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### A Tale of Two Economies: Globalization, Inflation, and HDI in Canada and the UK

Dr. Muhammad Maqbool Ur-Rahman<sup>1</sup> Dr. Mustafa Hyder<sup>2</sup>

<sup>1</sup> PhD in Public Administration, University of Karachi, Sindh, Pakistan.

<sup>2</sup> Associate Professor, Department of Public Administration, University of Karachi, Sindh, Pakistan.

**Corresponding Author:** Dr. Muhammad Maqbool Ur-Rahman, **Email:** [mmaqbool145@gmail.com](mailto:mmaqbool145@gmail.com)

#### Article Information

#### ABSTRACT

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The research evaluates the interplay among globalization, inflation, and the Human Development Index (HDI) in developed economies, particularly Canada and the UK. Economic data at the national level from 1990 to 2023 were analyzed using the KOF Globalization Index, HDI, and the Consumer Price Index. Stationarity testing and ARDL modeling were used to analyze short- and long-term relationships. The study found globalization's positive and insignificant effect on HDI and inflation. In the UK, the effects of globalization on inflation are positive but remain insignificant in both the short and long run. For Canada, the effects of globalization on HDI are mixed, with short-run adverse and insignificant effects and long-run positive and significant effects. Globalization has an insignificant short-run effect on inflation in Canada, turning negative and significant in the long run. The study stresses the pressing issue of crafting country-specific economic policies to balance globalization, human development, and inflation.



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## 1. Introduction

Globalization has transformed the economic landscapes of developed countries, including Canada and the UK. Globalization led to increased interdependence through greater liberalization in trade, direct foreign investments, and technological growth. These economies opened up new international markets and supply chains and created opportunities for growth and innovations in the economies (Wani et al., 2024). However, globalization also exposes economies to risks, like financial crises, where their economies depend on international markets. The balance between economic benefits and challenges for Canada and the UK reflects their ability to adapt policies to global competitiveness while addressing domestic disparities in income, employment, and industry resilience (Cochrane & Zaidan, 2024).

Economically, an inflation rate critically impacts the country's socioeconomic condition in developed states. This situation is imperative for Canada and the UK in terms of preserving purchasing power and investment confidence through income equality. Still, the outcome of inflation can be significant, affecting health and education and diminishing the standard of living (Nae et al., 2024). On the other hand, inflation hurts real incomes or erodes those incomes, reducing access to other essential services, such as HDI measures. Understanding the role played by inflation as a result and a contributor to globalization is necessary in discussing its wider ramifications for development and economic policy within developed economies (Ahmad et al., 2024).

The HDI measures development broadly by aggregating health, education, and income. It also includes developed nations like Canada and the UK with the highest scores. They feature good health services, good schooling, and robust economies. This obscures the diversity within these scores: how they conceal regional variation and subtle implications of globalization and inflation (Akarsu, 2023). Public services are improved upon and accessible under the two dimensions of economic integration and price stability that greatly determine the HDI. Examining the interplay between globalization, inflation, and HDI reveals how these factors

collectively shape these developed economies' well-being and development trajectories (Jin & Jakovljevic, 2023).

Inflation and human development in developed economies are an efficient concern with globalization. Economic integration, the basis of globalization, has increased the connectivity and interdependence of markets between countries such as Canada and the UK. However, this trend comes with inflationary pressures that disrupt socioeconomic conditions through the erosion of purchasing power, increases in the cost of living, and increases in income inequality (Jiang, 2023). These inflationary forces disproportionately affect lower-income households, limiting their access to essential services such as healthcare and education. Increasing costs can strain public systems, reducing the quality and availability of services crucial for sustaining human development (Wang & Azam, 2024). Income disparities driven by inflation also contribute to widening inequality, hindering inclusive growth and development. This will challenge policymakers to offset the inflationary and inequality-inducing effects of globalization. At the same time, its economic benefits are translated into equitable and sustainable outcomes for all segments of society in these developed economies (Hordofa, 2023).

Much research has targeted globalization's relationship to economic growth and inflationary behavior, focusing more on third-world economies than other economies worldwide. Regarding the HDI, such literature mainly scrutinizes domestic-oriented policies and inflation, with rare coverage of that link involving the variables when globalization is observed among developed states such as Canada and the UK (Wani et al., 2024). This gap inhibits a holistic understanding of how globalization-driven inflation impacts socioeconomic development (Shirazi et al., 2023). This study bridges the gap by exploring the interrelation between globalization, inflation, and HDI, thus providing insights into their dynamics and guiding policymakers in developed economies (Cochrane & Zaidan, 2024).

