




The Impact of the Strait of Hormuz Blockade on Taiwan's Export Industries: Heterogeneity in Cost Pass-Through and Supply Risks

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In early 2026, following military action by the United States and Israel against Iran, the Strait of Hormuz was temporarily blockaded, generating cascading disruptions across global energy, shipping, and financial markets. The significance of the shock lay not only in the strategic role of the strait, through which roughly 25–30 percent of seaborne oil and around 20 percent of liquefied natural gas pass, but also in the speed with which the disruption spread beyond energy markets. By March 2026, vessel traffic through the Strait of Hormuz had fallen to near-standstill levels, while international oil prices had risen by more than 50 percent from late-2025 levels and briefly exceeded USD 100 per barrel. The episode therefore represented more than another round of oil-price volatility. It illustrated how geopolitical shocks may be transmitted simultaneously through energy costs, transport delays, supply-chain uncertainty, and financial-market volatility, while once again exposing the structural risks associated with Taiwan's heavy dependence on imported energy.

This article argues that Taiwan's energy vulnerability is particularly acute even among major East Asian economies. Compared with Japan and South Korea, Taiwan is characterized by a higher reliance on natural gas in its energy mix, a substantial concentration of LNG imports from Qatar, and relatively thin onshore storage buffers. These conditions leave Taiwan more exposed when disruptions occur along the Strait of Hormuz. The problem is not simply that imported fuel becomes more expensive. Rather, Taiwan's energy structure narrows the margin for short-run adjustment and increases the likelihood that external shocks will be transmitted to manufacturing costs, transport arrangements, electricity-system pressures, and key industrial inputs. In this sense, the Hormuz crisis is not merely an external energy event, but a stress test of Taiwan's energy structure and export-oriented production model.

The article's central argument is that the same energy shock does not affect Taiwan's export industries uniformly. Its impact depends on the interaction of three conditions: energy intensity, market bargaining power, and the availability or substitutability of critical inputs. Traditional manufacturing sectors, including petrochemicals, steel, textiles, and related basic-materials industries, tend to face higher energy and raw-material cost shares, more homogeneous products, and more intense international price competition. As of 2020, the median energy-expenditure share was approximately 5.0 percent in textiles, 2.6 percent in chemicals and plastics, and 2.0



percent in steel, with substantial dispersion across firms within each sector. Under weak external demand and intense global competition, these industries often have limited scope to pass higher costs fully through to export prices. Energy, transport, and raw-material shocks are therefore more likely to appear as margin compression, liquidity pressure, and declining price competitiveness.

High-technology industries face a different type of exposure. Semiconductors and advanced electronic components generally possess stronger pricing power because of higher technological barriers, concentrated supply structures, and customer switching costs. For these sectors, however, the more consequential vulnerability may lie less in direct energy-cost increases than in the possible disruption of critical inputs. High-purity chemicals, industrial helium, sulfur-derived materials, and other specialized inputs are essential to production continuity, process stability, yield, and delivery reliability. Where upstream supply is concentrated in the Middle East or closely linked to the natural-gas production chain, a geopolitical energy shock may shift from a cost shock into a production-continuity shock. The relevant question is therefore not only whether firms can absorb higher input prices, but whether the necessary inputs can be secured within the required timeframe.

This heterogeneity points to the inherent limits of across-the-board energy subsidies and price-stabilization measures. Such tools may help smooth short-term cost fluctuations, but they are poorly suited to the distinct vulnerabilities faced by different sectors. They may provide insufficient support to firms with weak cost pass-through capacity, while also extending benefits to firms that are better positioned to adjust. More importantly, price-oriented tools alone cannot address risks related to material availability, backup sourcing, inventory monitoring, and production continuity. A more effective policy approach should therefore move from blanket relief toward differentiated industrial support. In the short run, traditional manufacturers may require targeted liquidity assistance, credit guarantees, or temporary financing support tied to energy-cost exposure, export dependence, and firm size. For high-technology sectors, the priority should be critical-material mapping, inventory monitoring, alternative-source coordination, and contingency planning for specialized gases and chemicals.

In the medium term, Taiwan should strengthen LNG dispatch flexibility and critical-material preparedness through bilateral cooperation, public-private coordination, and inter-firm contingency mechanisms. In the longer term, the Hormuz crisis also points to the need for a more resilient energy mix—one that balances decarbonization, power-system stability, and industrial security. The policy implication is that Taiwan does not merely need stronger price-stabilization instruments. It needs a risk-governance framework built around industrial heterogeneity. Only by identifying

which sectors lack cost pass-through capacity, which inputs are difficult to substitute, and which supply-chain nodes are most vulnerable can Taiwan respond to the next external shock with greater precision, rather than merely absorbing its consequences passively.