades or feeds on itself.

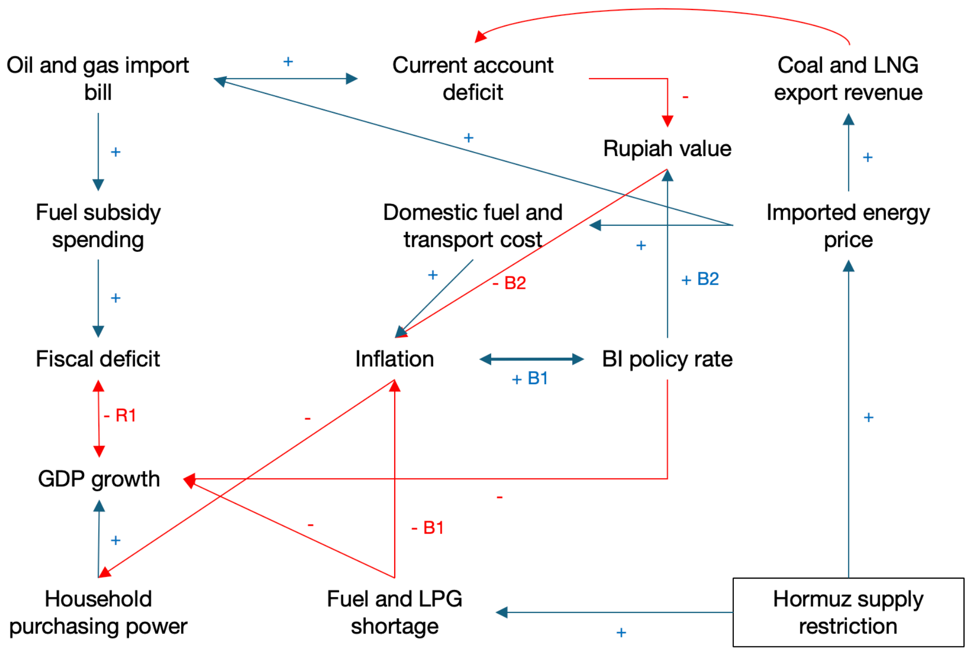

Figure 2.3. Causal loop diagram of Indonesia's energy-import shock. In the system-dynamics convention: links are marked "+", in blue line, where variables move together and "–", in red line, where they move in opposite directions. Three feedback loops shape the response — B1 (monetary stabilization) and B2 (currency defense), both balancing, and R1 (the reinforcing fiscal–growth vicious cycle) — while coal and LNG export revenue is the one force working to offset the shock.

Read outward from the left, the diagram first traces a one-directional cascade. The Strait of Hormuz restriction lifts imported-energy prices and creates physical fuel and LPG shortages; the price rise flows into a heavier oil-and-gas import bill, higher domestic fuel and transport costs, and a larger subsidy bill; and those in turn drive inflation, the fiscal deficit, the current-account deficit, the rupiah, and ultimately household purchasing power and growth. Taken link by link, this is the same chain the table lays out — but the diagram's real content is in the arrows that turn back on themselves.

Three feedback loops govern the system's behavior. The first two are balancing, meaning they work against the shock. In loop B1, monetary stabilization, rising inflation

[21] Sterman, J.D., 2000. *Business Dynamics: Systems Thinking and Modeling for a Complex World*. Irwin/McGraw-Hill, Boston.

pushes Bank Indonesia to raise its policy rate, and the higher rate pulls inflation back down — a self-correcting circuit that caps price growth at the expense of slower activity. In loop B2, currency defense, a weaker rupiah feeds imported inflation, which lifts the policy rate, which in turn supports the rupiah. Together these loops are why, in the simulation, the rupiah and inflation overshoot and then settle rather than spiral. The third loop, R1, is reinforcing, and therefore dangerous: a wider fiscal deficit drags on GDP growth, and weaker growth erodes the revenue base that would close the deficit, so the two compound one another. Whether the overall disturbance dissipates or persists depends on which tendency dominates — and it is R1 that stretches the damage out over many quarters.

One link runs counter to the rest. Shown in green, coal and LNG export revenue rises with the same global energy prices that cause the harm, easing the current-account deficit and, through royalties and export levies, the budget. It is the system's only built-in stabilizer that does not require a policy response — but it accrues to exporters and the national accounts, not to households, which is why the diagram's relief and its costs sit in different places. The structure also makes the central policy tension visible: holding subsidized fuel prices steady routes the shock into the reinforcing fiscal loop (R1), while releasing them diverts it into the balancing monetary loops (B1, B2) as inflation — the same lever, traced as a choice between which part of the system absorbs the blow.

