The Iran conflict: global supply implications beyond oil

Discussion document

March 2026

Roland Berger

Management Summary

The closure of the Strait of Hormuz is tightening global supply across energy and multiple industrial inputs

- ~30% of global seaborne oil trade and ~20% of LNG trade affected, causing an immediate tightening of global energy balances with limited short-term substitution capacity
- Gulf exports also dominate global trade in multiple other commodities (e.g., sulfur ~45%, urea ~45%, polyethylene ~25%, celestite ~50%, helium ~35%, aluminum ~15%)

Limited bypass capacity and absence of substitutes create acute supply constraints across value chains

- Pipeline bypass capacity limited (~15–20% of oil volumes), insufficient to offset maritime disruption
- No strategic reserves or scalable alternatives for most chemicals and critical materials
- Curtailed production and damage to energy infrastructures will have lasting supply effects beyond the conflict itself

Supply disruptions impact global value chains, extending beyond directly exposed regions and sectors

- Asia most directly exposed to primary imports, but downstream manufacturing drives global transmission
- Shortages of petrochemicals and critical materials (e.g., helium, celestite) disrupt plastics, packaging and electronics, cascading through downstream sectors

Companies must act to protect margins, secure supply and prepare for prolonged disruption

- Identify supply chain vulnerabilities and secure critical inputs, including safety stock build-up
- Activate contractual levers and implement cost pass-through mechanisms where possible
- Diversify sourcing and logistics, including alternative routes and nearshoring options

The Strait of Hormuz is a vital chokepoint for Middle East oil & gas, petrochemical and critical material exports

Gulf country commodity exports through the Strait of Hormuz, by country

20.3 m barrels of oil and petroleum products transiting the Strait of Hormuz daily

30% of global seaborne trade

80% going to Asia

	Crude oil	Petroleum products	LNG	Urea	Sulfur	Petro-chemicals[1)]	Aluminum	Helium	Celestite
Saudi Arabia	✓	✓		✓	✓	✓			
Qatar	✓	✓	✓	✓	✓	✓	✓	✓	
UAE	✓	✓	✓	✓	✓	✓	✓		
Iran	✓	✓		✓	✓	✓			✓
Iraq	✓	✓			✓				
Kuwait	✓	✓			✓				
Bahrain		✓				✓	✓		

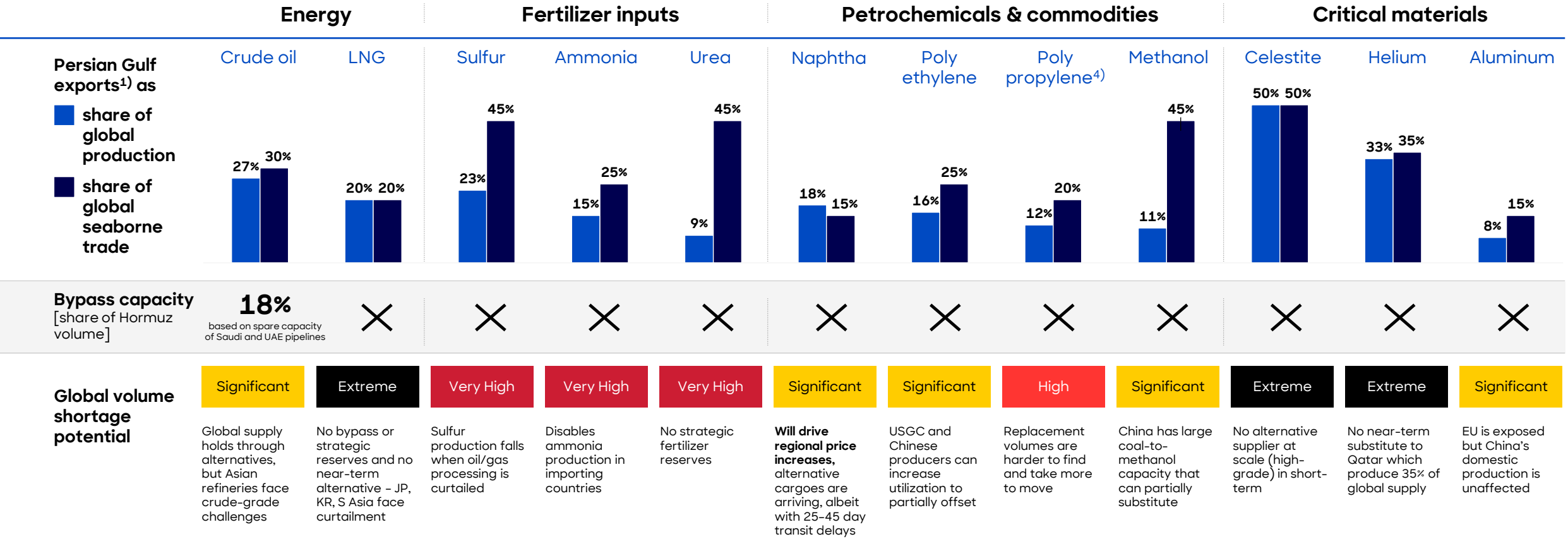
✓ Major exporter (>1% of global production)[2)]

