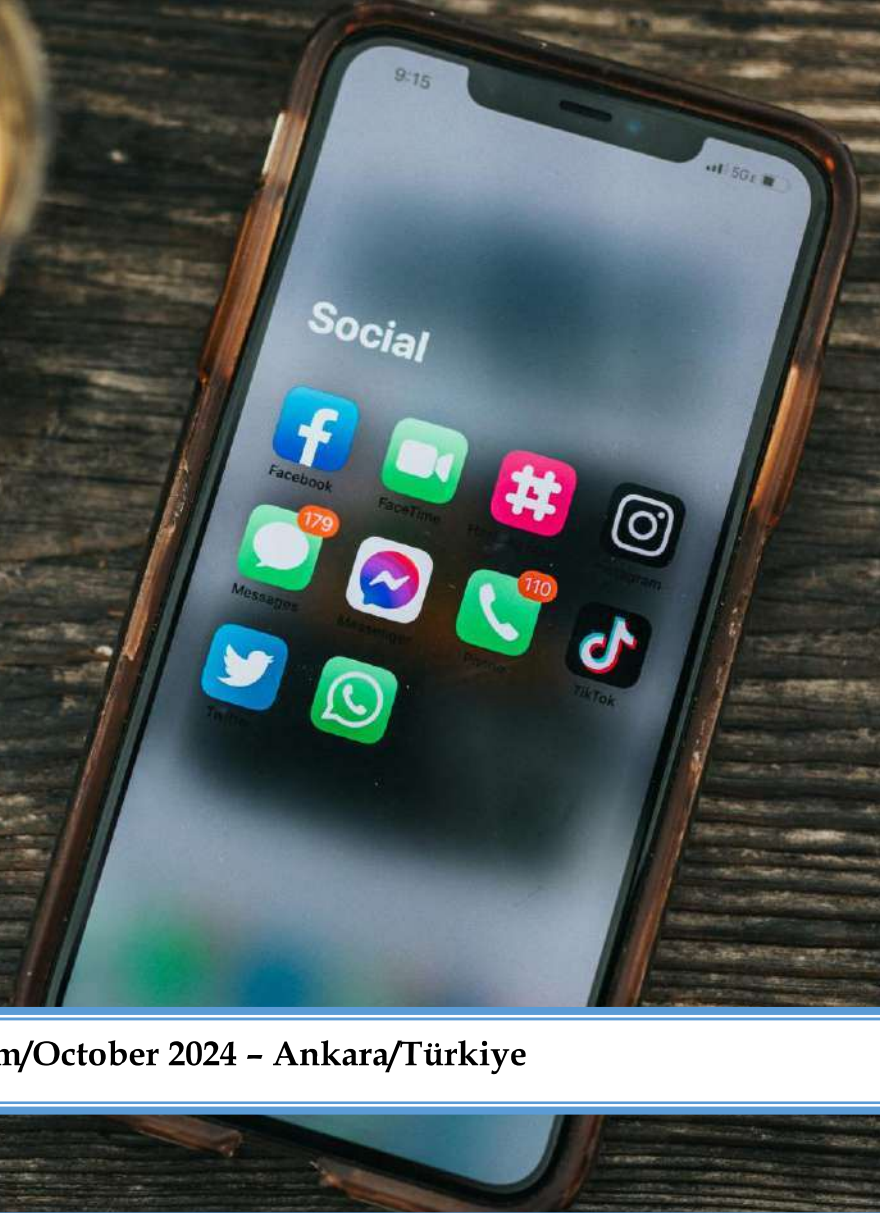


18. Uluslararası Güncel Araştırmalarla Sosyal Bilimler Kongresi Tam Metinleri
Book of Proceeding The 18th International Congress on Social Studies with Recent Research
كتاب المتون الكاملة للمؤتمر الدولي الثامن عشر للدراسات الاجتماعية والتاريخية والقانونية