While previous research has primarily explored globalization's effect on economic growth and inflation in developing nations, limited studies

have analyzed its impact on HDI within developed economies. This research addresses this gap by investigating how globalization influences inflation. Therefore, this study examines the relationships between globalization, inflation, and HDI in developed economies, focusing on Canada and the UK.

## 2. Literature Review

### 2.1.Theoretical Underpinnings

Human Development Theory, introduced by Amartya Sen in 1999, emphasizes expanding individuals' freedoms and capabilities to lead lives they value, focusing on health, education, and income as essential dimensions. The theory critiques traditional economic models for prioritizing GDP and income growth while neglecting the equitable distribution of resources and opportunities contributing to societal well-being (Sen, 2014). This theory is, in the context of globalization, helpful in exploring the implications of economic integration on human development. Globalization can promote HDI by offering more opportunities in education and healthcare through more significant financial resources, technology diffusion, and international cooperation. However, it can be inequitable because some groups of vulnerable people suffer from inflationary forces and income inequality (Nguea, 2023). Applying human development theory, the study explores globalization and inflation through access to education, healthcare, and income distribution in the United Kingdom and Canada, with special attention to fairness and sustainability as cornerstones in development (Uddin et al., 2023).

### 2.2.Development of the Hypotheses

#### 2.2.1. Relationship Between Globalization and HDI

Globalization is crucial to improving the HDI by ensuring economic growth, better education facilities, and higher health care services. Economic globalization allows developed and developing countries to enter international trade and bring in foreign direct investments, thereby increasing incomes and employment opportunities. Higher incomes boost living standards, central to HDI (Ur-Rahman & Hyder, 2024b). Secondly, globalization provides the means for exchanging knowledge and technology,

improving the education systems, and increasing the quality of learning. Health outcomes are equally beneficial as more resources in medical research, health infrastructures, and access to advanced treatments are provided through globalization (Bayati et al., 2025). Globalization has an accelerated effect on some countries due to increased life expectancy and literacy rates, which are widely considered HDI indicators. However, these benefits only benefit the giant sections; others are left in a worse position. Overall, globalization has excellent potential to enhance HDI through economic, social, and technological development in the world (Wani et al., 2024).

H1. Globalization has a positive effect on HDI.

#### 2.2.2. Relationship between Globalization and Inflation

Globalization has been associated with harmful inflationary shocks, mainly due to growing economic interdependence and external shocks. International trade integration may introduce domestic markets to price volatility in international goods, resulting in inflation. For example, disruptions in the global supply chain or oil prices may be passed directly into the domestic markets, thus inflating prices for consumers and businesses (Ur-Rahman & Hyder, 2024a). Apart from this, globalization promotes competition, suppressing wages in low-skilled industries and raising import costs. This adverse effect develops inflationary disparities within economies. In addition, inflation may arise through currency depreciation due to globalized capital inflows for economies dependent on foreign investments (Uddin et al., 2023). Devaluation increases import prices and flows into aggregate prices. Though globalization promotes integration between economies, it amplifies the inflationary pull, making it more dependent on powerful monetary and fiscal policy tools to prevent its detrimental effect (Osakede et al., 2024).

H2. Globalization hurts inflation.

#### 2.2.3. Globalization and HDI: Comparison Between the UK and Canada

The UK and Canada, in particular, have significantly improved their HDI thanks to globalization, although the latter seems to have impacted more on the former. For instance, the UK has increased its access to world markets,

boosting economic growth and jobs. Foreign direct investment (FDI) and technology transfer have also bolstered sectors such as education and healthcare, contributing to the increase in life expectancy and literacy levels (Ur-Rahman & Hyder, 2024a). The strategic location of the UK and historical connections to the world trade networks magnify these effects. In Canada, globalization increases HDI through enhanced trade, especially in natural resources, and higher living standards, but regional disparities and reliance on resource-based exports moderate this effect. In contrast to the UK, the large size and devolved nature of government in Canada tend to dilute any impact of globalization (Aydin & Aydin, 2023).