1) Polyethylene, polypropylene, methanol, and naphtha; 2) Based on 2024 export and production data

Source: World Bank, UN Comtrade, EIA

Several major commodities transiting Hormuz have no bypass, no reserves and no near-term substitution potential

Implications of Strait of Hormuz closure on commodities and critical materials

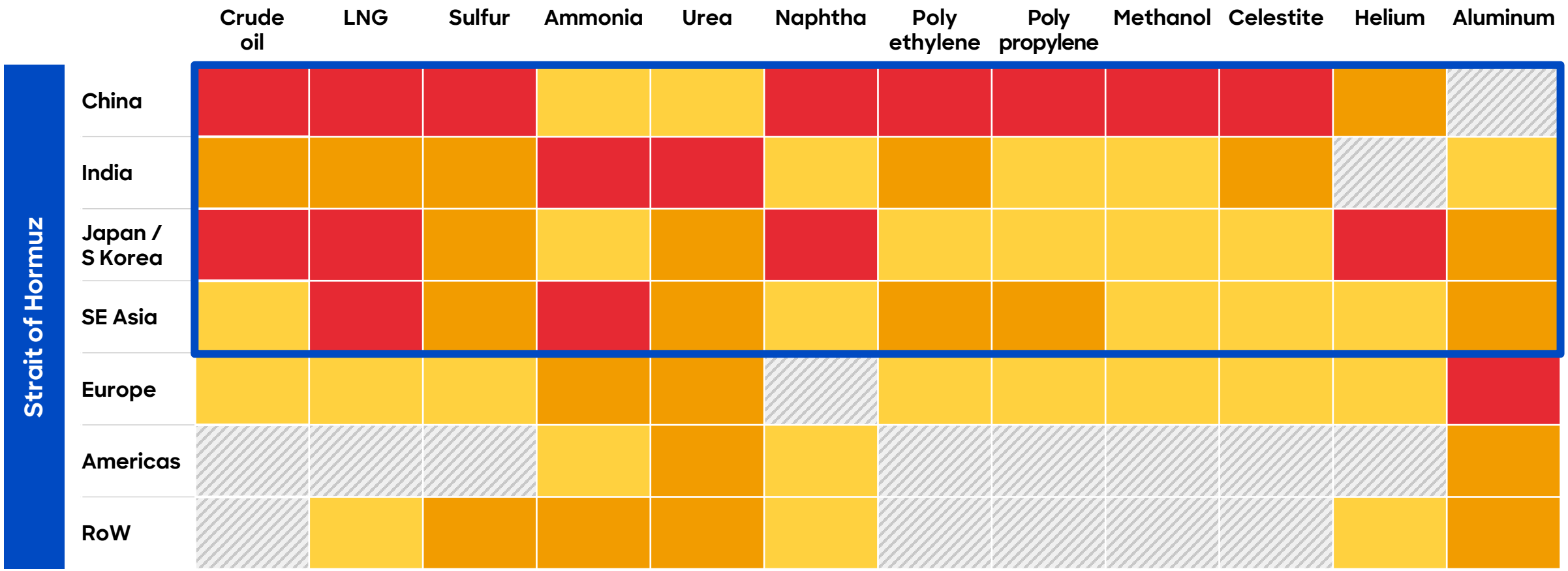


1) Including export from Iraq, Iran, Saudi Arabia, Qatar, the UAE, Kuwait, and Bahrain, based on 2024 production and export data; 2) Total production, not exports, as a share of global production; 3) Assumed that roughly 85% of the Middle East's polyethylene output depends on the Strait of Hormuz for export; 4) The potential impact of the global volume shortage on polypropylene (PP) is greater than that on oil, despite PP representing a smaller share of global production, primarily because manufacturers in Northeast Asia and China depend on Middle Eastern naphtha as a key feedstock for PP production

Source: World Bank, EIA, IEA, NDSU Agricultural Trade Monitor, BloombergNEF, desk research, Roland Berger

The exports out of Hormuz are primarily impacting Asian countries, with ripple effects on global supply chains

Destination of commodities and critical materials exported from the Strait of Hormuz