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ÖN SÖZ

18. Uluslararası Güncel Araştırmalarla Sosyal Bilimler Kongresi, 08-11 Ekim 2024 tarihlerinde Ankara'da gerçekleşecektir. Bu kongre, Saybilder Topluluğunun organizasyonunda ve başta Ankara Hacı Bayram Veli Üniversitesi, Mardin Artuklu Üniversitesi, Carthage University olmak üzere çeşitli yükseköğretim kurumlarının ilmi desteği ile düzenlenmektedir. Kongreye 6 farklı ülkeden davetli konuşmacı davet edilmiştir. Aynı zamanda Türkçe, İngilizce ve Arapça duyurular yapılarak bilim insanlarına çağrıda bulunulmuştur. Bu çağrılar sonrasında Türkiye hariç 12 farklı ülkeden (Birleşik Arap Emirlikleri, Cezayir, Fas, Irak, Katar, Kazakistan, Libya, Mısır, Suudi Arabistan Krallığı, Tunus, Umman, Ürdün) sözlü bildiri kongre programına dâhil edilmiştir. Tüm bildiriler kör hakemlik sürecinden geçirildikten sonra sunuma kabul veya reddi gerçekleştirilmiştir. Bu süreç içerisinde bildirilerin önemli bir kısmına hakemlerden düzeltme talebi gelmiştir. Hakemler tarafından talep edilen düzeltmelerin yapıp yapılmadığı da özenle kontrol edilmiş ve düzeltilerden sonra kabul mektupları düzenlenerek yazarlarına gönderilmiştir.

Başvuru süreci sonucunda 73'ü Türk bilim insanları tarafından ve 77'si farklı ülkelere katılan bilim insanları tarafından hazırlanmış toplam 150 bildiri sözlü sunuma uygun bulunmuştur. Bu kitapta kongrede sunulan bildirilere ait tam metinler yer almaktadır.

Kongrenin bilim insanları arasındaki iletişimi kuvvetlendirmesini, bilgi alışverişini arttırmasını, ortak çalışma zeminlerini oluşturmasını, milletimize, insanlığa ve bilgiyle amel edenlere faydalı olmasını diliyorum.

Prof. Dr. Hüseyin Akyüz
Düzenleme Kurulu Başkanı

The Distributional Consequences of Globalization: A Nonlinear Analysis of Canada's Economic, Social, and Political Dimensions

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Antalya Bilim University

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Abstract

This study examines the effects of globalization on income inequality with its economic, social, and political dimensions in the period 1995–2022, in the case of Canada. The model measures income inequality using the Gini Index as the dependent variable and incorporates three globalization dimensions, along with control variables like human capital, GDP per capita, foreign direct investment, and urban population growth. We employ Fully Modified Ordinary Least Squares (FMOLS) and Canonical Cointegration Regression (CCR) methods to assess long-term relationships. The study addresses the nonlinear effects of globalization's economic, social, and political dimensions on income inequality. The findings indicate that economic and social globalization initially exacerbate income inequality, but eventually lead to improvements in income distribution as their effects reverse beyond a certain threshold. This demonstrates the nonlinear nature of these impacts on income distribution. Additionally, we find that human capital, foreign direct investment, and urban population growth reduce income inequality. However, GDP per capita exhibits a nonlinear relationship with income inequality, consistent with the Kuznets Curve hypothesis. Initially, GDP growth worsens income distribution, but at higher levels, it contributes to improving equality. This relationship was confirmed by the FMOLS estimates, but the CCR method did not confirm this result, suggesting that the impact of GDP on inequality should be interpreted with caution. Similarly, while FMOLS indicates a significant effect of political globalization on income inequality, the CCR method does not confirm this result, implying that the findings for political globalization should also be considered carefully. Overall, this study shows that economic and social globalization initially increase inequality, but their impact diminishes at higher levels. While human capital, foreign direct investment, and urban population growth all contribute to reducing inequality, these results reveal that when income equality is taken into consideration, globalization policies and economic growth strategies should be designed more carefully, with balancing policies aimed at reducing income inequality. In this context, a more detailed examination of the effects of different dimensions of globalization on income distribution will have important implications for policymakers.

