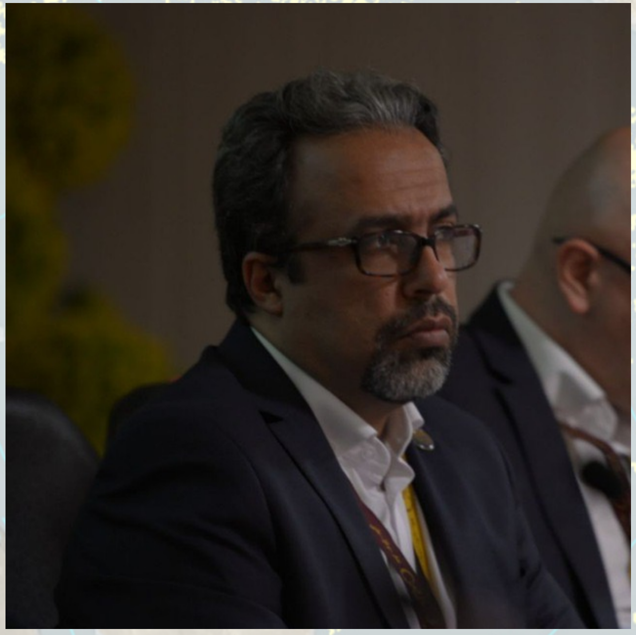


Closing the Strait of Hormuz: Impact Analysis (Israel-Iran War)

Alireza Zamanian Jazi

Project Management & Supply Chain Strategist

BOIS BRIGHT OCEAN

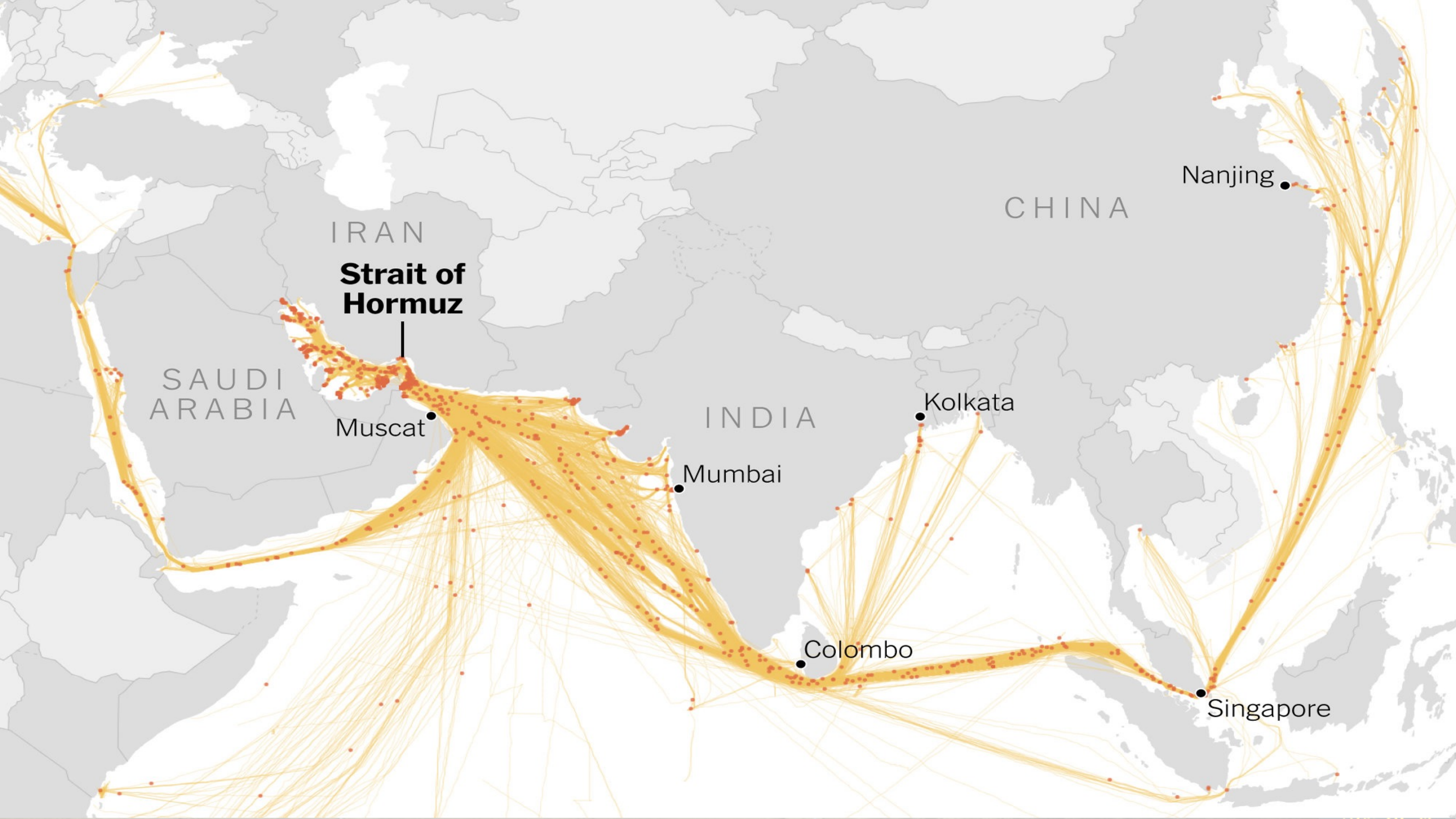
SOLUTIONS
Your Partner to General Contracting Excellency