2.4 The Result of the Simulation

Having mapped the shock's feedback structure, we now let it run. The stock-and-flow model translates the causal loop diagram into equations, takes the pre-war economy as its starting point, and is calibrated so that its \$100-per-barrel case reproduces the conditions Indonesia is actually living through in mid-2026 — a match that lends some confidence to the \$150 case it then extrapolates. Table 2.2 below reports the result. The level at which each key indicator settles under three oil prices — the pre-war baseline of roughly \$70, a \$100 scenario, and a \$150 scenario — read against the first column as the point of departure.

Indicator (mechanism via the CLD)	**Pre-war (~\$70)**	**\$100 / bbl**	**\$150 / bbl**
Oil price (driver)	~\$70	\$100	\$150
Rupiah (Rp/USD) — import bill + risk-off, net of rate defense	16,500	~17,600 (≈ +6–7%)	~19,300 (≈ +17%)
Inflation (% YoY) — imported inflation via rupiah + food	~2.6	~3.3	~4.4
BI policy rate (%) — Taylor response + currency defense (B1, B2)	4.75	~5.3	~6.4
Energy subsidy bill (Rp tn) — capped pump/LPG prices absorb the spike	~390	~660 (+270)	~1,110 (+720)
Fiscal deficit (% GDP) — subsidy minus coal/nickel levy offset	2.68	~3.4	~4.7
Current-account balance (% GDP) — wider migas bill, part-offset by coal/LNG	~−1.0	~−1.8	~−3.0
GDP growth (%) — drag from rates, prices; export-windfall cushion (R1)	~5.1	~4.9	~4.5
Household purchasing power (real) — fuel/food share of budget	baseline	~−1%	~−3%
Coal & LNG export windfall (\$bn/yr) — the balancing buffer	0	+~12	+~32

Table 2.2. Modeled response of Indonesia's key macroeconomic indicators to higher oil prices, comparing the pre-war baseline (~\$70 per barrel) with \$100 and \$150 scenarios. Figures are equilibrium outcomes from an illustrative stock-and-flow simulation, calibrated so that the \$100 column approximates conditions actually observed in mid-2026; the model holds subsidized fuel and LPG prices fixed, so the fiscal-deficit values reflect the budgetary burden before any offsetting price increase.

Read across the rows, the table shows the shock arriving through several channels at the same time. The rupiah weakens from about Rp16,500 to the dollar to roughly Rp17,600 at $100 oil and to about Rp19,300 at $150; inflation climbs from around 2.6 percent to roughly 3.3 and then 4.4 percent; and Bank Indonesia's policy rate is pulled from 4.75 percent toward 5.3 and then 6.4 percent as it leans against both. The fiscal block moves furthest: with pump and cooking-gas prices held, the energy-subsidy bill swells by some Rp270 trillion at $100 and by about Rp720 trillion at $150, widening the budget deficit from its 2.68 percent baseline to roughly 3.4 and then 4.7 percent of GDP, while the current-account balance slips from about −1.0 percent to −1.8 and then −3.0 percent. Growth softens only modestly in level terms — to about 4.9 and then 4.5 percent — and household purchasing power falls by around 1 and then 3 percent, the cost landing most heavily on those who spend the largest share of their budgets on fuel and food. The lone entry pointing the other way is the coal-and-LNG export windfall, worth roughly $12 billion and $32 billion a year, which cushions the external and fiscal accounts but not households. That the $100 column lands so close to today's observed readings is the table's most reassuring feature — and its most sobering, since it places Indonesia already on the lower of the two shock paths.

The deficit row is the one to dwell on, because both scenarios breach the 3 percent ceiling that Indonesian law places on the budget gap. That figure is therefore best read as a fiscal-burden estimate under an unchanged-prices assumption: in practice the cap forces a choice, and once authorities raise subsidized fuel prices to defend the budget, the same shock is redirected out of the deficit row and into the inflation and purchasing-power rows, sharper than the table shows. The columns, in other words, describe where each scenario lands — but not how it gets there, nor how long it stays. For that we turn to the trajectories.