Keywords: Economic globalization, social globalization, political globalization, income inequality

Introduction

Globalization is characterized by the increasing interconnectedness of economies, societies and political systems, and in this sense, it has become a determining force in shaping the economic landscape of countries at the global level, with the exception of a few who prefer to remain outside this process. The analysis of the impact of globalization on income inequality necessitates a multidimensional perspective in the case of Canada, which is a nation deeply interconnected with the global economy. This study aims to explore the distributional consequences of globalization in Canada by focusing on its economic, social, and political dimensions from 1995 to 2022. It uses a nonlinear model to reveal how these effects on income distribution evolve over time and across different levels of globalization.

Income inequality has become a high priority topic on many developed countries' agendas. In this context, understanding the role of globalization in exacerbating or alleviating this problem is important for policy makers or political party in power. The literature suggests that economic globalization, which is the mostly driven by foreign direct investment and trade liberalization, may initially increase income inequality but its long-term effects may vary depending on various factors such as the level of economic development and the structure of the economy. Similarly, social globalization, which includes information flows, cultural exchanges, and migration, can have positive, negative, or dual effects on income distribution, which is potentially widening or narrowing income gaps. Political globalization offers another dimension through which globalization, through international cooperation and policy convergence, can affect inequality and offset some of the negative effects of economic and social globalization.

Globalization is characterized by the increased flow of goods, capital, and labor across borders worldwide. Therefore, globalization profoundly affects income inequality, especially in countries like Canada that have deeply integrated economic and social structures into the global economy. The relationship between globalization and income inequality is both complex and nonlinear, with various dimensions of globalization—economic, social, and political—exerting different effects on the distribution of income.

Economic globalization is mostly measured with the help of indicators such as foreign direct investment (FDI) and GDP per capita, and has been widely studied for its impact over income distribution. Foreign direct investment may tend to worsen income inequality by increasing the share of total income received by capital at the expense of labor income. That is, income may concentrate in a smaller share of the population. (Rudra, 2020; Milanovic, 2021; Choi, 2006). However, the effect of FDI on income inequality can vary depending on factors such as the sectoral composition of investment and the level of economic development in the host country (Herzer and Nunnenkamp, 2013). This complexity is further highlighted by the research considering the Kuznets curve hypothesis, which suggests that income inequality initially rises and then falls as a country growth (Kuznets, 1955). Some empirical studies show that globalization can sometimes amplify existing inequalities, particularly in countries with inadequate social safety nets and labor protections (Bergh and Nilsson, 2010; Asteriou, Dimelis, and Moudatsou, 2014).

Social globalization is influenced by factors such as migration, cultural change, and information transfer. This creates a dual effect on income inequality. One aspect is that it can positively impact income distribution fairness by contributing to the development of human capital through knowledge diffusion and increased labor mobility (Rodrik, 2018). The other aspect is that it can negatively impact income distribution fairness by creating social stratifications and labor market segmentation, particularly when certain groups are unable to fully benefit from global opportunities (Stiglitz, 2022). This dual effect suggests that the impact of globalization may not be linear. In other words, the same forces that drive economic growth can also deepen social divisions.

In the context of international cooperation and policy convergence, political globalization has the potential to mitigate the negative effects of economic and social globalization on income inequality. Global governance structures can guide national policies toward achieving a fairer income distribution and help to counterbalance the inequalities deepened by economic and social forces (Giddens, 2021; Held, 2023). However, the effectiveness of these political mechanisms largely depends on local conditions and the willingness of national governments to implement equitable policies.