Scenario

Iran closes the Hormuz choke-point (~20% of world oil transit), triggering supply shocks across industries. Key focus: supply chains, commodity prices, industry output, regional economies, markets, and mitigation.

BOIS BRIGHT OCEAN

GC SOLUTIONS
Your Partner to General Contracting Excellency


IRAN
Strait of Hormuz
SAUDI ARABIA
Muscat
INDIA
Mumbai
Kolkata
Colombo
CHINA
Nanjing
Singapore

Global Supply Chains: Short-Term (0–3 months)

- **Maritime rerouting:** Ships (oil & container) avoid Gulf/Red Sea, rerouting around Africa adds ~7–13 days and ~$1M per voyage .
- **Costs and capacity:** War-risk insurance jumps 300–400% in Gulf, fuel and surcharge costs rise; tanker freight rates up ~12–15% . Many vessels become tied-up longer, cutting effective capacity (~15%) .
- **Port congestion:** African/Mediterranean hubs (e.g. Durban, Malta) see surge traffic, straining port/warehousing capacity .
- **Air freight delays:** Airlines suspend/re-route flights over Iran/Gulf (e.g. Emirates, Qatar, Lufthansa); routes via Caspian/India add hours and 2–3× cost per kg for Asia–Europe cargo .
- **JIT disruption:** “Just-in-time” inventories break; companies must extend lead times or air-ship critical parts, raising costs and shortage risk .

BOIS BRIGHT OCEAN

GC SOLUTIONS Your Partner to General Contracting Excellency

Global Supply Chains: Long-Term (3+ months)

- **Permanent rerouting:** Persistent Gulf risk entrenches Africa loop routes, permanently longer transit times. Global shipping capacity remains ~10–15% lower due to longer voyages .
- **Network adaptation:** Firms diversify routes – increasing use of Trans-Caspian rail, Turkey-Greece corridors, and pipeline networks. Inventory buffers and regional distribution centers expand to mitigate delays .
- **Logistics investments:** Shipping/logistics companies invest in new terminals and alternate paths (e.g. East African pipelines, Suez expansion). Some idle vessels or convert to other routes.
- **Shipping industry impact:** Freight rate volatility persists; shipping stocks have jumped on higher rates (e.g. GE Shipping, SCI +13%) . Insurers and underwriters may form pooled war-risk coverage.
- **Strategic stockpiles:** Corporates and governments build or tap reserves (fuel, inputs, parts). Higher inventories become the norm (“just-in-case” strategy) to absorb supply-chain shocks.

Commodity Markets: Oil & Gas

- **Crude oil surge:** Brent spiked ~8–14% on conflict news . Analysts warn a Hormuz blockade could lift Brent above $100/bbl ; JP Morgan's worst-case is $120–130/bbl .
- **Supply offsets:** Gulf producers maximize alternative routes. Saudi Arabia (~5m bpd via Red Sea pipeline, up to 7m with expansion) and UAE (1.5m bpd via Fujairah pipeline) bypass Hormuz . Still, Iraq/Kuwait remain exposed via the Gulf.
- **Strategic reserves:** IEA members stand ready to release oil stocks if needed . Rising non-ME supply (US shale, Brazil, Canada) helps cushion shocks .
- **LNG disruption:** Qatar (≈19% global LNG exports) and UAE supply ~25% of China's LNG via Hormuz . Closure forces buyers (China, Japan, Korea) to scramble for LNG from Australia, U.S., Russia . Global LNG spot prices would surge on demand diversion.
- **Gas & other fuels:** Tight gas markets (especially in Asia/Europe) as LNG reroutes. Coal and alternative fuels (oil products, fuel oil) may see temporary demand boost.

