DOI: 10.20472/EFC.2023.019.008

JACQUES DE JONGH
School of Economic Sciences, North-West University, South Africa

PRECIOUS MNCAYI
School of Economic Sciences, North-West University, South Africa

THE IMPACT OF ECONOMIC GLOBALISATION ON GENDER INEQUALITY IN SACU COUNTRIES: A PANEL ECONOMETRIC ANALYSIS

Abstract:

An interconnected and globalised world has arguably been one of the most prominent features of the 21st century. Globalisation, as a process, has altered many socio-economic features, and the gendered aspects of society have been among the most prominent. Ongoing debates suggest that the modern wave of neoliberal and technologically inclined integration has seen a more significant improvement in the socioeconomic position of females. Though from the developing world, concerns have been raised on the skill-biased nature of the process, its creation of a gendered division of labour, and trade liberalisation practices that have mainly benefited male-dominated sectors. Therefore, the study's main objective was to determine the impact of economic globalisation on gender inequality in Southern African Customs Union (SACU) countries. This study utilised a novel panel econometric approach, accounting for structural breaks, cross-sectional dependence and heterogenous slopes by employing the dynamic common correlated effects estimator. Causal links were identified using a Dumitrescu-Hurlin causality test. The main findings indicate that economic globalisation improves gender inequality in SACU countries. There is also evidence of a bidirectional causal relationship between the variables, suggesting that the way these countries integrate into the global economy is both a cause and effect of gender income distributions. It is therefore recommended that policies aimed at reducing gender inequality within the customs union consider the broader economic and social context in which economic globalisation is embedded. Strategies must promote gender-sensitive trade practices and improve women's education and training in preparation for employment in export-oriented sectors. Moreover, policymakers should prioritise attracting investments that enable the cohort and their communities while improving women-owned businesses' participation in global value chains.

Keywords:

Globalisation; Economic globalisation; Inequality; Gender inequality; SACU; Southern Africa

JEL Classification: F00, F63, F15

1. INTRODUCTION

An interconnected and globalised world has been a defining feature of the 21st century. The Southern African Customs Union (SACU), one of the oldest customs unions, has played a significant role in fostering regional and global integration among its members, namely, South Africa, Namibia, Botswana, Eswatini, and Lesotho (SACU, 2022). Since its formal introduction in 2004, the SACU customs union has proven to be one of the continent's most stable and functional unions (Lwanda, 2013). The SACU has provided its members with the advantages of enhanced regional trade and positioned itself as a prominent region within sub-Saharan Africa (Asante & Stanley, 2022). In fact, intra-SACU trade accounts for over 14 per cent of the customs union's total trade, surpassing that of other African regions (Makochkanwa & Matchaya, 2019). According to Stuurman (2020), intra-SACU exports and imports have significantly increased since adopting the new agreement in 2004, with imports increasing from R63 billion in 2004 to R186 billion in 2018. Moreover, the value of intra-SACU imports has grown from R59 billion to R186 billion over 15 years (SACU, 2019). Recent estimates indicate that SACU's exports and imports account for approximately 32 and 36 per cent, respectively, of the broader sub-Saharan Africa's exports and imports, contributing nearly a fifth of sub-Saharan Africa's GDP, although they represent less than one per cent of the total world trade (World Bank, 2022).

While this increased regional and global integration has deepened globalisation in Africa, it has also led to significant socio-economic changes, particularly concerning gender dynamics within society (Zulu, 2019; Baleyte *et al.*, 2021). Ongoing debates suggest that the modern wave of neoliberal and technologically driven integration has brought about improvements in the socio-economic position of women (Aničić & Nestorović, 2020). However, concerns have been raised about the skill-biased nature of this process, the creation of a gendered division of labour, and the trade liberalisation practices that primarily benefit male-dominated sectors, particularly in the developing world (Hartman *et al.*, 2020; Engel *et al.*, 2021; Martorano *et al.*, 2021; Naanwaab, 2022). The implications of technological innovation also pose threats to gender stability (Hartman *et al.*, 2020). It is important to note that not everyone has benefited from the advantages of globalisation (Oramah & Dzene, 2019), particularly in developing African countries. It has been argued that these countries have yet to fully enjoy the benefits due to their failure to take the risks associated with having highly globalised economies (de Jongh, 2023; United Nations, 2020b).

In particular, SACU has endured most waves of globalisation (SACU, 2022; Aromolaran & Olebogeng, 2021; de Jongh, 2023). These countries have the highest inequality rates in Africa and struggle with relatively poor developmental outcomes (Malefane, 2021; World Bank, 2022). The customs union has undergone significant changes throughout its existence, reflecting the characteristics of both old and new regionalism in Africa and the notable pre- and post-colonial complexities specific to these territories (Blaauw, 2007). Therefore, it is crucial to assess whether globalisation has perpetuated persistent inequalities within SACU member countries, particularly gender disparities. Against this backdrop, this study examines the impact of economic globalisation on gender inequality in SACU countries. This topic is important because of its potential social, economic, and policy implications. Economic globalisation can profoundly influence economic development by creating new opportunities, expanding markets, and driving economic growth.

However, if gender inequalities persist or worsen within a globalised economy, women may not fully benefit from these opportunities, hindering overall economic progress. Furthermore, economic globalisation can shape labour market dynamics, including employment patterns,

wages, and working conditions. Therefore, examining how these changes affect women's access to decent work (linked to Sustainable Development Goal 8) and economic empowerment is essential. Understanding the impact of globalisation on gender inequality in the labour market can help identify barriers and inform policy interventions to promote fair and inclusive employment opportunities for all. By comprehending how globalisation affects gender disparities, policymakers can develop targeted policies that address the root causes and create an enabling environment for women's empowerment and equal participation in the global economy. To provide a comprehensive understanding, this paper is organised as follows: Section 2 discusses the existing literature on economic globalisation and gender inequality, and Section 3 reviews the methodology and research design. Section 4 presents the study's results and discussion, followed by the conclusion in the final section.

2. LITERATURE REVIEW

2.1 Understanding economic globalisation

The concept and understanding of globalisation have evolved significantly (Huh & Park, 2021). With the evolution of globalisation, it has expanded beyond its initial focus on economic aspects, such as trade and finance, revealing the simultaneous emergence and impact of diverse non-economic factors, such as the dispersal of cultures and an overarching global political climate (Goryakin *et al.*, 2015; Thibane & Wait, 2017). As such, globalisation is not a uniform process, but rather complex and multifaceted (Zajda, 2021). In this regard, the literature distinguishes between three main domains of globalisation comprising economic, social and political occurrences (Grebosz & Hak, 2015; Bickley *et al.*, 2021).