Population dynamics, especially urban population growth, complicate the relationship between globalization and income inequality. Migration from rural areas to cities in search of better economic opportunities accelerates urbanization. If urban labor markets cannot absorb the incoming workers, it can lead to high unemployment or underemployment. As a result, inequality increases (Cornia, 2014; Sassen, 2020). Additionally, globalization tends to concentrate economic activities in urban areas, further deepening the rural-urban income gap (Harrison and McMillan, 2007).

Financial development is another important factor that determines the impact of globalization on income inequality. In countries with more developed financial systems, financial markets often disproportionately benefit the wealthy. In this regard, globalization can increase income inequality (Naceur and Zhang, 2016). Conversely, in countries with broader financial inclusion, globalization allows more people to access credit and financial services. From this perspective, it can help reduce income inequality. This also enables broader participation in the economy (Jaumotte, Lall, and Papageorgiou, 2013).

The impact of globalization on income inequality in Canada is not a simple relationship; rather, it is a complex process. This reflects the interconnected effects of economic, social, and political factors. Understanding these dynamics requires a multifaceted approach that takes into account the effects within these areas, as well as the critical roles of population dynamics and financial development. Nonlinear modeling techniques allow us to better grasp these complex relationships. These techniques indicate that the influence of globalization on income inequality is not straightforward and involves the interaction of multiple factors (Aghion and Howitt, 2020; Acemoglu, 2021). This study examines the nonlinear relationships between different dimensions of globalization and income inequality in Canada, contributing to the existing literature. Using parameter estimation methods such as Fully Modified Ordinary Least Squares (FMOLS) and Canonical Cointegration Regression (CCR), the study explores not only the direct effects of globalization but also potential situations where the effects could shift beyond certain thresholds.

1. Empirical Methodology

In this study, we use Fully Modified Ordinary Least Squares (FMOLS) and Canonical Cointegration Regression (CCR) in order to examine the long-term relationships between globalization and income inequality in Canada. These methods address issues of endogeneity and serial correlation, providing reliable and unbiased estimates.

FMOLS is designed to correct problems related to endogeneity in the explanatory variables and serial correlation in the residuals. This method improves the ordinary least squares (OLS) estimator by incorporating semi-parametric adjustments, providing consistent estimates of the cointegrating vector. In order to robust FMOL consequences, CCR resolves endogeneity by transforming the variables, making the OLS estimator consistent with the cointegrating vector, while also correcting for serial correlation. This method is particularly useful when there are issues of autocorrelation or endogeneity in long-term relationships. Both methods are applied to a model that explores the effects of economic, social, and political globalization on income inequality, along with control variables such as human capital, GDP per capita, foreign direct investment, and urban population growth. The inclusion of squared terms for globalization variables allows us to consider the possibility that the impact of globalization on income inequality may not be strictly linear

2. Variables and Model Specification

Table 1 presents the variables used in the analysis, each with its corresponding notation, indicator, and data source. Income inequality (IIE) is measured by the Gini Index, sourced from the Solt Inequality Database. The three dimensions of globalization are captured using indices from the KOF Swiss Economic Institute: economic globalization (EcG), social globalization (SoG), and political globalization (PoG). Human capital (HC) is represented by an index based on years of schooling and returns to education, sourced from Penn World Table 10. Income per capita (GDP) is measured in constant 2015 US dollars and sourced from the World Bank, as are foreign direct investment (FDI), indicated by net inflows as a percentage of GDP, and population growth (POP), measured by the annual growth rate of the urban population.