Figure 2.4. Energy shock simulation on key Indonesian macro-economic indicators, 24 month dynamic response.

Figure 2.4 above traces the same three scenarios month by month over the two years following the shock, and it reveals behavior the levels alone conceal. The rupiah panel shows the signature of the currency-defense loop (B2): the exchange rate overshoots on the initial outflow — most visibly in the $150 path, which spikes past Rp19,400 — before the central bank's rate hikes claw part of it back and the rate settles. Inflation does not jump but builds with a lag, cresting around the ninth to twelfth month as the weaker rupiah feeds through, while the policy rate climbs alongside it; this is the monetary-stabilization loop (B1) at work, capping prices at the cost of slower activity. Because these two loops are balancing, the currency, inflation, and the rate all overshoot and then steady — the disturbance is contained.

The fiscal and growth panels tell a different, less comforting story. The deficit crosses the 3 percent legal cap within the first few months in both scenarios and keeps rising rather than leveling off, and growth drifts downward slowly, still sliding at the two-year mark in the $150 case rather than finding a floor. This is the fingerprint of the reinforcing loop (R1): a wider deficit drags on growth, weaker growth erodes the revenue that would close the deficit, and the two feed each other. The practical lesson of the trajectories is that the danger of this shock lies less in the height of any single peak — the balancing loops see to that — than in its duration: the fiscal and growth damage accumulates and persists, and at $150 the economy has not returned to equilibrium even after twenty-four months.

3 Policy Implications: What Should Indonesia Do?

The simulation reframes the policy question. An oil-price shock of this kind is not something Indonesia can absorb or avoid; it is something the economy routes, and the model shows that the government retains real influence over where it goes and how long it lingers. The damage is governed by feedback loops, and the most consequential of them — the reinforcing fiscal–growth cycle — is also the one most exposed to policy choice. The task, then, is not to pretend the shock can be neutralized but to steer it toward the channels where it does the least lasting harm, to shield the households least able to bear it, and to finance the response from the one part of the economy the same shock enriches. Four lines of action follow from the analysis.

The first and most urgent concerns the subsidy. The model is unambiguous that holding pump and cooking-gas prices fixed routes the shock straight into the reinforcing fiscal loop — the subsidy bill swells by hundreds of trillions of rupiah, the deficit breaches its three percent legal ceiling, and the resulting drag on growth feeds back into the deficit and persists for years. Because every dollar of crude adds an estimated Rp6.8 trillion to Rp10 trillion to the fuel-subsidy bill, and a further Rp1.1 trillion to Rp1.5 trillion to the LPG bill, the universal price cap becomes fiscally explosive precisely when oil is dearest.[22] It is also regressive: the bulk of the benefit flows to wealthier, car-owning households rather than to the poor.[23] The prudent course is therefore a managed, partial pass-through — allowing subsidized prices to rise rather than letting the subsidy bill detonate — which diverts the shock out of the self-amplifying fiscal loop and into the inflation channel, where the balancing monetary loops contain it.

That pass-through, however, cannot be left to fall on households indiscriminately, because the same model shows real purchasing power declining most for those who spend the largest share of their budgets on fuel and food. The accompanying move, then, is to replace a blanket price subsidy with targeted income support — expanded direct cash assistance to low-income households — exactly the pairing Indonesia deployed when it raised fuel prices in 2022.[24] Targeted transfers deliver far more protection per rupiah than a universal price cap and shield the vulnerable from the inflation that the pass-through deliberately permits, converting a regressive instrument into a progressive one while relieving the budget.[25]

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[22] Ihsan, et al., 2024, *op cit*.; Soeriaatmadja, 2026, *op cit*.
[23] Soeriaatmadja, 2026, *op cit*.; Hasjanah, 2026, *op cit*.
[24] Ihsan, et al., 2024, *op cit*.
[25] *ibid*.; Hasjanah, 2026, *op cit*.