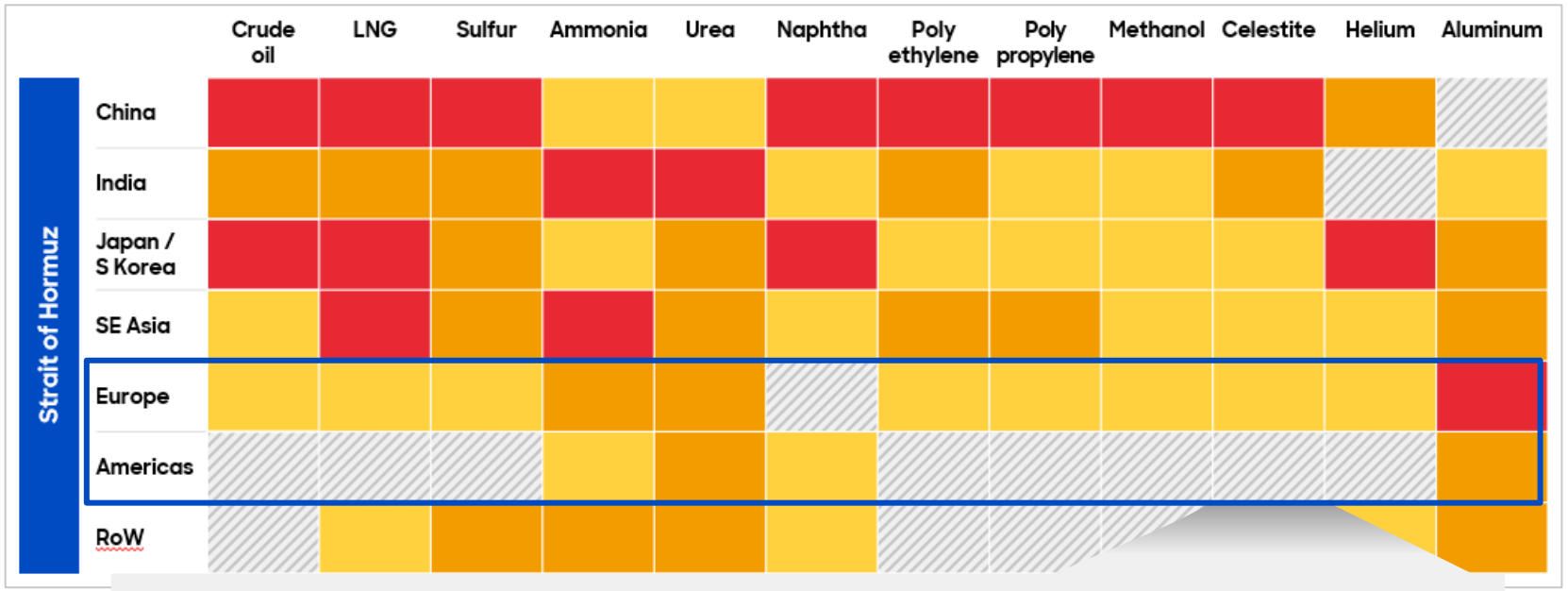
Distribution of Hormuz exports by destination: High (>20%) Moderate (10-20%) Low (5-10%) Minimal / none (<5%) Most impacted regions

Note: For individual countries regions, the impact may be high - For example, only a minor percentage of Middle Eastern exports of Aluminum goes to India, but accounts for >50% of India's aluminum imports

Source: EIA, LME, Moody's, Oxford Economics, NDSU Agricultural Trade Monitor, desk research

However, there are cascading impacts to Europe and the Americas as a result of globally connected, multi-step value chains

Indirect regional exposure from raw material shortages



Example: Celestite

Celestite	Strontium carbonate	Ferrite magnets	Electronics	Assembled Vehicle
Iran	China	China	Korea	USA

Impact beyond Strait exports

- Europe and Americas have limited direct raw material imports through the Strait of Hormuz
- However, they are exposed to material shortages due to globally connected, multi-step value chains
- Exports through the Strait can be imported into China, processed and made into a component, shipped to the Americas or Europe, and then integrated into a finished product
- Bottom line: shortages in Asia can lead to component shortages elsewhere

as of March 19, 2026

Prices have increased significantly across commodities, with operating costs and supply chain impacts affecting all sectors of the economy

