

Unravelling Cross-Commodity Price Transmission Dynamics between Coastal and Freshwater Fish Species in Bangladesh: A Structural VAR Analysis

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Abstract : This study investigates the existence of price transmission asymmetries and imperfections among the coastal and freshwater fish species in Bangladesh. Using a Structural Vector Autoregression (SVAR) model, we explore how price changes in one fish species impact the prices of others in the retail market. Monthly data from the Department of Agricultural Marketing (DAM) covering the period from 2012 to 2023 was analyzed. Price series were detrended using the Hodrick-Prescott filter, and unit root tests confirmed stationarity after detrending. The findings indicate that there are significant interdependencies and asymmetries in price transmission, particularly the strong influence of Hilsha on the broader fish market. Hilsha's price shocks generate immediate responses across other species, reflecting its cultural and economic importance. Silver Pomfret demonstrates some independence but is still affected by broader market fluctuations, particularly those involving Hilsha. Meanwhile, Rohu and Catla exhibit high interdependence, where price changes in one species closely impact the other, underscoring their substitutable nature in consumer preferences. These findings emphasize the need for joint interventions and market monitoring to stabilize prices effectively. Stakeholders are encouraged to monitor Hilsha's market, consider coordinated interventions for Rohu and Catla, and establish data-sharing partnerships to enhance market stability. Additionally, promoting consumer awareness of price trends and sustainable practices can further support market resilience and long-term sustainability in the fisheries sector.

Keywords : price transmission, cross commodity, fish, Bangladesh, CCF, SVAR, IRF

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