Among these domains, economic globalisation is arguably the most visible and influential (Fatima *et al.*, 2020). In essence, economic globalisation concerns itself with all relevant economic factors that have come to characterise the global economy, including the international exchange of goods, services, technology and even labour are considered central elements towards understanding the impact of the process (Thibane & Wait, 2017; Siddiqui, 2020). According to the Bank for International Settlements (2017:97), economic globalisation primarily comprises two aspects relating to international trade and financial market integration, which throughout history has shaped the global economic framework (Gygli *et al.*, 2019).

First, since its inception from the ideas of Smith (1776), international trade has inferred a significant number of global interactions between economies. According to Siddiqui (2017), the implementation of liberalisation measures has been connected to this phenomenon, enabling the unrestricted mobility of resources, and reducing state intervention in the ownership and management of goods and services. Hence, economic globalisation through trade comprises the fragmentation of the production system, designating specific countries with the production and trade of specific commodities or services (UNDP, 2021). Furthermore, as market control is relaxed, the domain similarly withholds an international division of labour, in which low-skilled, low-priced, and high-skilled expensive labour can rapidly move to ensure the most efficient production within the global market (Rapoport, 2016). In this regard, trade agreements between different countries or regions are set to enhance and streamline these processes by offering more excellent market stability and preferential conditions within these interactions (Anukoonwattaka & Heal, 2014).

On the other hand, the globalisation of financial markets has been concomitant with the liberalisation of trade. Financial liberalisation in this regard has, as a result, led to significant mobility of capital and financial transactions across the globe (Broner & Ventura, 2016). Within this form of globalisation, foreign direct investment (FDI), financial investment from

international actors into local conditions to own a part of the production, has played a central role. For countries, these inflows can diversify their capital structures and gain additional injections, reducing the gap between savings and investment (Pagliari & Hannan, 2017). Additionally, global financial market integration is characterised by the growing influence of multinational and transnational corporations (Kim & Milner, 2019). These companies globalise production to reduce transportation costs (Nachum et al., 2008) and gain tariff-free access to foreign markets (Gulotty, 2014). Innovative ICT sectors have also been vital to integrating financial markets (Alshubiri *et al.*, 2019). Bekkers *et al.* (2021) argue that digital platforms have revolutionised international business economics. These platforms have reduced transaction costs and enabled financial inclusion, even in remote areas.

Given the various aspects encompassed by economic globalisation, it is evident why it is considered the most influential. Globalised economic processes benefit nation-states greatly, bringing them significant advantages. Global market access has enabled countries to gain more business opportunities, investment, and specialised production, leading to more efficient pricing and labour resources (Aničić & Nestorović, 2020; International Monetary Fund, 2008). This has offered countries the chance to boost their growth and development. Nonetheless, it is essential to note that economic integration likewise withholds various risks (World Trade Organisation, 2021). The following sub-section discusses these risks and their link to gender inequality.

2.2 Understanding gender inequality in the context of economic globalisation

As previously noted, not all nations have benefited from globalisation. In particular, the highly integrated global financial market carries a significant risk of financial contagion for local markets (Devereux & Yu, 2020). Other worries centre around multinational companies' capacity and power to impose severe working conditions while transferring all their profits to their home market (Aisbett *et al.*, 2019). In this regard, a more open and globalised economic landscape can disrupt local competition, leading to significant repercussions for employment and income, particularly for impoverished people (Oramah & Dzene, 2019). These risks now endanger employment dynamics and could perpetuate gender inequality. Çağatay and Ertürk (2004) argue that globalised economic processes have deeply impacted men and women worldwide, while also maintaining that social disparities, including those caused by gender distinctions, impede progress, and weaken economic growth. Gender inequality diminishes the quality of life and reduces productivity, impeding economic efficiency and growth (Dominic *et al.*, 2017). For example, African women experience high levels of inequality and discrimination that impede their socioeconomic growth, thus reducing their contributions to the sustainable development of the African continent (de Jongh, 2023).

The link between globalisation and gender inequality is intricate and multifaceted (Ullah *et al.*, 2023). Globalisation has both beneficial and detrimental effects on gender equality. On the one hand, globalisation has enabled women to progress in various ways. It has opened new economic prospects, providing access to education and knowledge, and spreading awareness of women's rights and empowerment (World Bank & World Trade Organisation, 2020; United Nations Conference on Trade and Development, 2022). The Cultural Modernization Theory supports these advantages, proposing that as societies become more interconnected through globalisation, traditional cultural values and norms concerning gender roles and equality may change, potentially resulting in more gender equality and women’s empowerment in various aspects of life. However, the actual effect will depend on a variety of elements, including local contexts, power dynamics, and policy interventions, which can either reinforce or challenge existing gender hierarchies (Potrafke & Ursprung, 2012; Ben-Nun Bloom, 2016; Ben-Nun Bloom *et al.*, 2017). In many parts of the world, women have made considerable strides in

joining the formal labour force, achieving higher levels of education, and gaining greater economic independence (Eastin & Prakash, 2013; Ben-Nun Bloom *et al.*, 2017; Kumar, 2022).

Nevertheless, globalisation has also perpetuated and intensified gender inequalities in several ways (Heimberger, 2020), adversely impacting women's labour force involvement and economic prospects in specific contexts, particularly in developing nations (Bøler *et al.*, 2015). To begin with, the global division of labour has frequently reinforced gender roles, with women disproportionately occupying low-wage, precarious, and informal sectors (Marchand & Domínguez, 2019). Women are often subject to occupational segregation, particularly in exporting firms, with limited access to higher-paying jobs and experiencing wage disparities compared to men. Janse van Rensburg *et al.* (2020) in 2020, it was found that this was true for women in South Africa, with the argument being that due to family obligations, they often experience a wage gap compared to men, especially regarding their perceived lack of ability to communicate with customers and suppliers internationally. This has consequently widened existing gender wage disparities, intensifying gender inequality.

Secondly, globalisation has been linked to the feminisation of specific industries, such as labour-intensive manufacturing and service sectors, where women are employed in large numbers but often suffer from inadequate working conditions, low wages, and limited social protections (Razavi *et al.*, 2012). Thirdly, the effects of globalisation-driven trade liberalisation and economic restructuring have been disparate for men and women. Industries dominated by men tend to gain more from market liberalisation, while sectors traditionally staffed by women may experience heightened competition, resulting in job losses and deteriorating working conditions (Mahembe & Odhiambo, 2013; Wacker *et al.*, 2017) Additionally, globalisation has influenced social standards and cultural dynamics (Gygli *et al.*, 2019), which can perpetuate gender disparities. As societies adjust to global influences, traditional gender roles and expectations may be either reinforced or challenged, leading to tensions and opposition to gender equality, particularly in places where patriarchal values are firmly established (Ullah & Ho, 2020; Ullah *et al.*, 2023). Previous research on economic globalisation and gender inequality highlights the existing knowledge gaps and the need for further investigation in the context of SACU countries. The findings of these studies are presented in the subsequent section.