Table 1. Variables

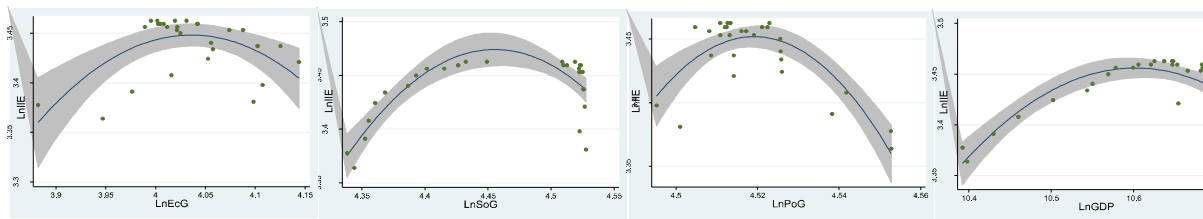
Variable	Abrev.	Indicators
Income Inequality	IIE	Gini Index
Economic globalization	EcG	Economic globalization, de facto
Social globalization	SoG	Social globalization, de facto
Political globalization	PoG	Political globalization, de facto
Human capital	HC	Human capital index, based on years of schooling and returns to education
Income per capita	GDP	GDP per capita (constant 2015 US\$)

Foreign direct investment	FDI	Foreign direct investment, net inflows (% of GDP)
Population	POP	Urban population growth (annual %)

Sources: Gini Index from Solt - Inequality Database; globalization indices from KOF Swiss Economic Institute; human capital index from Penn World Table 10.01; GDP, FDI, and population growth from the World Bank.

Before constructing an empirical model, it is worth depicting the relationships between income inequality and key variables.

Figure 1. The relationships between income inequality and key variables



(a) LnIIE-LnEcG (b) LnIIE-LnSoG (c) LnIIE-LnPoG (d) LnIIE-LnGDP

Figure 1(a) illustrates the relationship between the logarithm of income inequality (LnIIE) and the logarithm of economic globalization (LnEcG). The relationship appears nonlinear, suggesting that at lower levels of economic globalization, income inequality tends to increase rapidly. However, as globalization intensifies, the rate of increase in inequality diminishes, indicating a possible threshold beyond which further globalization has a less pronounced impact on inequality.

Figure 1(b) plot shows the relationship between LnIIE and the logarithm of social globalization (LnSoG). Similar to economic globalization, there is a nonlinear relationship where income inequality increases with social globalization, but the impact weakens at higher levels. This could imply that while initial increases in social globalization exacerbate inequality, the effect tapers off as social globalization deepens.

Figure 1(c) The graph depicts the relationship between LnIIE and the logarithm of political globalization (LnPoG). The relationship is less clear compared to the other variables, but there seems to be a general trend where increases in political globalization are associated with a reduction in income inequality. However, the impact is not as strong or consistent, suggesting that political globalization's effect on inequality may be more context-dependent or influenced by other factors.

Figure 1(d) explores the relationship between LnIIE and the logarithm of GDP per capita (LnGDP). The graph indicates a nonlinear relationship consistent with the Kuznets Curve hypothesis, where income inequality initially increases as GDP per capita rises but begins to decrease after reaching a certain level of economic development. This suggests that economic growth initially exacerbates inequality, but higher levels of income per capita eventually lead to more equitable income distribution.

These graphs collectively highlight the nonlinear relationships between income inequality and economic-social-political- dimensions of globalization and economic growth. Therefore, we consider this structure while designing the empirical model, which is presented in Eq.1:

$$IIE = f(EcG, EcGS, SoG, SoGS, PoG, PoGS, HC, GDP, GDPS, FDI, POP) \quad (1)$$

Eq.1 represents a general functional form where income inequality is modeled as a function of economic globalization (EcG), social globalization (SoG), political globalization (PoG), human capital (HC), income per capita (GDP), foreign direct investment (FDI), and population growth (POP). In this model, squared terms for globalization variables (EcGS, SoGS, PoGS) are included to capture potential nonlinear effects.

$$IIE_t = \beta_0 + \beta_1 \cdot EcG + \beta_2 \cdot EcGS + \beta_3 \cdot SoG_t + \beta_4 \cdot SoGS_t + \beta_5 \cdot PoG_t + \beta_6 \cdot PoGS_t + \beta_7 \cdot HC_t + \beta_8 \cdot GDP_t + \beta_9 \cdot GDPS_t + \beta_{10} \cdot FDI_t + \beta_{11} \cdot POP_t + \varepsilon_t \quad (2)$$