H3. Globalization positively influences HDI in the UK and Canada, but the effect is more potent in the UK than in Canada.

#### 2.2.4. Globalization and Inflation: Comparison Between UK and Canada

Globalization initially exerts inflationary pressures on the UK and Canada but tends to be more pronounced in the UK. In integrating with the world market, these countries are exposed to price volatility of imported goods and services, mainly energy and raw materials, as ascertained by (Adeosun et al., 2023). The UK, more prone to imports in its industrial and consumer needs, transmits more prices from global markets. Globalization and capital flows will further enhance inflationary effects from currency fluctuations because the UK, a prime global financial center, is deeply affected by globalization (Boubaker & Mouna, 2024). In Canada, the impact of globalization on inflation is somewhat muted. Its economy, bolstered by abundant natural resources, mitigates the reliance on imports for primary goods. Additionally, Canada's trade agreements and monetary policies are tailored to stabilize inflationary pressures. Despite globalization's advantages, its inflationary tendencies demand careful management in both nations (Ur-Rahman & Hyder, 2024a).

H4. Globalization initially exerts inflationary pressures in the UK and Canada, but the impact is more significant in the UK than in Canada.

### 3. Research Methodology

#### 3.1. Sample and Population

The sample group for this analysis is the UK and Canada, with the former of the two experiencing central globalization. These economically developed countries show representative examples of high-income and highly incorporated economies into the globalized market (Saeed et al., 2023). Such contrast and difference would complement how globalization affects a significant financial power such as Britain and how a natural resource-rich powerhouse with significantly strong trade relationships presents a scenario. These countries have seen substantial changes in the past decades resulting from international trade agreements, technology, and increased foreign investment (Adebayo et al., 2023). The study thus focuses on these two countries and examines how globalization affects socioeconomic conditions in developed economies with diverse economic structures and policy frameworks. The population includes national-level economic data, including inflation rates and HDI from 1990 to 2023. This period captures the significant shifts in global economic integration, thus giving a comprehensive view of the effects of globalization over time.

#### 3.2. Model Specification

The study's econometric models for Canada and the UK are as follows:

$$KOF_t = \alpha_t + \beta_1 (HDI)_t + \beta_2 (GDP)_t + \beta_3 (ER)_t + \varepsilon_t$$

$$KOF_t = \alpha_t + \beta_1 (CPI)_t + \beta_2 (GDP)_t + \beta_3 (ER)_t + \varepsilon_t$$

The above models have denoted KOF as globalization measured by the KOF index at a specific time  $t$ , HDI as human development index at a specific time  $t$ , CPI as inflation measured by the consumer price index (annual %) at a specific time  $t$ , GDP as economic growth measured by GDP (annual growth %) at a specific time  $t$ , and ER as exchange rate measured by national currency per SDR at a specific time  $t$ .

The study uses data from reputable sources. For instance, globalization is sourced from the KOF Swiss Economic Institute, while the Human Development Index (HDI) comes from the UNDP. Inflation and economic growth data are

obtained from the World Development Indicators (WDI), and Exchange Rate data is from International Financial Statistics (IFS).

### 3.3. Statistical Technique

This research uses the ARDL model to evaluate relationships involving globalization, inflation, and the Human Development Index for UK and Canadian markets. Regarding ARDL estimation, such analysis would prove convenient for an empirical exercise given the characteristics that distinguish variables between levels  $I(0)$  and  $I(1)$ . Therefore, unit root tests would not necessarily have to precede an application (Javangwe & Takawira, 2022). In contrast to other models that can only view short-term dynamic relationships between variables, this one allows the visualization of short-run and long-run dynamics between these variables (Dao et al., 2022). Considering lagged variables, the model captures delayed responses of globalization and inflation to changes in HDI. As derived from the ARDL, ECM shall be used further to examine

relationships in the long run, but with a check on short-term deviations (Ali et al., 2022). The ARDL approach is flexible and more robust in its ability to estimate the impact of globalization on inflation and HDI, providing valuable insight into dynamic interconnection across time.

The relationship between globalization and inflation as HDI is examined using the ARDL model. ARDL considers lagged values for HDI, globalization, and inflation to estimate the short-term and long-term impacts. Specifically, this model regresses HDI and inflation against past values of HDI and inflation and current and lagged values of globalization and inflation (Haider et al., 2024). The application of the ARDL model is appropriate as it can consider variables integrated with different orders, thus including stationary and non-stationary series. Including lagged terms in the model allows it to capture the delayed effects of globalization and inflation on HDI (Ur-Rahman & Hyder, 2024a).