2.3 Previous empirical research

Research on globalisation and gender inequality in SACU countries reveals knowledge gaps and the need for further investigation. In their study titled *'Decolonizing with data: The cliometric turn in African economic history'*, Fourie and Obikili (2019) found that access to global financial markets has caused excessive debt for African countries, limiting their ability to tackle female unemployment. Globalisation also meant that countries now have increased access to financial markets and global financing. These international financial institutions can indirectly shape borrowing countries' development paths (Olter, 2021), which may not align with their economic climate, hindering development (Swiss & Longhofer, 2016; Kentikelenis, 2017; Reinsberg *et al.*, 2019). Ulucak *et al.* (2019) studied the effect of financial globalisation on environmental damage in 15 emerging economies, using 1974-2016 annual data. They found that foreign capital and international stocks of assets and liabilities expand domestic financial markets in emerging economies. Globalisation thus provides more funds for environmentally friendly investments, such as renewable energy and ICT, creating employment for women in those sectors.

In a study investigating whether exposure to other cultures affects the impact of economic globalisation on gender equality, Bloom *et al.* (2016) found that while economic globalisation

opens new opportunities for women, policy adaptation to these changes requires a social demand for efforts for change. Results from a time-series-cross-sectional analysis of 152 nations from 1990–2003 confirm that without social interactions with other nations, economic globalisation does not enhance gender equality within a country. However, when the economic and social dimensions interact, they create conditions that drive favourable policy changes.

Jaffri *et al.* (2015) used time series data (1982-2012) and OLS/ARDL to study globalisation's effect on gender inequality in Pakistan's labour market. They found that globalisation (trade openness) decreased gendered labour force participation, while FDI widened the gap. Janse van Rensburg *et al.* (2020) used employer-employee matched data on South African manufacturing firms and found traders had larger gender wage gaps than non-traders. They found that South African women in exporting manufacturing firms experience bias that worsens gender wage gaps and overall wage inequality. Trading firms, which employ most of South Africa's manufacturing workers, have a gender wage gap four points higher than domestic firms. Bøler *et al.* conducted a similar study. In a 2015 study of the Norwegian manufacturing sector (1996-2010), exporting firms had higher gender wage gaps than domestic firms. The government's legislative changes on parental leave available to fathers have narrowed these gaps. These high gender wage gaps are based on women employees' perceived lack of commitment and flexibility in exporting firms.

Wacker *et al.* (2017) conducted a study utilising panel data from 80 countries from 1980 to 2005. Their findings demonstrate that openness to foreign direct investment (FDI) and trade harms women's participation in the labour market. However, the authors also note that this effect varies depending on the countries' industrialisation level. In more industrialised nations, globalisation positively influences women's participation in the labour market. Potrafke and Ursprung (2012) studied almost 100 developing countries and found that economic and social globalisation since 1970 positively impacted social institutions that reduce female subjugation and promote gender equality. Bataka (2020) observed that globalisation, including its de jure and de facto aspects, decreased gender inequality in sub-Saharan African countries from 1990-2016. Tejani and Milberg (2016) found that export growth in developing nations affects female employment differently. In some countries, export growth increases female employment, while in others, it decreases it.

Ullah *et al.* (2023) used quantitative grey literature from international databases to study globalisation's effect on gender equality indicators in different countries. The authors contend that globalisation can both advance and hinder gender equality. It can create new economic opportunities for women, such as increased ICT access, but multinationals often view women's labour as cheaper, widening gender wage gaps. The findings demonstrate a complex relationship between globalisation, migration, and gender equality, necessitating context-specific approaches to tackle gender disparities in a globalised world.

In his study examining the relationship between globalisation and economic development within the SACU member countries, de Jongh (2023), found that globalisation and economic development followed a U-shaped pattern. This suggests that the influence of globalisation on economic progress is beneficial up to a certain point, but beyond that threshold, it becomes harmful. This indicates the growing gap in access to digital resources and the significant disparity in income that globalisation has caused in these countries. Additionally, it highlights the diminishing importance of specialised skills as job markets have become more globalised. The researcher's findings imply that excessive integration in these economies does not support the creation of improved development paths. The next section describes the methodology followed in the study.

3. Research methodology

3.1 Data description

As the study focused its inquiry on the relationship between economic globalisation and gender inequality, specifically within the SACU countries, the chosen data set comprised a panel of both cross-sectional (N) and time-series (T) data points. With this, the study drew specific data for Botswana, Eswatini, Lesotho, Namibia and South Africa across various variables relating to the globalisation-gender inequality nexus. The timeframe of the investigation covered 31 years, starting from 1991 to 2021. This specific timeframe was chosen primarily due to data availability. Moreover, it allowed for better comprehension of this nexus within the wave of integration characterised by significant financial and trade exchanges across the world (Correia *et al*., 2018).

Given the number of individual countries included (N) and a total of 31 years (T), the sample consisted of 155 observations. For the purpose of the analysis a total of six variables were utilised. The main variables under investigation were measured using the female labour share of income as proxy for gender inequality levels and the KOF Swiss Economic Institute (2023) economic globalisation index. In addition to this, four control variables were also used. Here, an education index was used to capture the dynamics of human capital, real gross domestic product (GDP) per capita as a measure for levels of economic growth, an institutional quality index as well as the unemployment rate to reflect the influence of labour market outcomes within this nexus. Data were sourced from various institutions including the World Bank (2023) world development indictors (WDI) database, the United Nations (UN) (2023), the World Inequality Database (WID) (2023), world governance indicators database and the International Labour Organisation (ILO) (2023). Table 1 below provides a summary of these variables, their description and overview of their measurement.

Table 1: Variable description (*Source:* Authors' own construction)

Variable	**Measurement**	**Source**
Female share of labour income (FSLI)	Expressed as a percentage from 0 to 100. Higher value indicates a more equal share of female share of labour income.	WDI (2023)
Economic globalisation (ECG)	Accounting for both aspects related to trade and financial globalisation. Index value between 0 – 100. Higher values are indicative of greater levels of integration.	KOF Swiss Economic Institute (2023)
Human capital (HC)	UN education index, sub-index of HDI. Values range from 0 – 100 with higher values proxied for higher levels of human capital.	UN (2023)
Log of real GDP per capita (LGDP)	The natural logarithm of real GDP per capita measured in US dollars ($).	World Bank (2023)
Institutional quality index (INSQ)	Geometric aggregation of five normalised individual variables from the WGI database. Includes variables pertaining to rule of law, political stability, government effectiveness, control of corruption and regulatory quality. Values range from 0 – 100 with higher values indicating better quality of institutions.	World Bank (2023)
Unemployment rate (UR)	ILO strict unemployment rate. Higher values are indicative of higher percentage of labour force unable to obtain employment.	ILO (2023)