BRIGHT OCEAN

SOLUTIONS
Your Partner to General Contracting Excellency

Commodity Markets: Agriculture & Metals

- **Food and feed:** Higher energy and shipping costs push up fertilizer and transport costs for grains/oilseeds. This tends to raise global food prices, especially in energy-intensive items (meat, dairy). Food-importing nations (MENA, Africa) face steep import bills.

- **Fertilizers:** Middle East conflict historically elevates ammonia/urea prices (gas feedstock disruption in Iran/Gulf). Scarcity of fertilizer inputs (N/P/K) strains crop yields and increases fertilizer export prices.

- **Base metals & precious metals:** Energy-intensive metals (aluminum, copper) see production/distribution cost increases. Precious metals (gold) rally as safe-haven assets. Industrial metal supply chains slow due to shipping bottlenecks and port congestion.

- **Agricultural trade flows:** Core exporters (US, Black Sea, Brazil) less directly hit but pay higher freight. Some countries may impose export curbs on grains or sugar to control domestic inflation, exacerbating global shortages.

Pricing & Inflation

- **Energy-driven inflation:** Oil/gas price spikes translate immediately into higher gasoline, diesel, jet fuel, and electricity costs. This reverses recent disinflation trends and risks rekindling broad inflation .
- **Consumer prices:** Inflation forecasts jump. (E.g. analysts warn sustained energy gains could reverse U.S. CPI cooling .) Consumer fuel prices rise quickly; transit fare/housing costs may also climb.
- **Second-round effects:** Higher input costs flow into manufacturing, shipping and food prices, boosting overall CPI. Companies tighten margins or pass costs to customers.
- **Central bank response:** Likely delay on rate cuts or added tightening if inflation jumps. In emerging markets, currency pressures from energy import bills may force tighter policy, potentially slowing growth.
- **Global outlook:** Inflation rates in Asia and Europe would rise above 2025 targets. Low-income countries (with limited fiscal buffers) face severe inflation spikes and possible social unrest

BRIGHT OCEAN

SOLUTIONS
Your Partner to General Contracting Excellency

Industry Effects: Energy Sector

- **Oil & gas producers:** Gulf exporters (KSA, UAE) enjoy revenue windfalls but must guard infrastructure (e.g. Houthis in Yemen threaten Red Sea routes). They run pipelines at full tilt to replace Hormuz flows . OPEC quotas may relax.
- **Iran:** Paradoxically benefits from higher prices, but actual oil exports are hit by sanctions and conflict. The regime may consider sabotage (e.g. Gulf shipping) to leverage prices, but risk military retaliation.
- **US shale and other producers:** Higher prices incentivize more shale drilling and Arctic/deepwater development, but real supply takes months. Short-term oil supply growth limited; medium-term U.S. output will climb.
- **Electricity & gas utilities:** In countries burning oil for power (e.g. parts of MENA, Caribbean), generation costs surge, pushing up electricity tariffs or forcing government subsidies.
- **Renewables & alternatives:** Crisis accelerates investment in alternatives (EVs, solar, storage) as nations seek energy security. Natural gas demand increases (as oil/gas substitute), advantaging LNG exporters.

BRIGHT OCEAN

SOLUTIONS
Your Partner to General Contracting Excellency

Industry Effects: Automotive & Logistics

- **Auto demand:** Spiking fuel prices cool demand for SUVs/trucks; may boost interest in fuel-efficient and electric vehicles. However, higher financing costs and economic uncertainty could temper auto sales overall.
- **Auto supply chains:** Global auto production (highly JIT) is vulnerable. Key components (chips, electronics) shipped from Asia face delays/extra cost, causing potential factory slowdowns or temporary shutdowns.
- **Commercial transport:** Freight/logistics companies face a squeeze: fuel surcharges rise and many routes longer. Trucking and railfreight costs increase as imports reroute. Shipping surcharges and congestion fees hit bottom lines.
- **Airlines & freight forwarders:** Suffer on two fronts – much higher fuel prices and longer flight paths (no Iran/Gulf). These costs feed into freight charges and ticket prices. Passenger travel may drop if fares rise.
- **Manufacturers' response:** Companies accelerate diversification (sourcing parts locally or from multiple regions) and rebuild strategic reserves of critical parts. Logistics networks become more resilient (multi-modal).