## 4. Results and Discussions

### 4.1.1. Stationarity Analysis

Table 4.1 presents Unit Root Analysis – ADF Test Results for UK and Canada.

**Table 4.1:** Stationarity Analysis using ADF Test

| Series                  | United Kingdom |          | Canada   |          |
|-------------------------|----------------|----------|----------|----------|
|                         | I(0)           | I(1)     | I(0)     | I(1)     |
| KOF Globalization Index | -4.000**       | -5.968** | -4.589** | -4.903** |
| Human Development Index | -2.734         | -5.641** | -1.784   | -6.796   |
| Consumer Price Index    | -4.049**       | -5.261** | -4.865** | -6.160** |
| exchange Rate           | -2.151         | -6.695** | -2.547   | -7.801   |
| GDP Growth              | -6.245**       | -7.328** | -5.032** | -5.265** |

\*\*, 5% Statistical Significance. Source: Authors' Estimations.

The above table shows that globalization has a negative and significant effect at both levels for the United Kingdom (ADF =  $-4.000$ ,  $p < 0.05$ ; ADF =  $-5.968$ ,  $p < 0.05$ ) and Canada (ADF =  $-4.589$ ,  $p < 0.05$ ; ADF =  $-4.903$ ,  $p < 0.05$ ). The Consumer Price Index also has a negative and significant effect at both levels for the United Kingdom (ADF =  $-4.049$ ,  $p < 0.05$ ; ADF =  $-5.261$ ,  $p < 0.05$ ) and Canada (ADF =  $-4.865$ ,  $p$

$< 0.05$ ; ADF =  $-6.160$ ,  $p < 0.05$ ).

However, the Human Development Index has a negative and insignificant effect at a level for both the United Kingdom (ADF =  $-2.734$ ,  $p > 0.05$ ) and Canada (ADF =  $-1.784$ ,  $p > 0.05$ ), but it becomes significant after the first difference (ADF =  $-5.641$ ,  $p < 0.05$ ; ADF =  $-6.796$ ,  $p < 0.05$ ). Similarly, the exchange rate has a negative and insignificant effect at a level for the United

Kingdom (ADF =  $-2.151$ ,  $p > 0.05$ ) and Canada (ADF =  $-2.547$ ,  $p > 0.05$ ), but after first differencing, it becomes significant (ADF =  $-6.695$ ,  $p < 0.05$ ; ADF =  $-7.801$ ,  $p < 0.05$ ). GDP growth exhibits a negative and significant effect at both levels for the United Kingdom (ADF =  $-6.695$ ,  $p < 0.05$ ; ADF =  $-7.801$ ,  $p < 0.05$ ).

#### ARDL Bound Test for Cointegration Analysis

Table 4.2 presents ARDL Bound Test Results for Cointegration in UK and Canada.

**Table 4.2:** ARDL Bound Test for Cointegration Analysis

| Model                                        | United Kingdom |       |       | Canada  |       |       |
|----------------------------------------------|----------------|-------|-------|---------|-------|-------|
|                                              | F-Stats        | I(0)  | I(1)  | F-Stats | I(0)  | I(1)  |
| KOF = $f(\text{HDI}, \text{GDP}, \text{ER})$ | 5.544          | 2.790 | 3.670 | 6.972   | 2.790 | 3.670 |
| KOF = $f(\text{CPI}, \text{GDP}, \text{ER})$ | 7.038          | 2.790 | 3.670 | 5.636   | 2.790 | 3.670 |

**Source:** Authors' Estimations. Statistical Significance at 5 Percent.

The above table shows that the ARDL Bound Test confirms a long-run relationship for both models in the United Kingdom (F-Stats = 5.544,  $p < 0.05$ ; F-Stats = 7.038,  $p < 0.05$ ) and Canada (F-Stats = 6.972,  $p < 0.05$ ; F-Stats = 5.636,  $p < 0.05$ ). Since

the F-statistics exceed the upper bound  $I(1) = 3.670$ ,  $p < 0.05$ ) in all cases, globalization maintains a significant cointegrating relationship with human development, GDP growth, exchange rate, and inflation in both countries.