3.2 Preliminary analysis

By carrying out the analysis, the study provides a descriptive overview of the data utilised. This includes an overview of the mean scores, standard deviations as well as maximum and minimum values. Subsequent to this, several pre-estimation techniques were employed with the purpose to ensure that the correct analysis techniques were selected and that their assumptions were checked. The first of these analyses pertained the inclusion of tests for cross-sectional dependence. Here both the Pesaran (2004) CD test and Breusch and Pagan (1980) LM tests were utilised. The need for these analyses, comes on the back of an acknowledgement within panel data literature, that countries have increasingly shown strong interdependencies to specific shocks or impulses as the world has become more interconnected through the forces of globalisation (Chudik & Pesaran, 2013). In this respect, Phillips and Sul (2003) acknowledge that failure to account for these characteristics and erroneously assuming cross-sectional independence, can result in spurious results through a loss of estimation efficiency, biased standard errors and distortion in size outcomes. In estimating the LM based test statistic, equation 1 below is used:

$$CD_{LM} = \sqrt{\frac{1}{N(N-1)} \sum_{I=1}^{N-1} \sum_{j=i+1}^{N} (T\hat{\rho}_{ij}^2 - 1))} \quad \text{.....(1)}$$

Whilst estimating the CD test statistic in this manner provides notable insight, it its regarded as highly susceptible to large size distortions. To overcome this, the study additionally employed the Pesaran's (2004) CD test as indicated below in equation 2:

$$CD = \sqrt{\frac{2T}{N(N-1)} \sum_{I=1}^{N-1} \sum_{j=i+1}^{N} \hat{\rho}_{ij}^2} \quad \text{..... (2)}$$

In both instances, $\hat{\rho}_{ij}$ represents the sample estimate of the pair wise correlation of the residuals. The only difference between equation is that, based on the manner of its derivation it can accommodate different variable lengths (Hsiao *et al.*, 2012). Following on from this, the analysis ensued by identifying the stationarity properties of the concerned variables. Whilst these find their origin within time series analyses, Baltagi (2005) is of the opinion that as panel studies have progressed with the inclusion of larger time observations (T) and cross-sectional units (N), the use of panel unit root testing has significantly assisted by overcoming notable risks. In this respect, the study ensued by utilising two 2nd generation unit root tests, including both the cross-sectionally augmented Dickey Fuller (CADF) and the Im-Pesaran-Shin (CIPS) tests. The inclusion of these 2nd generation procedures over conventional tests, comes on the inability of the latter to account for possible cross-correlations across residuals of the panel units (Hurlin & Mignon, 2006). Their application within panel data sets that exhibit cross-sectional dependency, could result in considerable size distortions and low power (Yigit, 2003). Whilst the CIPS test, is considered superior, considering that it takes account of the average of individual CADF values (Baltagi *et al.,* 2012), both test the null hypothesis of a panel unit root. Test statistics for the CIPS test is calculated using equation 3 below:

$$y_{it} = \rho_i + \gamma_{it} X_{it} + \emptyset_{it} \quad \text{..... (3)}$$

where i and t represent the country and time periods respectively, γ_{it} and σ_{it} are indicative of the slopes and residuals that need to be estimated. In this respect, equation 3 shows the relationship between γ_{it} and the nuisance parameters as reflected by ρ_i.

As the final step in the pre-estimation analysis, the study tested for the presence of heterogeneity in the panel. This was done to ascertain whether the parameter exhibits a homogenous or heterogenous slope. This was motivated on the basis of various shortcomings in the selection of conventional panel estimation techniques. Primary among these is the fact that these estimators (fixed, pooled, and random effects) assume slope homogeneity (. In other words, they fail to account for the unique characteristics that distinguish countries from another. As a result, the inability to account for their heterogeneity can result in spurious results (Pesaran & Smith, 1995). On this basis, the study made use of the slope homogeneity test as developed by Pesaran and Yamagata (2008) intending to inform estimator selection. The tests derive two test statistics a delta and delta adjusted version, with the latter augmented to accommodate for normally distributed errors. Test statistics are calculated on the basis of equations 4 and 5 below:

$$\hat{\Delta} = \frac{1}{\sqrt{N}}\left(\frac{\sum_{i=1}^{N}\tilde{d}_i - k_2}{\sqrt{2k_2}}\right) \quad \text{.....(4)}$$

Given that the test is built around a comparison of distance between derived pooled effects coefficients and coefficients for a cross-sectional unit-specific regression, $\tilde{d}_i$ is indicative of the weighted difference between these coefficients. The inclusion of the term in this manner allows for the control of possible heteroscedasticity in the residuals. Much similar to this manner the adjusted test statistic can be calculated as shown in equation 5.

$$\tilde{\Delta}_{adj} = \frac{1}{\sqrt{N}}\left(\frac{\sum_{i=1}^{N}\tilde{d}_i - k_2}{\sqrt{Var(\tilde{z}_i T_i)}}\right) \quad \text{.....(5)}$$

By using both these test statistics, the analysis ensures that any cross-sectional correlations which can distort the results are accounted for (Bersvendsen & Ditzen, 2021).

3.3 Econometric technique and model specification

After concluding the pre-estimation tests, possible long-run relationships were identified through the application of two cointegration tests. The first included the use of Pedroni's (2004) test, which makes use of seven test-statistics grouped between two categories. The first considers group-mean statistics, which reflect tests based on the average test statistics of the respective cross-sectional units (Neal, 2014). The second basis is its calculations of the pooled statistics along the within-dimension. In testing for possible long-run relationships, both parametric (ρ,t) and non-parametric (ADF,ν) test statistics are utilised (Baltagi, 2013). All tests are residual based, though it is only partially robust in the presence of heterogeneity given its considerations of primarily common cross-correlations through time.

In light of this shortcoming, additionally, Westerlund's (2007) cointegration test was utilised. In comparison to the Pedroni's (2004) residual test, the test focuses on structural dynamics without imposing any common factor restrictions. It does this based on testing the null hypothesis of no cointegration through error correction-based models and determining if the error correction term (ECT) is equal to zero (Persyn & Westerlund, 2008). Doing so, affords the advantage of accommodating unit specific short run dynamics, slope parameters, and cross-sectional dependence (Westerlund, 2007). Similar to the Pedroni's (2004) test though it also categorises its derived test statistics into two broad categories. The first withholds tests that test the alternative hypothesis where the panel as a whole is cointegrated (panel tests). In contrast, the second includes testing the alternative that at least one unit is cointegrated (group tests). The estimation of the ECT is done through the model shown below:

$$\Delta y_{it} = \hat{\delta}_i \hat{d}_t + \hat{\hat{\alpha}}_i y_{i,t-1} + \hat{\sigma}_i x_{i,t-1} + \sum_{j=1}^{\rho_i} \hat{\alpha}_{ij} \Delta y_{i,t-j} + \sum_{j=1}^{\rho_i} \hat{\sigma}_{ij} \Delta x_{i,t-j} + \hat{e}_{it} \quad \text{.....(6)}$$

here, $\hat{\hat{\alpha}}_i$ refers to the error correction term, which is indicative of the speed of adjustment back to equilibrium after specific impulses. Moreover d_t refers to the deterministic component and $\hat{\delta}_i = (\hat{\delta}_{1i}, \hat{\delta}_{2i})$ indicative of the vector of parameters.