Overview of price increases and sector implications across key commodities

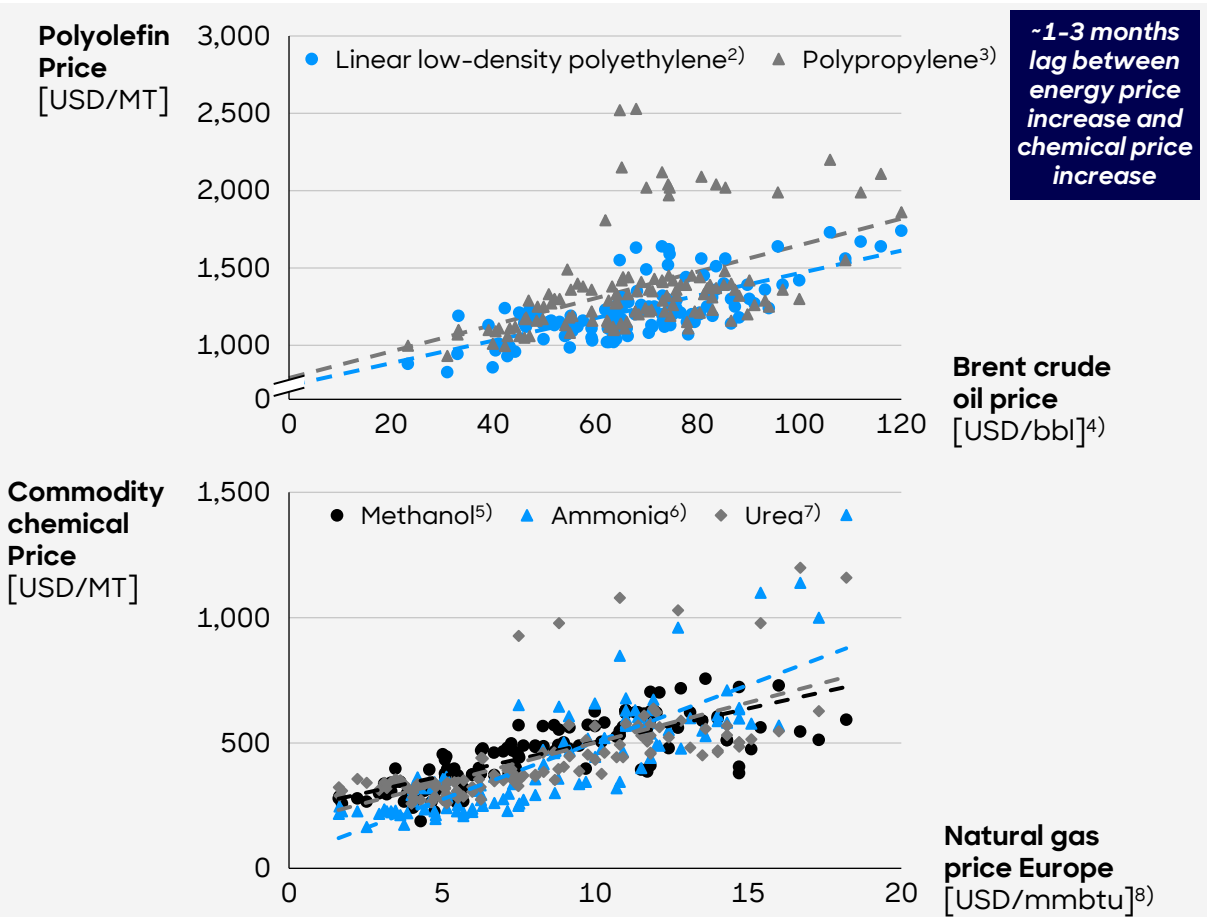
	Energy		Fertilizer inputs			Petrochemicals & commodities				Critical materials		
	Crude oil	LNG	Sulfur	Ammonia	Urea	Naphtha	Poly ethylene	Poly propylene	Methanol	Celestite	Helium	Aluminum
Price increase since Feb 28	**+47%**	**+68%**	**+23%**	**+8%**	**+38%**	**+90%**	**+16%**	**+24%**	**+46%**	**+15%**	**+50% - 100%**	**+10%**
	Global price impact	Regional divergence, flat HH prices	Global price impact	Western Europe impact	Global price impact	Asian crackers most affected. Eur. naph. also rose sharply	Regional divergence., ethane vs. naph. exposure	Moderate jump vs. naph. due to weak demand + overcapacity	Impact in china	Regional and purity-grade differences expected	Global price impact	Global price impact incl. premium surge
Direct use	• Transportation fuels • Asphalt & lubricants • Petrochemical feedstocks	• Power generation • Industrial, residential heating	• **Fertilizer** (70-85% of global production use) • **Industrial chemicals** & **processing**: • Rubber vulcanization • Metals processing	• Emission control • Explosives • Refrigeration	• Emission control • Resins • Animal feed	• **Chemical feedstock** for polyethylene and poly-propylene among other • Fuel & fuel blending	• **Plastics used across sectors:** – Packaging – Piping – Medical devices – Textiles – Automotive components		• **Chemical feedstock** for polyethylene and poly-propylene among other • Pesticides	Refined to **strontium**: • Electronics • Magnets • Ceramics	• Cryogenics • Welding • Electronics • Lifting gas	• Structural components • Building materials • Packaging • Electrical wires
Industries most impacted[1)]	• **1st: High direct energy/ fuel usage industries** (utilities, materials, transportation) • **2nd: Downstream from impacted sectors** (automotive, machinery, durable goods)		• **1st: Food & beverage** • **2nd: Industry relying on these as industrial inputs** (chemicals, mining, transportation, utilities, automotive)			• **1st: Chemicals, plastic components, packaging** • **2nd: Downstream from directly impacted sectors** (food and beverages, electronics, construction, automotive, durable goods, machinery, etc.)				• **1st: Direct users** – Electronics – Automotive – Machinery – Aerospace – Healthcare – Construction – Food and beverage		