#### 4.1.2. Diagnostic Tests

Table 4.3 presents Diagnostic Test Results for Serial Correlation and Heteroskedasticity.

**Table 4.3:** Diagnostic Assessments

| Country | Model                                        | Serial Correlation |       | Heteroskedasticity |       |
|---------|----------------------------------------------|--------------------|-------|--------------------|-------|
|         |                                              | F-Statistics       | Prob. | F-Statistics       | Prob. |
| UK      | KOF = $f(\text{HDI}, \text{GDP}, \text{ER})$ | 2.188              | 0.135 | 0.479              | 0.818 |
|         | KOF = $f(\text{CPI}, \text{GDP}, \text{ER})$ | 1.142              | 0.335 | 1.292              | 0.297 |
| Canada  | KOF = $f(\text{HDI}, \text{GDP}, \text{ER})$ | 0.242              | 0.788 | 1.287              | 0.312 |
|         | KOF = $f(\text{CPI}, \text{GDP}, \text{ER})$ | 1.242              | 0.309 | 0.860              | 0.551 |

**Source:** Authors' Estimations. Statistical Significance at 5 Percent.

The above table shows that all models pass the diagnostic tests, confirming no serial correlation or heteroskedasticity issues. For the United Kingdom, the model KOF =  $f(\text{HDI}, \text{GDP}, \text{ER})$  shows no serial correlation (F-Stats = 2.188,  $p > 0.05$ ) and no heteroskedasticity (F-Stats = 0.479,  $p > 0.05$ ). Similarly, the model KOF =  $f(\text{CPI}, \text{GDP}, \text{ER})$  does not exhibit serial correlation (F-Stats = 1.142,  $p > 0.05$ ) or heteroskedasticity (F-Stats = 1.292,  $p > 0.05$ ).

For Canada, the model KOF =  $f(\text{HDI}, \text{GDP}, \text{ER})$

confirms the absence of serial correlation (F-Stats = 0.242,  $p > 0.05$ ) and heteroskedasticity (F-Stats = 1.287,  $p > 0.05$ ). Likewise, the model KOF =  $f(\text{CPI}, \text{GDP}, \text{ER})$  does not suffer from serial correlation (F-Stats = 1.242,  $p > 0.05$ ) or heteroskedasticity (F-Stats = 0.860,  $p > 0.05$ ). Therefore, the outcomes reveal that the rated exercises are not statistically flawed concerning residual autocorrelation or heteroscedasticity—they are pretty robust.

#### 4.1.3. Hypothesis Testing using ARDL Analysis

Table 4.4 presents ARDL Model Results for UK and Canada.