After the application of these tests, the study finally ensued with the analysis of the long run elasticity relationships. In doing so, it made use of Chudik and Pesaran's (2015) dynamic common correlated effect (DCCE) estimator. The use of this specific estimator over traditional techniques was driven primarily based on the ability of the former, to accommodate unobserved common factors relating to the dependence of the cross-sectional units (Chudik *et al.,* 2015). Where conventional estimators such as OLS, fixed or random effects and GMM estimators only engender changes in the intercept of the cross-sectional units (slope homogeneity), DCCE estimation includes the means and lags of these cross-sections to overcome this problem. Moreover, according to Kapetanios *et al.* (2011) the estimation likewise has the advantage to account for possible structural breaks in the dataset.

In light of the time period chosen, given the political changes within the SACU region, especially over the early 1990s, the application of this specific estimation technique allays any concerns to possible misspecification due to this possible underlying characteristic within the data considered. Apart from these advantages, Ditzen (2018) alludes to the fact, that the estimation does not make use of maximum likelihood estimations, which allows for the fitting of models with endogenous independent variables. As a result, it deals directly with any spurious results that are due to the problem of endogeneity. Based on these advantages, the following model was specified:

$$FSLI_{it} = \partial_i FSLI_{it-1} + \beta_i Z_{it} + \sum_{p=0}^{P_T} \gamma_{zip} \bar{Z}_{t-p} + \sum_{P=0}^{P_T} \gamma_{yip} \bar{Z}_{t-p} + \mu_{it} \quad \text{.....(7)}$$

Here FSLI is indicative of the female share of labour income, whilst its lag is a dependent variable. Meanwhile Z_{it} shows a vector of independent variables, whilst the lag of the cross-sectional averages is represented by P_T. In order to ensure the robustness of the results, the study likewise employed Eberhardt and Teal's (2010) augmented mean group estimator (AMG). Much like the DCCE estimation, this estimator also accounts for the CSD (Bond & Eberhardt, 2013). It does by modelling for the inclusion of an error term that encompasses country-specific time-invariant fixed effects, white noise and unobserved common factor with factor loadings. The latter is especially important as it accommodates any time-invariant heterogeneity inherent within the data.

As the final procedure in the analysis, the study set out to determine the existence of any causal relationships between the variables. Given, the possibility of at least one cointegrated (long run) relationship, Engel and Granger (1987) argue that the presence of at least one-way causality is highly likely. The identification of these relationships holds special relevance for policymakers, as it can provide pivotal information to aid strategy formulation. To this end, the study makes use of the Dumitrescu and Herlin (2012) causality test, an extended Granger type model, to capture the causal dynamics between the variables. Much like the included analysis procedures, the test does accommodate for the presence of CSD and heterogeneity within the panel (Lopez & Weber, 2017). In this respect, by testing for causality, it sets the null hypothesis with the underlining assumption of a non-homogenous causality of one variable to the next.

4. Results and discussion

4.1 Descriptive analysis

The descriptive measures for the variables under consideration in this particular modelling approach are presented in Table 2; it provides estimates for SACU as a customs union to which it reports the maximum, minimum, and standard deviation scores. Results calculated from the data used, shows that on average SACU countries, over the course of the last 40 years, have on average maintained FSLI scores of 34.702. In this regard, the value is notably low, reflecting somewhat concerning picture regarding gender income inequality. Even when considering the maximum score of 40.120 (reported for Botswana in 2021), performance in this respect shows that females have earned considerably lower labour income shares when compared to their male counterparts. In general wage polarisation and wage decoupling has been a contemporary concern for the customs union (Ratshitanga & van Leggelo-Padilla, 2022). Driven by a more capital, skilled and technologically induced orientated production, disparities on income levels have reflected significant growth differentials between high and low-skilled wages (World Bank, 2022). Unfortunately, statistics from Table 2 suggest that females have borne the brunt of these dynamics.

Table 2: Descriptive statistics

Variable	Mean	Std. dev	Max	Min	Obs
FSLI	34.702	3.199	40.120	26.880	155
ECG	51.928	6.005	62.805	29.387	155
HC	54.179	11.259	78.728	35.547	155
GDP	8350.927	3880.596	16308.090	2227.274	155
UR	20.783	3.063	29.806	15.880	155
INSTQ	53.744	8.134	69.961	39.3166	155

Source: Authors' own construction

Further from the table, the mean score for economic globalisation is just above the measure's mid-point threshold. This is in line with the idea that compared to other regions, SACU is still considered relatively less integrated into the global economy (Moyo & Chikwanha, 2022). Though from the minimum value (29.387 for South Africa in 1991) the results do suggest that the customs union has made considerable progress since much of its political and economic transition in the early 1990s. In fact, the maximum score (62.805) was recorded for the same country in 2020. In this respect the increased levels of integration can be attributed largely to the shift from a protectionist development agenda to embracing the adoption of more neoliberal policies. During this timeframe, member countries experienced notable liberalisation of their trade and financial accounts, driven likewise by the removal of sanctions on the South African hegemon at the time and the demand for the region's rich mineral and commodity resources (Manwa & Wijeweera, 2016).

Upon review of some of the underlying control variables, HC levels, shows an average score of 54.179. So too has this modest score been reflected in the levels of institutional quality. Considering levels of income and economic growth, much like other SSA members, the mean score for GDP levels, reflects a regional economic community (REC), that has been characterised as upper middle income. It is important to note that somewhat considerable

differences within these members exist. Whilst larger and more diversified economies, such as South Africa and Botswana have shown relatively higher standards of living, smaller member states (Lesotho, Namibia, Eswatini) have attributed much smaller economies (World Bank, 2023). Nonetheless, all member states, have struggled to progress to higher income levels, and have stagnated over the course of the last decade. This has come on the face of an over reliance of their nature resources to facilitate higher growth trajectories, and the exposure of significant busts and booms periods for commodity demand (Farole, 2016). This has resulted in most members currently facing middle income growth traps, and the initial phases of a premature deindustrialisation (Andreoni & Tregenna, 2021). This has inadvertently contributed to arguably the area where the customs union has struggled most. As shown in Table 2, on average unemployment rates have exceeded the 20 percent threshold, which is considered amongst the highest in the world.