1) Includes industries with direct use or material input cost exposure;2) Petrochemical and commodity prices may not fully reflect feedstock cost hikes or supply shortages, with potential for further increases.

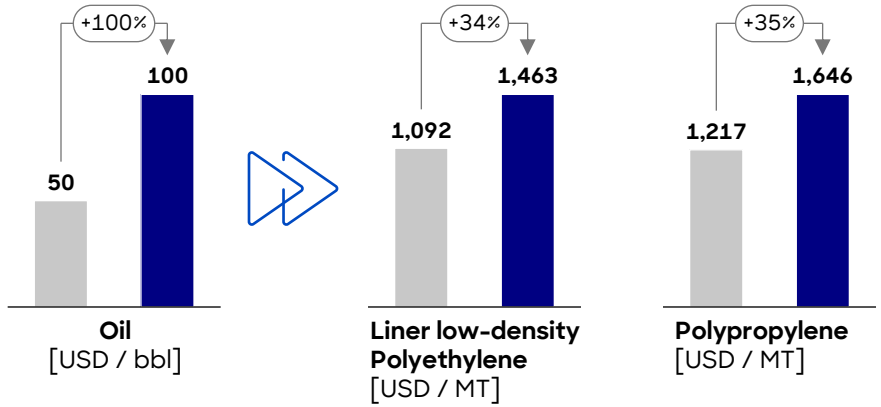
Source: World Bank, EIA, IEA, NDSU Agricultural Trade Monitor, desk research, Roland Berger

A sustained increase in energy costs takes ~3 months to impact chemical prices; thus, there may be further cost impacts to come

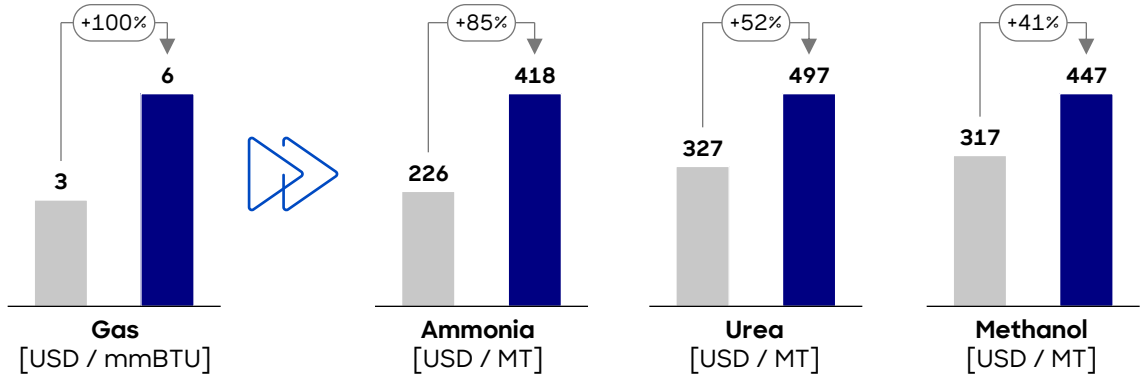
Chemical and energy price correlation[1)]



If oil prices double, LLD polyethylene & polypropylene prices may increase ~35%+



If gas prices doubles, ammonia price may increase 85%+ (Urea / Methanol ~40-50%)