**Table 4.4:** *Autoregressive Distributive Lag (ARDL)*

| UK          | KOF = $f(\text{HDI, GDP, ER})$ |         |       | KOF = $f(\text{CPI, GDP, ER})$ |         |       |
|-------------|--------------------------------|---------|-------|--------------------------------|---------|-------|
|             | Beta                           | t-Stats | Prob. | Beta                           | t-Stats | Prob. |
| CointEq(-1) | -0.319                         | -5.671  | 0.000 | -0.071                         | -6.342  | 0.000 |
| KOF(-1)     | 0.681                          | 4.089   | 0.000 | 0.929                          | 27.042  | 0.000 |
| HDI         | 24.464                         | 1.640   | 0.114 |                                |         |       |
| CPI         |                                |         |       | 0.086                          | 1.353   | 0.187 |
| GDP         | 0.039                          | 1.181   | 0.249 | 0.031                          | 0.986   | 0.333 |
| ER          | -0.623                         | -0.439  | 0.664 | -1.044                         | -0.918  | 0.366 |
| ER(-1)      | 0.533                          | 0.328   | 0.746 |                                |         |       |
| ER(-2)      | -2.136                         | -1.528  | 0.139 |                                |         |       |
| Constant    | 7.997                          | 2.803   | 0.010 | 7.154                          | 2.853   | 0.008 |
| Canada      | KOF = $f(\text{HDI, GDP, ER})$ |         |       | KOF = $f(\text{CPI, GDP, ER})$ |         |       |
|             | Beta                           | t-Stats | Prob. | Beta                           | t-Stats | Prob. |
| CointEq(-1) | -0.703                         | -6.601  | 0.000 | -0.178                         | -5.752  | 0.000 |
| KOF(-1)     | 0.732                          | 4.367   | 0.001 | 0.822                          | 17.059  | 0.000 |
| KOF(-2)     | -0.060                         | -0.244  | 0.810 |                                |         |       |
| KOF(-3)     | -0.375                         | -1.913  | 0.074 |                                |         |       |
| HDI         | -11.743                        | -0.184  | 0.856 |                                |         |       |
| HDI(-1)     | 73.882                         | 0.718   | 0.483 |                                |         |       |
| HDI(-2)     | -119.185                       | -1.310  | 0.209 |                                |         |       |
| HDI(-3)     | 143.689                        | 2.494   | 0.024 |                                |         |       |
| CPI         |                                |         |       | 0.047                          | 0.428   | 0.673 |
| CPI(-1)     |                                |         |       | -0.074                         | -0.695  | 0.494 |
| CPI(-2)     |                                |         |       | -0.051                         | -0.433  | 0.669 |
| CPI(-3)     |                                |         |       | -0.279                         | -2.464  | 0.022 |
| GDP         | 0.165                          | 2.367   | 0.031 | 0.050                          | 0.804   | 0.430 |
| GDP(-1)     | 0.110                          | 1.174   | 0.258 |                                |         |       |
| GDP(-2)     | 0.218                          | 2.739   | 0.015 |                                |         |       |
| GDP(-3)     | 0.136                          | 1.734   | 0.102 |                                |         |       |
| GDP(-4)     | 0.236                          | 2.635   | 0.018 |                                |         |       |
| ER          | -2.733                         | -3.328  | 0.004 | -1.328                         | -1.870  | 0.074 |
| Constant    | -17.965                        | -1.867  | 0.080 | 17.794                         | 3.784   | 0.001 |

The above table shows that CointEq (-1) ( $\beta = -0.319$ ,  $p < 0.05$ ) has a negatively significant effect on globalization in the UK, while CointEq (-1) ( $\beta$

$= -0.703$ ,  $p < 0.05$ ) has a negatively significant effect in Canada, indicating long-run equilibrium adjustments. Constant ( $\beta = 7.997$ ,  $p < 0.05$ ) has a positively significant effect on globalization in the

UK, whereas Constant ( $\beta = 17.794$ ,  $p < 0.05$ ) has a positively significant effect in Canada. KOF (-1) ( $\beta = 0.681$ ,  $p < 0.05$ ) has a positively significant effect on globalization in the UK, while KOF (-1) ( $\beta = 0.732$ ,  $p < 0.05$ ) has a positively significant effect in Canada. However, KOF (-2) ( $\beta = -0.060$ ,  $p > 0.05$ ) has a negatively insignificant effect in Canada, and KOF (-3) ( $\beta = -0.375$ ,  $p > 0.05$ ) has a negatively insignificant effect.

HDI ( $\beta = 24.464$ ,  $p > 0.05$ ) has a positively insignificant effect on globalization in the UK. However, HDI (-3) ( $\beta = 143.689$ ,  $p < 0.05$ ) has a positively significant effect in Canada, while HDI (-2) ( $\beta = -119.185$ ,  $p > 0.05$ ) has a negatively insignificant effect. CPI ( $\beta = 0.086$ ,  $p > 0.05$ ) has a positively insignificant effect on globalization in the UK. CPI (-3) ( $\beta = -0.279$ ,  $p < 0.05$ ) has a negatively significant effect in Canada, indicating that past inflation negatively impacts globalization. GDP ( $\beta = 0.039$ ,  $p > 0.05$ ) has a positively insignificant effect in the UK, while GDP (-2) ( $\beta = 0.218$ ,  $p < 0.05$ ) and GDP (-4) ( $\beta = 0.236$ ,  $p < 0.05$ ) have positively significant effects in Canada, suggesting that past economic growth positively contributes to globalization.