In Eq 2, β_0 represents the intercept, and β_1 through β_{11} are the coefficients that quantify the impact of each independent variable on income inequality. The error term ε_t captures the variation in income inequality not explained by the model. The inclusion of the squared terms (EcGS, SoGS, PoGS, GDPS) is particularly important as it allows the model to account for possible nonlinear relationships between the forms of globalization and income inequality. This approach helps to identify whether the impact of globalization increases or decreases at different levels of globalization.

3. Estimations

Table 2 is an important step in verifying the long-term relationships between the series and achieving consistent results. In this context, the stationarity of the series has been analyzed using ADF, PP, KPSS, and Zivot-Andrews tests. According to the ADF, PP, and KPSS test results, the income inequality (IIE), human capital (HC), foreign direct investment (FDI), and population growth (POP) series are stationary at the level. However, the Zivot-Andrews test, which takes structural breaks into account, indicates that these series become stationary after first differencing. Economic globalization (EcG), social globalization (SoG), and political globalization (PoG) are not stationary at the level but become stationary after first differencing. GDP per capita (GDP) is not stationary at the level, but it is observed to be stationary after differencing. The residuals are stationary at the level. Therefore, this outcome of residuals confirms the existence of long-term relationships among the variables. Consequently, this supports the appropriateness of using FMOLS and CCR methods for estimating these relationships.

Table 2. Unit Root Test Results

Variable	ADF test stat.		PPtest stat.		KPSS test stat.		ZA test stat.	
	Level	1st diff.	Level	1st diff.	Level	1st diff.	Level	1st diff.
IIE	-3.612*	.	-4.165*	.	.589*	.0599	-1.303	-8.872*
EcG	-2.603	-3.531**	-2.523	-3.513*	.264*	.194	-3.401	-6.754*
SoG	-1.465	-4.092*	-1.436	-4.059*	.516*	.123	-3.199	-4.987*

PoG	-2.444	-6.304*	-2.476	-6.465*	.327*	.050	-4.246	-7.013*
HC	-5.351*	.	-7.129*	.	.647*	.0258	-2.486	-7.304*
GDP	-2.148	-5.178*	-2.449	-5.183*	.472*	.0398	-3.791	-5.881*
FDI	-3.234**	.	-3.313**	.	.0597	.	-5.371*	.
POP	-3.716**	.	-3.636*	.	.121	.	-4.090	-4.721**
Residual	-4.948*	.	-4.942*	.	.0514	.	-5.437*	.

Note: * $p < 0.01$, ** $p < 0.05$. Critical values are as follows: ADF and PP (%1: -3.736, %5: -2.994), KPSS (%5: 0.146, %1: 0.216), Zivot-Andrews ZA (%1: -4.93, %5: -4.42). For KPSS, the null hypothesis (H0) is that the series is stationary. For ADF, PP, and ZA, the null hypothesis (H0) is that the series contains a unit root.

In the following analysis, we explore the relationships between income inequality and globalization – economic, social, and political – alongside other critical factors such as human capital, income per capita, foreign direct investment, and urban population growth. Recognizing the potential for nonlinear dynamics in these relationships, the model includes both linear and squared terms for the globalization and income variables to capture any quadratic patterns that might emerge. The estimation results from two robust techniques, FMOLS and CCR. Table 3 presents the detailed coefficients and statistical significance of these variables.

