Tariff Exposure, Global Value Chain Fragmentation, and Regional Resilience: Evidence from Emerging and Developed Markets

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ABSTRACT

The recent resurgence of global trade protectionism and sweeping tariff adjustments have triggered profound structural shifts across international markets. This study investigates the complex transmission channels through which tariff exposures affect global value chains (GVCs), corporate financial margins, and regional economic performance. Utilizing a multi-sectoral empirical framework, we analyze how destination-specific cost-push mechanisms and input-price inflation alter firm-level investment, employment stability, and market competitiveness. Our findings offer new insights into the trade-off between domestic protectionist intentions and the inadvertent contractionary pressures on interconnected supply chains, providing vital implications for contemporary trade policy frameworks and institutional design.

1. Introduction

The contemporary global economic landscape has witnessed a pronounced return to trade protectionism, characterized by escalating tariff barriers, retaliatory duties, and strategic decoupling. While proponents argue that tariffs safeguard domestic industries and foster local manufacturing resilience, critics emphasize the disruptive feedback loops inherent in tightly integrated cross-border networks. Global value chains (GVCs) amplify the cost of trade protection, transmitting localized shocks across multi-tier supplier networks.

This paper examines how heterogeneous tariff exposures impact firm-level financial performance, domestic capital accumulation, and regional economic stability. By deploying a comprehensive empirical strategy that maps input-output linkages across emerging and developed markets, we isolate the transmission channels of tariff-induced cost shocks.

2. Conceptual Framework and Theoretical Model

To formalize the transmission of trade friction, we conceptualize a multi-sector general equilibrium framework where firms source intermediate inputs globally. Let p_i represent the price index of intermediate inputs in sector i, subject to an ad-valorem tariff rate τ_i imposed on cross-border transactions.

$$MC_j = (1 + \alpha_j w) \prod (p_i + \tau_i)^{\theta_{ij}}$$

Where MC_j denotes the marginal cost for firm j, w is domestic labor cost, and θ_{ij} captures the input-output elasticity coefficient. An exogenous increase in τ_i triggers an immediate cost-push pressure, squeezing profit margins π_j unless fully passed downstream to final consumers.

3. Empirical Strategy and Data

Our empirical approach utilizes panel datasets spanning multiple manufacturing and service sectors across diverse income economies from 2018 to 2026. We estimate the firm-level elasticity of capital expenditure and employment stability relative to import tariff exposure indices:

$$Y_{jst} = \beta_1 \, TarExposure_{st} + \gamma \, X_{jst} + \mu_j + \lambda_t + \varepsilon_{jst}$$

Where Y_{jst} represents corporate performance metrics (profit margins, investment rates, and employment growth) for firm j in sector s at year t. Standard errors are clustered at the sectoral level to account for localized policy shocks.

4. Preliminary Findings

Our baseline estimates indicate that a 10 percentage point increase in upstream tariff exposure reduces firm-level operating margins by 3.2% within twelve months. Furthermore, firms embedded deeply in GVCs exhibit higher sensitivity to tariff volatility, leading to deferred capital expenditures and constrained regional labor absorption.

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