The third action is to finance all of this from the windfall the shock itself generates. Indonesia is a major exporter of coal and LNG, and the high global prices that strain its import bill simultaneously enrich its export earnings and resource royalties.[26] Capturing that windfall deliberately — through the coal and nickel export duties and windfall tax the government has already begun to introduce — and earmarking the proceeds for the targeted transfers and for defending the fiscal anchor turns a passive, uneven buffer into a financed and purposeful one.[27] This is the natural hedge embedded in Indonesia's own trade structure; the policy task is simply to route the export gains to the households and accounts the import shock has hurt. Monetary policy should play a supporting, coordinated role: Bank Indonesia's pre-emptive tightening is the correct instinct for containing the currency-and-inflation loops, but the simulation warns that over-tightening deepens the growth drag, so fiscal credibility must be preserved well enough that the central bank is not forced to overcompensate — and so that a widening deficit does not invite the sovereign-risk repricing that would intensify the reinforcing loop, a balance the IMF underscored in its most recent Article IV review, which judged the economy resilient but with risks tilted firmly to the downside.[28]

The fourth line of action looks past the immediate episode to the exposure that makes Indonesia a transmission line for distant wars in the first place. On the supply side, the physical-shortage channel argues for strategic fuel and LPG buffer stocks and for supplier diversification; the recent agreement to source more crude and LPG from the United States already reduces dependence on Middle Eastern flows transiting the Strait of Hormuz, and that logic should extend to storage and domestic refining capacity so that a future chokepoint does not force rationing.[29] On the demand side, the deepest structural fix is to shrink the oil bill at its source — most notably through transport electrification, which would lower the subsidy regime's sensitivity to crude prices and is, by the same token, a fiscal-resilience measure as much as a climate one.[30] Taken together, these convert a recurring vulnerability into a managed one.

The sequencing and politics matter as much as the substance. Fuel prices are among the most combustible issues in Indonesian public life, and rising living costs have already drawn protests; transfers must therefore be in place and visible before prices are allowed to move, the windfall's use must be transparent, and the fiscal anchor must be defended credibly rather than rhetorically.[31] The overarching message of the simulation is that the lasting damage from a price shock is, to a substantial degree, a policy choice rather than a fixed consequence: steer the shock out of the reinforcing fiscal loop, protect households directly, pay for the response from the export windfall, and steadily reduce the import dependence that gives a Gulf crisis such purchase over Jakarta's budget.

4 Concluding Note

A war Indonesia neither started nor could influence, fought far beyond its own waters, still arrives on its budget and in its kitchens. The mechanism is the country's split energy identity: a heavy importer of crude, refined fuel, and LPG, and at the same time one of the world's largest exporters of coal and gas. The Strait of Hormuz disruption therefore strikes the import side hard while handing back a partial windfall on the export side, and

[26] Setiawan, 2025, *op cit*.
[27] *Antara News* (May 4, 2026), *op cit*.
[28] "IMF Executive Board Concludes 2025 Article IV Consultation with Indonesia," Press Release No. 26/010, IMF (International Monetary Fund), (January 21, 2026), https://www.imf.org/en/news/articles/2026/01/21/pr-26010-indnonesia-imf-executive-board-concludes-2025-article-iv-consultation (accessed on June 10, 2026).
[29] Yustika and Iyer, 2026, *op cit*.
[30] Hasjanah, 2026, *op cit*.
[31] Soeriaatmadja, 2026, *op cit*.; Yustika and Iyer, 2026, *op cit*.

the net burden depends on how those two forces are managed. The simulation's central finding is that the shock is not absorbed but routed: the balancing monetary loops keep the rupiah and inflation from spiraling, overshooting and then settling, while the reinforcing fiscal–growth loop is what turns a price spike into a drag that persists for years. Sobering, too, is that the $100 scenario already mirrors the conditions of mid-2026 — Indonesia is not contemplating the lower of the two shock paths, it is living it.

The most important conclusion follows directly: the durable damage is substantially a matter of choice. Steering the shock out of the self-amplifying fiscal loop through a managed, partial pass-through; shielding the households that can least afford it with targeted cash transfers rather than blanket subsidies; financing that protection from the very export windfall the shock creates; coordinating monetary and fiscal policy so neither overcorrects; and steadily shrinking the import dependence underneath it all — none of these neutralizes the disruption, but together they decide whether Indonesia experiences a manageable squeeze or a self-perpetuating contraction.

That last point reaches beyond this episode. Hormuz is one chokepoint among several, and a Gulf war is one shock among many that an archipelago reliant on imported liquid fuel and on a handful of refining and shipping chokepoints will face again. The lesson of this assessment is therefore one of preparedness rather than prediction: buffer stocks, diversified suppliers, domestic refining, and a less oil-dependent transport system are worth building before the next disruption, wherever it originates. The cheapest time to reduce that exposure is while the strait is open.

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