Labour market processes in this regard have continuously been marred by both demand and supply side challenges. For the former, in addition to the fact that growth has been persistently low, it has also been largely non-inclusive as a services-led structural change has favoured a small group of highly skilled individuals in the population (Bhorat *et al.,* 2018). From this perspective, demand has been driven by the need for a more-skilled workforce (Wöcke & Barnard, 2021). However, on the supply side, the influx of new labour force participants has not been able to satisfy these requirements, and significant demand and supply mismatches have ensued. Considering these dynamics,

4.2 Cross-sectional dependence

After the descriptive overview, the analysis is to proceed with the estimation to understand the nature and impact of economic globalisation on economic gender income inequality. Although, prior to this, various properties of the variables under consideration must be identified to ensure the adequacy of the specific estimation technique employed. In doing so, the first step in the procedure was to determine whether the variables under consideration were cross-sectionally dependent. In other words, these tests were conducted to determine whether or not changes in the variables for members of the customs union were dependent on the changes in another member. In doing so, two tests, namely the Breusch and Pagan (1980) LM test and Pesaran CD tests were utilised. Results for these tests are reported in Table 3.

Table 3: Results for cross-sectional dependence

Variable	Breush and Pagan (1980) LM		Pesaran (2004) CD	
	t-statistic	p-value	t-statistic	p-value
FSLI	239.316***	0.000	15.436***	0.000
ECG	103.886***	0.000	7.837***	0.000
HC	229.201***	0.000	15.020***	0.000
LGDP	255.793***	0.000	15.961***	0.000
UR	24.77587***	0.0058	1.646143*	0.0997
INSTQ	58.15536***	0.0000	2.881827***	0.0040

*Note: ***; * indicative of significance at 1% level and 10% level respectively.*

Source: Authors' own construction

Considering the estimates from the table, it is quite clear that for all the respective variables (FSLI, ECG, HC, LGDP and INSTQ), the null hypothesis (cross-sectional independence) could be rejected. Across both tests, for five of the six variables under consideration, estimated test statistics attributed probability values below 0.01. For levels of unemployment, the LM test likewise attributed a probability value below 0.01 though on the CD test, the calculated probability value was 0.09 indicating the rejection of the null hypothesis at a 10% significance level. On this basis, it could be concluded that levels of female share of labour income, economic globalisation, human capital, economic growth, unemployment, and institutional quality in one member depended on the movements of these aspects in at least one other member within the customs union.

4.3 Unit root tests

The implication of the aforementioned results is quite considerable. As explained in the previous section, given that the asymptotic results of all first-generation panel unit root tests rely on the assumption of cross-sectional independence, these were rendered less reliable. As a result, second-generation panel unit root tests were employed to determine stationarity levels. Results for both the CADF and CIPS tests are reported in Table 4 below.

Table 4: 2nd generation unit root test results

Variable	CIPS				CADF				Result
	Level	Level (trend)	First diff.	First diff. (trend)	Level	Level (trend)	First diff.	First diff. (trend)	
FSLI	2.438	2.303	-3.748***	-4.111***	-2.129	-2.578	-2.411**	-2.915*	I(1)
ECG	-1.952	-2.457	-4.958***	-4.880***	-1.728	-2.649	-3.057***	-3.148***	I(1)
HC	-2.135	-2.042	-3.190***	-3.917***	-1.893	-2.688	-1.927	-3.650***	I(1)
LGDP	-1.729	-1.910	-5.548***	-5.559***	-1.608	-1.694	-2.745**	-2.931*	I(1)
UR	-1.854	-2.357	-4.609***	-4.790***	-1.448	-1.829	-1.804	-3.163***	I(1)
INSTQ	-2.176	-2.482	-5.881***	-5.965***	-2.168	-2.627	-3.664***	-3.545***	I(1)

*Note: ***; ** and * indicative of significance at 1% level, 5% level and 10% level respectively.*

Source: Authors' own construction

Based on the results shown in the table, it is evident that the test statistics for both tests support the fact that included variables were stationary at first difference. More specifically, results here show the rejection of the null hypothesis (unit root) at first order at least at the 5 percent significance level.

4.4 Slope homogeneity tests

After these preliminary results, the final step in the pre-estimation analysis was to test for slope homogeneity in the model to be estimated, given that it does withhold important implications in using specific estimation techniques. For this, the delta test was utilised, as developed by Pesaran and Yamagata (2008) and Blomquist and Westerlund (2013). Results for both are reported in Table 7 below. Here both test statistics (delt and adjusted delta) and probability

values seem to reject the assumption of homogenous slope coefficients at the one per cent significance level. This would suggest the presence of strong country heterogeneity (in the long run) for the variables under consideration.

Table 5: Slope homogeneity results

Model	Test statistic	Value	p-value
FSLI = f(ECG, HC, LGDP, UR, INSTQ)	*Delta ($\bar{\Delta}$)*	3.478***	0.001
	Delta adjusted ($\bar{\Delta}_{adj.}$)	3.952***	0.000

*Note: ***; ** and * indicative of significance at 1%l, 5% and 10% level respectively.*

Source: Authors' own construction

More importantly, based on the estimates from Table 5 and the aforementioned unit root and cross-dependency tests, it does confirm the need for estimation techniques that can accommodate both cross-sectional dependence and country specific heterogeneity towards identifying any considerable long impact of economic globalisation on gender inequality levels within the SACU region.

4.5 Cointegration testing

Two cointegration tests were conducted for the initial part of the estimation to identify whether there was a long-run relationship between economic globalisation and gender income inequality. Table 6 shows the results of the first test, the Pedroni test for cointegration. The test provides four within-dimension (panel) test statistics and three between-dimension (group) test statistics, allowing for country heterogeneity in the long run. From the seven tests, reported the results from four of the seven suggest that the variables under consideration were in fact cointegrated.

Table 6: Pedroni cointegration results

Tests	Within dimension (Panel estimates)		Between-dimension (Group estimates)	
	t-stat.	p-value	t-stat.	p-value
υ-statistic	-1.9302**	0.0268		
ρ-statistic	1.9440**	0.0259	2.8417**	0.0022
PP-statistic	0.6037	0.2730	1.3155*	0.0942
ADF-statistic	1.2773	0.1007	2.0336**	0.0210

*Note: ***; ** and * indicative of significance at 1%l, 5% and 10% level respectively.*

Source: Authors' own construction

The second test employed was the Westerlund test to support these results. Similar to the Pedroni test, the cointegration method is considered robust in the presence of slope heterogeneity whilst likewise is considered more reliable, compared to older cointegration methods, when the variables are cross-sectionally dependent (Khan *et al*., 2020). By testing

for cointegration, it utilises four structural-based tests that are not influenced by any common-factor restrictions. Results for the test are shown below in Table 7. From these results, two of the four tests returned probability values smaller than 0.01. In total six of the 11 test thus pointed to the rejection of the null hypothesis of no-cointegration, inferring the existence of a long-run relationship between the female share of labour income within the SACU region and the economic globalisation of the customs union members.