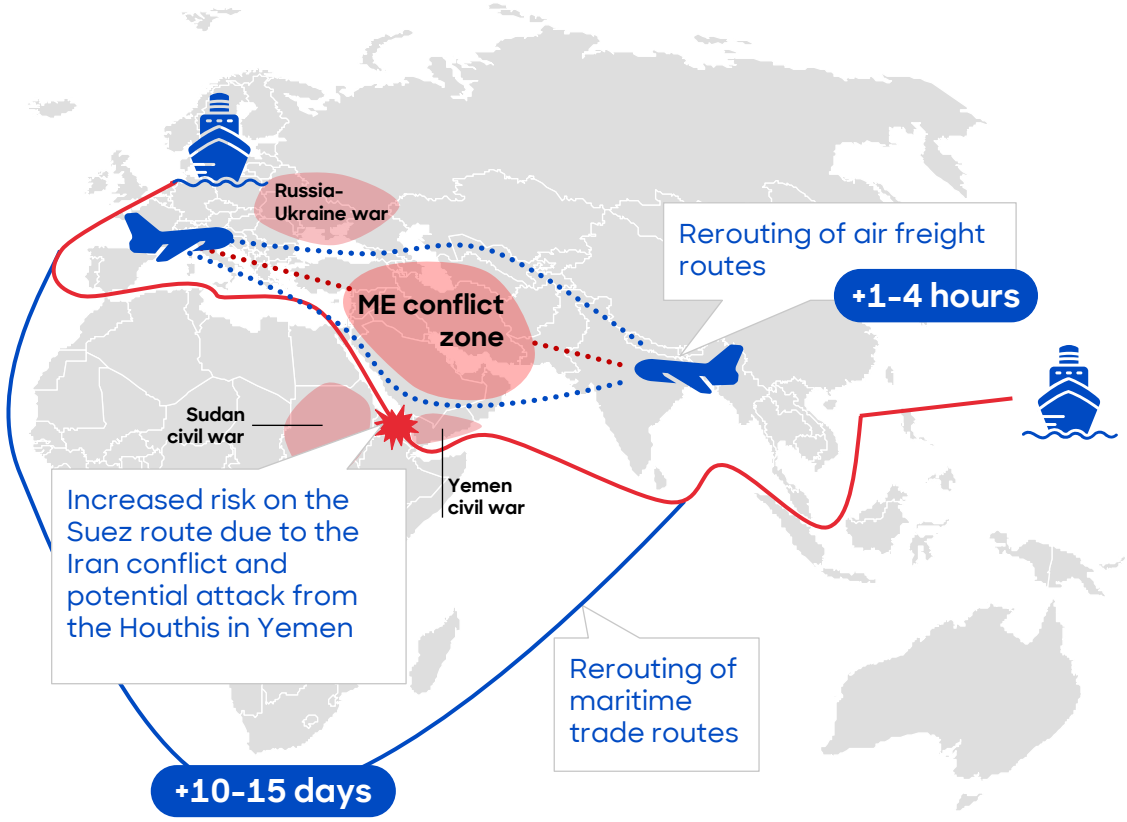
1) Excludes outliers in 2022 for Natural Gas; 2) Butene film grade, domestic contract price, ddp, Northwest Europe;3) Injection molding grade, domestic spot price, ddp, Northwest Europe; 4) Export contract price, fob, UK; 5) Export contract price, fob, Netherlands; 6) Import spot price, cfr, Northwest Europe; 7) Domestic spot price, ddp, UK; 8) Wholesale spot price, trading hub Europe

Source: Intratec, Roland Berger

Beyond commodity constraints, the conflict is disrupting global logistics, driving longer transit times, higher freight costs and system-wide capacity constraints

Logistics disruption

Asia-to-West supply routes



Maritime impact

Route disruption: Carriers are routing ships around Africa, avoiding the Suez corridor

Transit delays: +10-20 days

Capacity constraints: Container shortages in Asian hubs; cascading port congestion in Europe and later North America

Freight rates: Asia-Europe +30-70% immediate impact on container freight rates; potential Trans-Pacific spillover with 60-90 day lag

Air freight impact

Route disruption: ME airspace closures affect key Asia-Europe cargo routes

Transit delays: Detours south via Saudi Arabia increase flight times +1-4 hours

Capacity compression: Grounding of Gulf carriers & rerouting north into constrained Caucasus corridor reduces available payload

Freight rates: Asia-Europe +20-50%, compounded by rising fuel costs as oil prices rise

System-wide logistics impacts

- Fuel & insurance surcharges spike with longer, higher-risk routes
- Cargo shifts from ocean to air, tightening airfreight capacity
- Rerouting creates congestion across global logistics networks
- Firms increase safety stock as transit times lengthen

Source: Desk Research, Roland Berger

From supply chain delays to demand decline: with each passing day, the consequences are becoming more widespread

Development of implications after the incident

Immediate implications
Day 1

Early implications
Day 5+

Later implications
Day 30+

1 SC disruption and rising logistics cost

- **Delays in supply** diverted ship routes, cancelled flights, port congestion, etc.
- **Increasing freight costs** Longer routes, limited capacities, etc.