Table 3. FMOLS and CCR Estimations

IIE	FMOLS			CCR		
	Coef.	Std.Err.	z	Coef.	Std.Err.	z
EcG	4.243*	0.334	12.690	4.260*	0.465	9.150
EcGS	-0.036*	0.003	-12.530	-0.036*	0.004	-8.880
SoG	5.930*	0.296	20.070	6.621*	0.751	8.810
SoGS	-0.033*	0.002	-19.410	-0.037*	0.004	-8.600
PoG	-7.015*	1.935	-3.630	-7.678	8.693	-0.880
PoGS	0.040*	0.011	3.800	0.044	0.048	0.930
HC	-17.005	1.214	-14.010	-18.444*	2.638	-6.990
GDP	0.002*	0.0005	3.45	0.002*	0.002	0.79
GDPS	-1.80*	5.57	-3.23	-1.75	2.40	-0.73
FDI	-0.066*	0.010	-6.780	-0.072*	0.019	-3.730
POP	-0.842*	0.067	-12.540	-1.073*	0.222	-4.840
R2 =	.8633			.9620		
Adj. R2=	.7779			.9382		

Note: * $p < .01$, ** $p < .05$

In Table 3 the inclusion of both linear and squared terms for key variables such as economic globalization, social globalization, political globalization, and income per capita reflects the potential nonlinear relationships within the model. These squared terms are crucial because they account for the possibility that the relationship between these variables and income inequality might not be linear, but instead, may exhibit a quadratic pattern where the effect intensifies or diminishes beyond certain levels.

Starting with economic globalization (EcG), both FMOLS and CCR estimations indicate a positive and significant relationship between economic globalization and income inequality. The coefficients for EcG are 4.243 and 4.260 in the FMOLS and CCR estimations, respectively, suggesting that as Canada becomes more economically integrated with the global economy, income inequality tends to rise. However, the inclusion of the squared term for economic globalization (EcGS) provides further information to this relationship. The negative and significant coefficients for EcGS (-0.036 in both estimations) imply that the marginal effect of economic globalization on income inequality diminishes as globalization increases. In other words, while initial increases in economic globalization may exacerbate income inequality, this effect slows down at higher levels of globalization, potentially indicating a saturation point where further integration does not worsen inequality at the same rate.

A similar pattern is observed with social globalization (SoG). The positive and significant coefficients for SoG (5.930 in FMOLS and 6.621 in CCR) indicate that greater social globalization, which includes the flow of ideas, information, and people, is associated with higher income inequality. This suggests that as Canadian society becomes more interconnected with the global community, disparities in income distribution widen. However, the negative and significant squared terms for social globalization (SoGS) suggest a nonlinear relationship where the rate at which social globalization increases income inequality diminishes as social globalization intensifies. This quadratic pattern could reflect a scenario where, at very high levels of social globalization, the forces that initially exacerbate inequality—such as differential access to global networks or cultural capital—begin to have less of an incremental impact.

The relationship between political globalization (PoG) and income inequality presents a noteworthy picture. In the FMOLS estimation, the negative coefficient for PoG (-7.015) indicates that increased political globalization tends to decrease Gini coefficient. This may be due to the adoption of international standards, policies, or governance practices that promote a more equitable income distribution. Furthermore, the positive and significant coefficient for the squared term of political globalization in the FMOLS estimation suggests a nonlinear relationship. This indicates that the effect of political globalization in reducing inequality decreases beyond a certain level. In other words, beyond a certain point, additional political globalization is not as effective in reducing inequality. This could be explained by diminishing returns from international political integration or challenges in implementing global norms at the national level. However, in the CCR estimation, the coefficient for PoG is not statistically significant. This discrepancy suggests that the impact of political globalization on income inequality may be less pronounced or more context-dependent compared to the effects of economic and social globalization.

The inclusion of the squared term provides a more detailed view of the impact of per capita income (GDP) on income inequality. In the FMOLS estimation, the positive and significant coefficient for GDP indicates that an increase in per capita income initially worsens income distribution. This suggests that the benefits of economic growth in the early stages are not distributed evenly, leading to increased inequality. However, the negative and significant coefficient for the squared term of GDP (GDPS) shows that beyond a certain threshold, income growth reduces inequality. This nonlinear relationship suggests that while initial increases in per capita income worsen income distribution, at a certain point, further income increases promote a more equitable distribution. This can be explained by mechanisms that come into play at higher income levels, such as social safety nets, progressive taxation, or more inclusive economic policies.