Table 7: Westerlund cointegration results

Statistic	Value	Z-value	p-value
G_t	-3.177	-2.774***	0.003
G_a	-1.278	2.797	0.997
P_t	-6.593	-2.675***	0.004
P_a	-1.667	1.679	0.953

*Note: ***; ** and * indicative of significance at 1%l, 5% and 10% level respectively.*

Source: Authors' own construction

4.6 Panel regression results

After confirming the presence of long-run dynamics between levels of economic globalisation and gender income inequality, the analysis proceeded with the estimation of the elasticity relationships between the variables. Table 8 below shows the results for both the DCCE estimation and the robustness results from the AMG estimation. Upon review of the main findings, the dynamic modelling (including the lagged value of the dependent variable) does provide evidence that female share of labour income is notably affected by its past values. In fact, the positive coefficient (*coeff. = 0.306*) and p-value (0.000) both suggest a statistically significant and positive impact on current levels of the variable. This result resonates with the findings of others (UN, 2014; Women Deliver, 2019), which does point to a momentum effect in the greater income equality. In this sense, greater shares of labour income for the cohort does have the potential to increase the future female generations' wellbeing even further. This can be ascribed to the more altruistic nature of the cohorts' consumption patterns, possibly reflected in furthering educational investments (Falk & Hermle, 2018). Moreover, considering the geographical context of the study, this can also be attributed to consequential changes in reducing gender stereotypes and cultural norms within the customs union.

Though whilst these findings pointed to the influence of the cohort's own domestic factors, the influence of the customs union external environment was evidenced on the basis of the results pertaining to the level of economic integration. As the main focus of the study, calculated long run elasticities from both the DCCE and AMG estimation, point to a positive and statistically significant (at the 5% level) relationship with higher share of female labour income. Coefficients in this respect from the estimations suggest that a one unit increase in the ECG index attributes between 0.033 to 0.081 percent increase in the share of labour income accrued to female labour within the customs union. The positive influence here is notable sharing insights from the results of others (Asongu *et al.,* 2020). One hand, the gains for the cohort can be attributed to the general advantages which higher levels of trade and foreign investment has brought with it. Sheri *et al.* (2019) in this respect suggest that greater economic integration has provided the customs union members with notable advances through knowledge transfers, promoting infrastructure improvements and the development of sound

financial and service sectors. The latter has shown notable potential in the uptake of women into the labour market.

Other possible transmission channels in which these dynamics unfold, as alluded to in the literature review can be attributed to the erosion of specific gender and cultural stereotypes (Zvisinei & Julie, 2018). der Boghossain (2019) in this respect, explains that as countries, seeks to remain internationally competitive and attract significant levels of foreign investment, complying with the standards and goals of international institutions (which can include the promotion of gender equality and furthering education and training of females) can induce positive change.

Table 8: Panel regression results

Variable	*DCCE results*				*AMG results*			
	Coeff.	***Std. error***	***Z-stat.***	***Sig. value***	***Coeff.***	***Std. error***	***Z-stat.***	***Sig. value***
L.FSLI	0.306***	0.059	5.12	0.000				
ECG	0.033**	0.021	2.07	0.038	0.081**	0.0372	2.13	0.033
HC	0.070**	0.034	2.04	0.041	0.148**	0.073	2.02	0.044
LGDP	2.189	1.839	1.19	0.234	3.183***	0.745	4.27	0.000
UR	-0.032	0.065	-0.50	0.618	-0.097	0.117	-0.83	0.406
INSTQ	-0.018	0.014	-1.28	0.200	-0.037	0.028	-1.30	0.194
C	11.036	13.648	-0.84	0.419	56.174***	5.728	9.81	0.000
R-squared = 0.47; Root MSE = 0.39 *CD-statistic = -0.60; p-value = 0.550*					*Wald χ^2 = 28.30; Sig-value = 0.000*			

*Note: ***; ** and * indicative of significance at 1% level, 5% level and 10% level respectively.*

Source: Authors' own construction

Apart from these insights, other pertinent findings from the control variables as shown in Table 8 likewise attributed notable insights. Amongst these, the significance of higher levels of human capital within economic globalisation and gender income inequality nexus were especially evident. Here, results from Table 8 seem to support the a priori expectations that higher skill levels for the female cohort, would induce more equal income distribution outcomes when compared to their male counterparts. In fact, from the main estimation, the estimated coefficient suggests a one unit increase in the HC index, induces a 0.070 percent increase in the FSLI, *ceteris paribus*. Robustness checks from the AMG estimator also supported the positive and statistically significant (at the 5% level) relationship. Considering the globalised context in which this relationship unfolds, higher skill levels have shown to extract significant premiums within particular high value added GVC activity (World Bank, 2022). As such in this respect, this finding does point to the importance of public policy to ensure equitable access especially for women to quality education institutions if it wants to address gender disparities. For SACU counties, which in general have struggled with this particular hurdle (Sekhosana, 2021), these strategic considerations should be prioritised.

Much like these positive results, findings in relation to the impact of the logarithm of real GDP per capita, point to a highly elastic relationship. For the main estimation in this respect, findings infer a consequential 2.189 percent increase in the FSLI for a one percent increase in economic growth levels. The sensitivity of the relationship is also confirmed by the AMG results. Though whilst the main estimation fails to reject the null hypothesis (*coeff. = 0*), the AMG findings contradict this, inferring the significance of this impact at a one percent significance level. This finding is in line with those reported by Bertray *et al.* (2020) which highlights the importance of ensuring that economic growth should be all inclusive. Finally, upon review of the results for both the influence of the unemployment rate as well as the levels of institutional quality, the direction of the impact, for the former seems to be in line with the extant literature (Francis, 2020; Workneh, 2020). Though for the latter, the negative relationship is somewhat surprising. Though in both the DCCE results and findings from the AMG estimation the sig. values (p-value > 0.1) fail to reject the null hypothesis (*coeff. = 0*) even at the 10 percent significance level.

4.7 Causality testing

Following the regression analysis, the Dumitrescu-Hurlin panel causality analysis was performed. This was done after confirming co-integration relationships which inferred the potential of underlining causal effects (Granger, 1988). The purpose of conducting this analysis lies in the value of the identification of possible causal linkages, especially for policymakers. Results for the analysis is presented in Table 9 below. From the estimates calculated, notable bidirectional and uni-directional relationships are identified. Relating to the former, most notable among several of the bidirectional relationships, are the causal dynamics that were confirmed between FSLI and HC as well ECG and HC. Within these findings, important considerations are noted. The first imparts the important role of women in economic structures. Whilst their participation is crucial towards ensuring a more egalitarian society, the fact that changes in their share of labour income imparts changes on human capital levels and vice versa highlights the additional benefits for higher levels of participation in key educational structures that can withhold further benefits for wider economic development.