2 Increasing factor costs due to inflation

- **Oil price driven materials** plastics, petrochemical products, etc.
- **Indirect cost increases** raw materials like metals
- **Supplier claims** factor cost increases

3 Decline in demand

- **Customers adjusting** their behavior to higher **price levels**
- **Decline** in **sales** due to falling customer demand

Increasing factor costs due to oil price inflation

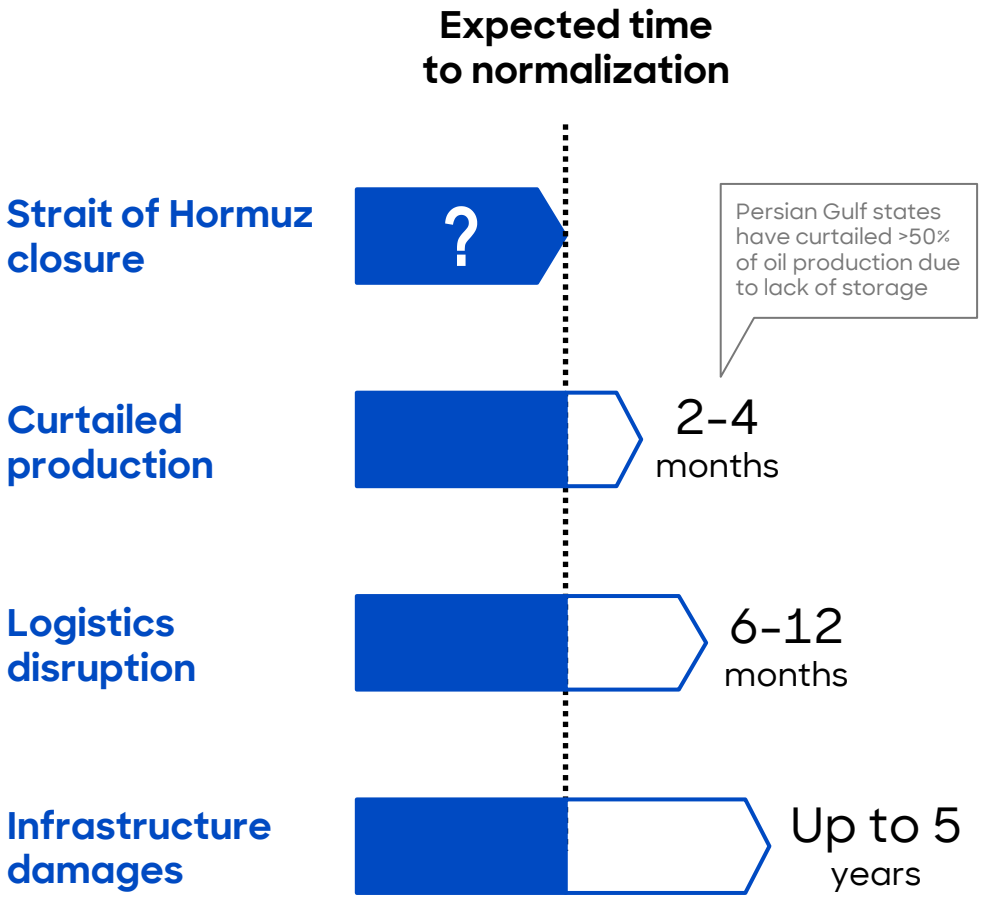
SC disruption and rising logistics cost

SC disruption and rising logistics cost

Duration of incident

Despite uncertainty around conflict duration, the combined effects on the global economy are expected to endure over the coming months