BOIS BRIGHT OCEAN

GC SOLUTIONS
Your Partner to General Contracting Excellency

Industry Effects: Electronics & Pharma

- **Electronics:** Components (chips, PCBs) mostly made in Asia rely on just-in-time delivery. Airfreight bans and port delays mean 2–3× higher costs for urgent shipments . Electronics assembly lines (smartphones, PCs) may face chip shortages.
- **Pharmaceuticals & medical supplies:** Similar to electronics, most APIs and drugs are shipped from India/China. Flight disruptions and longer routes delay critical drugs/PPIs. Shortages of time-sensitive medicines or vaccines become risks.
- **Tech firms:** Inventory levels rise; companies may reorder earlier and in larger batches. Tech sector margins are squeezed by higher transport and input costs.
- **Healthcare sector:** Hospitals may see higher costs for imported equipment and meds. Governments might expedite domestic pharma capability, but short-term reliance on imports causes supply-tightness.
- **R&D & production:** Some high-tech manufacturing (e.g. semiconductors) may relocate to more secure sites, though this is a long-term shift.

Industry Effects: Food & Agriculture

- **Farming input costs:** Fertilizer (N/P/K) and diesel price hikes raise production costs worldwide. Farmers may plant less or use inputs conservatively, potentially reducing yields.
- **Food distribution:** High fuel and freight costs inflate prices of imported food. Developing countries without domestic staples (many in MENA/Africa) are hardest hit, risking food insecurity.
- **Retail prices:** Consumers see sharper grocery price inflation. Staples like bread, rice, cooking oil become more expensive. This can trigger political pressure in vulnerable states.
- **Supply chain:** Food exporters try to deliver via alternate routes; some may prefer regional markets to avoid long shipping legs. Increased buffer stocks in warehouses globally.
- **Government action:** Some nations may impose export restrictions on essential foods (as seen in past crises), which worsens global supply tightness and price volatility

BRIGHT OCEAN

SOLUTIONS
Your Partner to General Contracting Excellency

Regional Impact: Asia

- **Import vulnerability:** Japan, South Korea, India, China heavily depend on Mideast oil/LNG. They rush to fill strategic reserves (China is buying more Russian oil on discount) and scramble for alternate supplies (e.g. Russia, Africa) .

- **Manufacturing costs:** Asia's export industries (electronics, consumer goods) face higher energy and shipping costs, squeezing margins and competitiveness.

- **Economic growth:** Rising import bills and inflation will slow GDP growth in emerging Asia. Fiscal deficits widen if governments subsidize energy/food. Currencies (rupee, rupiah, baht) likely weaken under pressure.

- **Trade patterns:** Asian economies may deepen trade within Asia (e.g. ASEAN corridors) to avoid maritime chokepoints. Belt-and-Road or North–South transport corridors gain urgency.

- **Investor sentiment:** Asian stock markets fall amid global turmoil; safe havens (yen, gold) climb. Equity-risk premiums rise, especially for energy-importing countries.

BOIS BRIGHT OCEAN

GC SOLUTIONS Your Partner to General Contracting Excellency

Regional Impact: Europe

- **Energy mix:** Europe imports little Gulf oil (Russia pipeline gas dominates), but MENA instability keeps gas and LNG prices high. Any uptick in U.S./Russia LNG demand from Asia tightens European supply.
- **Inflation & economy:** The Eurozone inflation rate, already above target, is boosted further by energy and commodity costs, hurting consumption. Growth forecasts are downgraded.
- **Manufacturing:** High energy prices hit energy-intensive sectors (steel, cement, chemicals) in Germany and others. Supply-chain delays (via Suez/Africa) also disrupt auto and machinery exports.
- **Policy response:** The EU accelerates diversification (e.g. more renewables, North African gas deals). Strategic reserves of gas may be filled quickly. Temporary subsidy or price-cap measures likely.
- **Security & strategy:** Europe calls for strengthened naval patrols in Red Sea/Gulf (NATO coordination). Regional tensions push defense firms' stocks up (anti-missile, surveillance).

Regional Impact: North America

- **United States:** Largely self-sufficient in oil/gas; benefits from high oil prices (oil states: Texas, North Dakota). Gasoline spikes feed into CPI modestly, but mitigated by SPR releases and strong domestic production.