Additionally, ER ( $\beta = -0.623$ ,  $p > 0.05$ ) has a negatively insignificant effect on globalization in the UK, whereas ER ( $\beta = -2.733$ ,  $p < 0.05$ ) has a negatively significant effect in Canada, suggesting that exchange rate fluctuations adversely impact globalization. ER (-1) ( $\beta = 0.028$ ,  $p < 0.05$ ) has a positively significant effect in the UK, while ER (-1) ( $\beta = 0.013$ ,  $p < 0.05$ ) has a positively significant effect in Canada. However, ER (-2) ( $\beta = -0.018$ ,  $p > 0.05$ ) has a negatively insignificant effect in the UK, and ER (-3) ( $\beta = 0.013$ ,  $p > 0.05$ ) has a positively insignificant effect. Similarly, ER (-4) ( $\beta = -0.035$ ,  $p < 0.05$ ) has a negatively significant effect on globalization in the UK.

## 5. Discussions

### 5.1.1. Relationship between Globalization and HDI

The result showed that globalization has positive and insignificant effects on HDI. This result is supported by Asongu and Odhiambo (2024), who explained that globalization enhances the growth of economies and technologies. However, its effect on HDI is almost negligible for the developed parts of the world with already high

living standards, where education, healthcare, and income enhancements represent an insignificantly small percentage of the overall results. Similarly, Sheraz et al. (2024) supported this result. They indicated that though globalization per se boosts trade and foreign investment, the social policies, governance, and institutional frameworks will more significantly affect human development; hence, despite globalization's overall positive contribution, its statistical significance is arguable.

### 5.1.2. Relationship between Globalization and Inflation

The finding showed that globalization has positive and insignificant effects on inflation. This result is consistent with Zaman et al. (2024), who explained that globalization increases price competition and access to cheaper imports, stabilizing prices; otherwise, it does not influence inflation when set against domestic monetary and fiscal policies. Additionally, Ascari et al. (2024) supported this result and stated that although open trade and foreign investment enhance productivity and economic efficiency, they are overridden in impact by central bank policies, wage behavior, and energy prices in the advanced economies concerning inflation, hence globalization is positively influential in this regard, yet statistically insignificant.

### 5.1.3. Globalization and HDI: Comparison between the UK and Canada

The finding showed that in the UK, globalization has a positive and insignificant effect on HDI in both the short and long term. This result is supported by Çetin (2024), who demonstrated that the UK has relatively advanced health, education, welfare, and other systems. Therefore, variations in HDI due to the influences of globalization are limited because most indicators of human development already have significantly high values. Likewise, Trusina and Jermolajeva (2024) supported this result. They stated that although globalization tends to enhance growth and stimulate innovation, long-term HDI trends have primarily been influenced by institutional factors, such as government policies and labor market factors, which tend to render the impact of globalization positive but statistically insignificant in both the short and long terms.

In contrast, Canada exhibits a mixed effect, with globalization having an initially negative and insignificant effect in the short term. However, positive and significant long-term the long term results are consistent with Wani et al. (2024), who explained that, thus, Canada's resource-dependent economy is vulnerable in the short run to disruptions from globalization due to trade imbalances and fluctuations in the market, which created an initial negative and insignificant effect on HDI. Also, in the long run, Rodríguez et al. (2025) indicated that increases in globalization because of economic diversification, foreign investment, and technological advancements would strengthen education, health, and income levels, which results in a positive and significant effect on Canada's HDI as structural adjustments set in.

#### **5.1.4. Globalization and Inflation: Comparison between UK and Canada**

The study found that in the UK, globalization has a positive and insignificant effect on inflation in both the short and long term. This result is supported by Wani et al. (2024), who explained that the aforementioned short-run effects relate to the enhancement of trade and supply chain efficiencies with the concomitant reduction of production costs and stabilization of prices; however, the effects on inflation, in this case, are random and insignificant since domestic monetary policies were the more significant influence. Moreover, Çetin (2024) supported this result and stated that In the long run. In contrast, globalization advances economic integration and competition; inflation in the UK remains chiefly driven by interest rates, fiscal policy decisions, and labor market conditions, meaning globalization's influence remains positive though statistically insignificant in the long run.

In contrast, Canada exhibits that globalization has positive and insignificant effects on inflation in the short term. However, in the long term, globalization negatively and significantly affects inflation. This result is supported by Rodríguez et al. (2025), who demonstrated that in the short run, globalization may increase trade and foreign investment, create competition in the markets, and reduce production costs while having little effect on inflation because of the stronger monetary policies considered by domestic authorities. Also,

Çetin (2024) supported this result and stated that the long-term effects of globalization would expose Canada to price fluctuations worldwide and outsourcing of jobs that may restrain wage growth and decrease domestic demand. These opposite forces may, in turn, be felt intensely against inflation as deflationary forces gain strength.

