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**The Asymmetric Pass-Through of Global Supply Chain Pressures and Energy Prices to Domestic Core
Inflation in Indonesia**
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# ABSTRACT

This study examines the asymmetric pass-through of global supply chain pressures and international energy prices to domestic core inflation in Indonesia. As global macroeconomic volatility changes from demand-pull factors to external cost-push pressures, traditional linear models often miss the "rockets and feathers" effect of downward nominal price rigidity. This study uses a Non-linear Autoregressive Distributed Lag (NARDL) framework on monthly time-series data from January 2010 to March 2026 and decomposes the Global Supply Chain Pressure Index (GSCPI) and Brent Crude spot prices into positive and negative partial sums. The empirical results show that the transmission of global supply chain pressures is symmetric in the long run, but it is highly asymmetric in the short run. Specifically, positive logistical shocks, which indicate tightening supply chains, require four months to be fully absorbed by the domestic economy, whereas negative shocks, which indicate easing supply chains, show immediate transmission without sustained disinflationary relief. This implies a significant short-term downward price stickiness within the domestic market. By contrast, both positive and negative shocks to global energy prices are found to be statistically insignificant in the long run. This finding validates the efficacy of Indonesia's domestic "fiscal shield", primarily government fuel subsidies, in insulating the core consumer basket from international oil market volatility.

**Keywords: Asymmetric Price Transmission, Core Inflation, Global Supply Chain Pressure Index (GSCPI), NARDL, Cost-Push Inflation, Fiscal Shield.**

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# INTISARI

*Penelitian ini menginvestigasi transmisi asimetris (*pass-through*) dari tekanan rantai pasok global dan harga energi internasional terhadap inflasi inti domestik di Indonesia. Seiring dengan perubahan volatilitas makroekonomi global dari faktor tarikan permintaan (*demand-pull*) ke tekanan dorongan biaya (*cost-push*) eksternal, model linier tradisional sering kali gagal menangkap efek "roket dan bulu" (*rockets and feathers*) terkait dengan kekakuan harga nominal ke bawah. Penelitian ini menggunakan kerangka kerja* Non-linear Autoregressive Distributed Lag *(NARDL) pada data deret waktu bulanan dari Januari 2010 hingga Maret 2026, dan mendekomposisi* Global Supply Chain Pressure Index *(GSCPI) dan harga* spot Brent Crude *menjadi jumlah parsial positif dan negatif. Hasil empiris menunjukkan bahwa transmisi tekanan rantai pasok global bersifat simetris dalam jangka panjang namun sangat asimetris dalam jangka pendek. Secara spesifik, guncangan logistik positif (pengetatan rantai pasok) membutuhkan waktu empat bulan untuk dapat diserap sepenuhnya oleh perekonomian domestik, sedangkan guncangan negatif (pelonggaran rantai pasok) menunjukkan transmisi langsung tanpa adanya kelegaan disinflasi yang berkelanjutan. Hal ini mengimplikasikan adanya kekakuan harga ke bawah jangka pendek yang signifikan. Sebaliknya, guncangan positif dan negatif pada harga energi global ditemukan tidak signifikan secara statistik dalam jangka Panjang. Temuan ini memvalidasi kemanjuran "perisai fiskal" domestik Indonesia, terutama subsidi BBM pemerintah, dalam melindungi keranjang konsumen inti dari volatilitas pasar minyak internasional.*

***Kata Kunci: Transmisi Harga Asimetris, Inflasi Inti,* Global Supply Chain Pressure Index *(GSCPI), NARDL, Inflasi Dorongan Biaya, Perisai Fiskal.***