- **Energy exports:** US LNG and oil exports become more valuable; pipeline and export terminal firms gain. The dollar may strengthen further on commodity flows.

- **Inflation & policy:** US inflation edges up; Fed remains cautious. If inflation jumps again, rate cuts slow or reverse, potentially challenging stocks. U.S. markets saw a risk-off leg (S&P -1.1%) on Iran news .

- **Canada/Mexico:** Canada (oil exporter) benefits from higher oil revenues (loonie strengthens). Mexico (net oil importer) suffers higher import costs, worsening inflation and fiscal balance.

- **Defense posture:** US Navy intensifies patrols in Hormuz; intelligence sharing increases. Talks of regional coalition (e.g. Arab navies) emerge to keep shipping lanes open.

BOIS BRIGHT OCEAN

GC SOLUTIONS Your Partner to General Contracting Excellency

Regional Impact: MENA (Middle East & North Africa)

- **Gulf exporters:** Saudi Arabia and UAE see oil windfalls; they push pipeline outputs to max . GCC states build reserves and may fund allies with cheap oil.
- **Iran & Israel:** Direct conflict zones: Iran’s economy is crippled by sanctions/war; Israel shifts economy to defense footing. Middle Eastern tourism and investment plunge due to war risk.
- **Non-GCC states:** Countries like Egypt, Jordan, Pakistan (fuel importers) face sharp energy bill rises. They may seek IMF support or bilateral aid to manage subsidies.
- **Red Sea risk:** Yemen’s Houthis (aligned with Iran) threaten Suez transit (similar to 2024 attacks). Disruptions there compound Horn of Africa instability, affecting Europe-Asia trade.
- **Gulf strategy:** GCC states may fast-track pipelines, rail links (Saudi-Qatar, GCC Rail) to de-risk Hormuz. Increased military spending to secure shipping lanes (e.g. anti-missile systems).

BOIS
BRIGHT OCEAN

GC
SOLUTIONS
Your Partner to General Contracting Excellency

Financial Markets

- **Commodity swings:** Oil, gas, and gold prices spike (gold for safe-haven demand). Energy stocks (majors, pipeline companies) rally strongly. Shipping & freight stocks climb on higher rates .
- **Stock indices:** Global equities rout on war risk. (E.g. S&P500 fell ~1.1%, Dow ~1.7% on strike news .) Sectors hit: airlines, tourism, consumer discretionary. Defense and tech (remote services) outperform.
- **Currencies:** Safe-haven currencies (USD, JPY, CHF) appreciate. Commodity-linked currencies diverge: CAD/NOK rise with oil; INR, IDR, ZAR fall on capital outflows.
- **Credit markets:** Risk premiums widen. Sovereign spreads for emerging, oil-importing countries widen (debt financed in USD becomes pricier). Companies with high input costs see credit downgrades.
- **Investor sentiment:** Volatility (VIX) spikes, equity inflows retreat. Funds reallocate to cash/bonds. Bankers emphasize scenario-planning; many expect central banks to remain tighter longer.

Policy & Corporate Mitigation Strategies

- **Strategic reserves:** Governments (IEA, bilateral allies) tap oil stockpiles and may coordinate releases to stabilize markets. Some nations ease fuel taxes or subsidize energy to contain inflation.
- **Supply diversification:** Accelerate alternative energy (renewables, nuclear, LNG). Source oil/gas/commodities from multiple regions (US, Africa, South America, Russia where geopolitical).
- **Infrastructure investment:** Fast-track new pipelines (East African oil pipeline, Trans-Caspian gas), rail links (China-Kyrgyzstan), and expand LNG import terminals/demand. Encourage filling pipelines (e.g. Iran-Iraq pipeline, though politically sensitive).
- **Insurance & security:** Governments underwrite war-risk insurance or war bonds. Shipping companies adopt higher war-premiums. Naval coalitions (US/NATO/Arab navies) escort convoys through hotspots.
- **Inventory and contracting:** Businesses shift “just-in-case”: increase safety stock, secure long-term contracts (with price-lock clauses), use hedging on fuel. Logistics planning stress-tests all routes.
- **Policy coordination:** Multilateral diplomacy to ease tensions. Energy-exporting countries (e.g. OPEC+) consider balancing markets by moderating output cuts. Stock markets seek signals that conflict will remain limited.

BRIGHT OCEAN

SOLUTIONS
Your Partner to General Contracting Excellency