

# Model-free and Model-based connectedness in highly, medium and lowly correlated financial returns: analyses of OECD inflations<sup>1</sup>

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## Abstract

This paper deals with the analysis of inflation in the financial returns by using fractional integration and model-free connectedness methods. Using data from 22 countries from April 1958 to November 2023, we group the countries into highly, medium and lowly correlated returns. The results indicate that 10 countries, among members of G12 are listed among high-medium correlated inflation returns. G7 countries are listed with high-medium inflation returns, of which France, Germany, Italy, and the USA are net shock transmitters, while Canada, Japan and the UK are net shock receivers. Total connectedness indices are positively related to the correlations and the connectedness are found to increase astronomically towards the late 2020 due to economic and financial market integrations. Global financial crisis such as the 2007-2009, and the COVID-19 pandemic have further reset integration of economic variables.

**Keywords:** Persistence; fractional integration; model-free connectedness, Price inflation, G12 countries

**JEL Classification:** C22; E31, C5, C6

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