Lasting consequences of the conflict



Damage to critical infrastructures

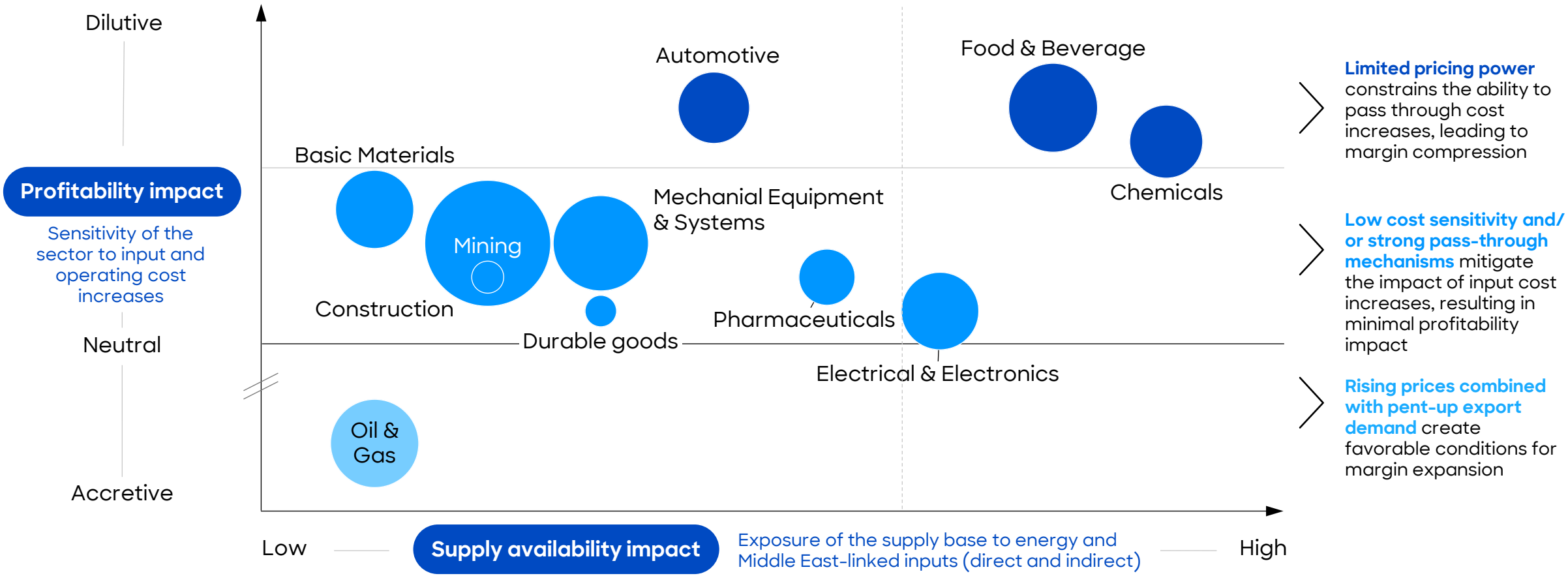
Non-exhaustive

Sector	Asset	Capacity impacted	Repair timeline
Gas fields and export infra.	**Qatar** Ras Laffan LNG complex	17% of Qatar LNG ~5% of global	Years
	Iran / Qatar South Pars gas field	12% of Iran gas	Months to years
	UAE Habshan gas processing & Shah gas field	No structural capacity loss	Weeks to months
Oil fields and refineries	**Saudi Arabia** Yanbu (Red Sea) Samref refinery	15% of Saudi refining capacity **Limits Hormuz bypass capacity**	Weeks to months
	UAE Bab oil field, Ruwais refinery	No structural capacity loss	Days to weeks
	Kuwait Mina Al-Ahmadi & Mina Abdullah refineries	No structural capacity loss, regional disruption	Days to weeks
	Iran Abadan refinery	Undisclosed	Undisclosed
	Iraq Majnoon oil field, Lanaz refinery	Undisclosed	Days to weeks
	Bahrain Bapco refinery	Undisclosed	Undisclosed

Source: S&P Global, desk research, Roland Berger

Combined supply disruption and cost pressures drive divergent exposure across US sectors, requiring tailored responses to industry-specific risk profiles

Middle East conflict implications on select US economic sectors



Source: Roland Berger

Companies can act now to mitigate risks associated with supply and logistics challenges while preparing for prolonged disruption

Mitigation action plan

Act now

- Identify vulnerabilities in your supply chain and prepare scenario-based response plans
- Secure critical inputs and build safety stocks materials at-risk
- Pre-book container capacity and evaluate emergency air-freight for critical flows
- Trigger contractual protections and evaluate cost pass-through mechanisms

Investigate

- Qualify alternative and regional suppliers for critical inputs
- Assess financial health and continuity risks across suppliers
- Evaluate supply chain reconfiguration options (e.g., build in redundancy)
- Determine Just-in-Time buffer minimum given geopolitical logistics risks

Monitor

- Track energy and key commodity price evolution against escalation thresholds
- Track supplier capacity constraints on critical inputs and lead times
- Monitor logistics conditions, freight rates and insurance availability
- Monitor signs of financial stress and track cash positions across key suppliers

Roland Berger's proven tools, methods, and market intelligence empower you to act fast, adapt sourcing strategies, and build lasting resilience.

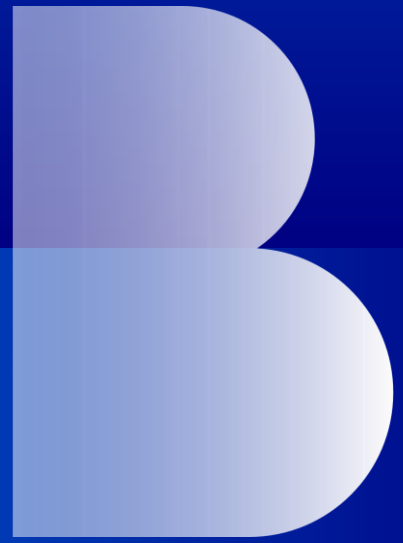
CostIQ
AI-powered raw material management

Smart Stock Solutions
AI-powered inventory management

SC Risk Management
Proactive mitigation of supply chain risks

CBD simulation
Understand Hormuz crisis driven supplier claims from cost breakdown

Claim Defense Preparation
Get prepared to defend supplier claims



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