Human capital (HC) plays a key role in determining income distribution. It directly affects productivity and earning potential, as it includes the education and skills of the workforce. In the FMOLS estimation, the coefficient for HC is -17.005, which is negative and significant. This indicates that an increase in human capital significantly reduces income inequality in Canada. Higher levels of education and skill acquisition lead to better access to well-paying jobs and economic opportunities, promoting a fairer income distribution. The CCR estimation shows a similar result, with a negative and significant coefficient of -18.444. These findings highlight that investing in education and skill development is a crucial tool for addressing inequality, which might be intensified by globalization.

Foreign direct investment (FDI), measured as net inflows as a percentage of GDP, has a complex effect on income inequality. In both the FMOLS and CCR estimations, the coefficient for FDI is negative and statistically significant. It is -0.066 in the FMOLS estimation and -0.072 in the CCR estimation. This indicates that higher levels of FDI tend to reduce income inequality in Canada. Foreign investments can create jobs, support technology transfer, and stimulate economic growth, contributing to broader economic benefits and a more equitable income distribution. However, the size of the coefficient is relatively modest compared to other variables. This suggests that while FDI plays a role in reducing inequality, its impact may not be as strong as human capital or the different dimensions of globalization.

Population growth (POP), measured by the urban population growth rate, has a significant impact on income inequality. In both the FMOLS (-0.842) and CCR (-1.073) estimations, the coefficients for POP are negative and statistically significant. This indicates that faster urban population growth is associated with a decrease in income inequality. One possible reason for this is that urbanization generally leads to higher productivity, better access to education and healthcare, and more economic opportunities. These factors can help reduce income disparities. The negative coefficient suggests that as more people migrate to urban areas and participate in the urban economy, the benefits of economic growth are spread more widely, thereby reducing income inequality.

Conclusion

This study has explored the impacts of globalization on income inequality in Canada, focusing on its economic, social, and political dimensions from 1995 to 2022. By designing nonlinear model, and employing FMOLS and CCR cointegration regression techniques, we have been

able to capture the relationships between globalization and income distribution, which reveals the nonlinear nature of these dynamics.

The findings indicate that economic growth, economic globalization, and social globalization initially increase income inequality. This suggests that in the early stages of globalization, there are negative effects on income distribution equity. However, as globalization progresses, these effects reverse; beyond a certain threshold, economic growth, economic globalization, and social globalization can contribute to a more equitable income distribution.

In the FMOLS estimation, political globalization is found to reduce income inequality, but the CCR analysis shows a less clear effect. This implies that caution is needed when interpreting the impact of political globalization. The study also highlights the important role of human capital, foreign direct investment, and urban population growth in reducing income inequality. These factors consistently contribute to a more balanced income distribution. Human capital is particularly noteworthy because education and skill development play a critical role in mitigating the negative effects of globalization and significantly reduce income inequality. Similarly, foreign direct investment and urban population growth also reduce inequality, though their impact is more limited compared to the effects of globalization and human capital.

The research demonstrates that the relationship between globalization and income inequality in Canada is not straightforward. It is characterized by complex and nonlinear dynamics that vary depending on different dimensions of globalization. To harness the benefits of globalization while minimizing its adverse effects on income distribution, targeted policies are necessary. These policies should aim to strengthen human capital, promote inclusive economic growth, and ensure a more equitable distribution of globalization's benefits. Additionally, the nonlinear effects suggest that a single policy approach may not be sufficient. Instead, policies need to be flexible enough to adapt to the evolving dynamics of globalization. Specifically, policies that strengthen human capital, effectively manage urbanization, and ensure that the benefits of globalization reach all segments of society are crucial for creating a fairer economic environment in Canada

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