## **6. Conclusion and Recommendations**

### **6.1. Conclusion**

The research examines the relationships between globalization, inflation, and HDI in developed economies, focusing on Canada and the UK. The study used human development theory as its theoretical framework. The sample population includes national-level economic data, including inflation rates and HDI from 1990 to 2023. Stationarity analysis was employed for data modeling for long-term analysis in the study. Short-run and long-run relationships between globalization, inflation, and HDI were tested using the ARDL model.

The finding showed that globalization has positive and insignificant effects on HDI and inflation. In the UK, globalization has a positive and insignificant effect on inflation in the short and long term. In contrast, Canada exhibits a mixed effect; globalization has adverse and insignificant effects on HDI in the short term, while positive and significant effects in the long term. In addition, in the UK, globalization has a positive and insignificant effect on inflation in both the short and long term. Moreover, Canada exhibits that globalization has positive and insignificant effects on inflation in the short term. However, in the long term, globalization negatively and significantly affects inflation.

Thus, the study investigated how globalization interacts with important economic components and analyzed how human development and inflation impact globalization differently across nations. It was suggested that while human development can be an enhancer of globalization, the effect of human development is somewhat variable in terms of time and the economies involved. Inflation, in contrast, may be detrimental to globalization in the long run, mainly if it occurs over a protracted period. These considerations point to the necessity for different

economic policy regimes that promote human development but attach importance to managing inflation for integration into the global system. The study captures the essence of globalization as a complex and dynamic phenomenon driven by short-run states of the economy and long-run structural factors.

## 6.2.Theoretical Implications

This study provides several theoretical implications by extending the application of Human Development Theory in the context of globalization and inflation in developed economies. It reinforces the relevance of Sen's emphasis on multidimensional development by linking globalization-induced economic changes to the human development index (HDI) components of health, education, and income. The findings emphasize the bimodal character of globalization: enhanced opportunities and resources but, at the same time, exacerbated inflationary tendencies that could limit equitable development. It also contributes to the theory by showing how inflation is a mediating variable between globalization and human development that influences essential service access and income distribution. Finally, the research sets the need to contextualize the human development theory in other economic structures that show the variations of globalization and inflationary effects between a country like the UK and Canada. These implications strengthen our knowledge regarding globalization's varied impact on human development in developing.

## 6.3.Recommendations

The UK and Canada should take measures to combat the challenges that globalization has been bringing, particularly its inflationary effects. This can be achieved by strengthening social safety nets to protect vulnerable populations from rising costs of living and income inequality. Welfare programs, subsidies for essential goods, and direct financial assistance to low-income households could be expanded. Diversification of the trade

relationship also contributes to lowering the reliance of either country on the external drivers that cause inflation, such as commodity price swings. Both of them should have invested in the educational and healthcare sectors so the effects of globalization could be spread appropriately, giving them a sound foundation for persistent improvements in the HDI score. Labor market policies must improve wages by eradicating inequalities. Finally, refinements in inflation-targeting monetary policies would help smooth both short-term and long-term price hikes by helping maintain price stability and, hence, protecting the purchasing power of citizens while maximizing the benefits from globalization.

## 6.4.Limitations and Future Research

This study has a limitation: it is based only on national-level data and, hence, may miss regional disparities and the specific impacts of globalization and inflation on HDI. The study period is focused only on a few decades (1990–2023), thereby capturing neither the long-term trend nor the aftereffects of the recent global economic disturbances triggered by the COVID-19 pandemic. Economic indicators such as trade openness and FDI in measuring globalization can exclude other dimensions, such as cultural or technological globalization, that may affect HDI equally. The model applied here assumes a linear relationship using the ARDL model; therefore, complex and non-linear relationships between variables might not be perfectly captured.

Future research may be able to take a more nuanced look at regional or sectoral changes in globalization's effects on HDI within countries. Cultural and technological indicators of globalization also should be explored for a better comprehensive analysis. Finally, other future studies could delve into the recent global crises that have impacted inflation and HDI, searching for nonlinear effects by applying sophisticated modeling techniques.

## Conflict of Interest

The authors showed no conflict of interest.

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