This also then withholds important consequences for the manner in which the customs union integrates economically. Here the findings from Table 9, which points to the causal impulses from ECG and HC on one another, must be acknowledged. As key economic processes such as the formation of trade relationships and the influx of FDI becomes increasingly interconnected, policy considerations in respect of ensuring the greater involvement of the cohort in for example export orientated industries can be considered. In doing so, the requirement of higher order skill sets is crucial, especially if higher value-added participation is the objective.

Table 9: Results of Dumitrescu-Hurlin panel causality test

Variable	FSLI	ECG	HC	LGDP	UR	INSTQ
FSLI	-----	2.166** (0.030)	3.691*** (0.000)	1.043 (0.296)	29.830*** (0.000)	3.911*** (0.000)
ECG	-0.226 (0.821)	-----	1.982** (0.047)	3.496*** (0.000)	0.923 (0.355)	0.846 (0.397)
HC	5.495*** (0.000)	2.973*** (0.002)	-----	17.150*** (0.000)	5.229*** (0.000)	6.865*** (0.000)

Variable	FSLI	ECG	HC	LGDP	UR	INSTQ
LGDP	9.303*** (0.000)	1.194 (0.232)	14.630*** (0.000)	-----	2.196** (0.028)	21.417*** (0.000)
UR	4.307*** (0.000)	4.025*** (0.000)	5.972*** (0.000)	1.244 (0.213)	-----	16.935 (0.000)***
INSTQ	0.554 (0.579)	0.697 (0.485)	6.703*** (0.000)	0.085 (0.932)	-0.253 (0.800)	-----

*Note: ***; ** and * indicative of significance at 1% level, 5% level and 10% level respectively.*

Source: Authors' own construction

In contrast, further uni-directional causalities were confirmed (shown in Table 9) emanating most notably from LGDP to levels of FSLI as well as those impulses from FSLI which transmits to changes in levels of economic integration for SACU countries. The former further extends the relevance of the findings from the regression results. This is also evident in the latter. If SACU is to successfully ensure better involvement in the global economic framework, gender income equality seems to be pertinent lever in facilitating just his. As such, policy makers from the REC should prioritise resources and the needed political will to envisage the benefits that integration has to offer.

5. Conclusion and recommendations

In retrospect of the findings both from a theoretical and empirical perspective, the study has shown, through its main objective, the relevance and importance of considering the economic globalisation and gender income inequality nexus. In its investigation of these dynamics within SACU, the results showcase the benefits that economic integration does withhold towards ensuring a more inclusive gendered environment and the consequential equal distribution of income this withholds. Though from the insights gained, the complexity in which this relationship unfolds must also be considered. Globalisation in this respect has shown to act as a double sword. Whilst it holds specific advantages it can most likely also induce additional pressures for wider socio-economic environments, not only so for national considerations but so too wider regional communities. From this the findings point to mostly the former. As a lever to facilitate structural change, it has the potential to induce the participation of specific cohorts that have struggled to actively do so. For women in this respect, the benefits have been particularly reflected in the knowledge spillovers, promotion of infrastructure development and the advancement of specific sectors that have shown significant potential in facilitating the economic uptake of the group. Moreover, through the liberalisation of exchanges, the study highlights the power of integration to erode specific cultural and social norms that have acted as noteworthy barriers to the empowerment of women.

Whilst the aforementioned provides a more in-depth understanding of the impulses from the external environment, so too did the study underline the significance of the unique characteristics of the females as key economic agents within the globalised context. From this their altruistic nature in consumption, and the associated momentum effects of their inclusion in these integrated economic exchanges especially came to the fore. Considering the aforementioned, the study provides specific and yet somewhat novel insight, specifically considering the focus on SACU as a key REC in SSA. Considering the motivation for the formation of these RECs where members have struggled to facilitate higher development trajectories, the study on one hand shows the importance of placing the cohort as key pillar in their holistic development agenda. On the other, it does also place the spotlight on the needed

requirements from the perspective of the intricacies of economic globalisation to ensure that their potential as economic agents are realised. Taking this into consideration, it is therefore recommended that policies aimed at reducing gender inequality within the customs union consider the broader economic and social context in which economic globalisation is embedded. Strategies must promote gender-sensitive trade practices and improve women's education and training in preparation for employment in export-oriented sectors. Moreover, policymakers should prioritise attracting investments that enable the cohort and their communities while improving women-owned businesses' participation in global value chains.

Reference list

AISBETT, E.; HARRISON, A.E.; LEVINE, D.; SCORSE, J. and SILVER, J. (2019). *Do MNCs exploit foreign workers?* Washington, D.C.: Brookings Institution.

ALSHUBIRI, F.; JAMIL, S.A. and ELHEDDAD, M. (2019). The impact of ICT on financial development: empirical evidence from the Gulf Cooperation Council countries. *International Journal of Engineering Business Management, Vol.* 2, No. 1, pp. 1-14.

ANDREONI, A. and TREGENNA, F. 2021. The middle-income trap and premature deindustrialization in South Africa. In: Andreoni, A., Mondliwa, P., Roberts, S. & Tregenna, F. eds. *Structural transformation in South Africa: the challenges of inclusive industrial development in a middle-income country*. Oxford: Oxford University Press. pp. 237-260.

ANIČIĆ, D. and NESTOROVIĆ, O. (2020). Globalisation's influence on the competitiveness of national economy. *Journal of Process Management and New Technologies*, Vol. 8, No. 1, pp. 12-17.

ANUKOONWATTAKA, W. and HEAL, A. (2014). *Regional integration and labour mobility: linking trade, migration and development*. New York, NY: United Nations Publication.

AROMOLARAN, O. and OLEBOGENG, D.D. (2021). Macroeconomic policy directions in the Southern African Customs Union. *International Journal of Economics and Finance*, Vol. 13, No. 2, pp. 327-360.

ASANTE, G.N. and STANLEY, A. (2022). *Prospect of economic unions on intra-regional trade in Africa*. (In: Amin, A.A., Tawah, R.N., Ntembe, A. eds. *Monetary and financial systems in Africa.* London: Palgrave Macmillan).

ASONGU, S.A., EFOBI, U.R., TANANKEM, B.V. and OSABUOHIEN, E.S. 2020. Globalisation and female economic participation in sub-Saharan Africa. *Gender Issues*, Vol. 37, No. 1, pp. 61-89.

BALEYTE, J.; GETHIN, A.; GOVIND, Y. and PIKETTY, T. (2020). *Social inequalities and the politicization of ethnic cleavages in Botswana, Ghana, Nigeria, and Senegal, 1999-2019*. https://halshs.archivesouvertes.fr/halshs-03022210/document Date of access: 20/05/2023.

BALTAGI, B. H. 2005. *Econometric analysis of panel data*. 3rd ed. New York: John Wiley & Sons Inc.

BALTAGI, B. H., FENG, Q. and KAO, C. 2012. A Lagrange multiplier test for cross-sectional dependence in a fixed effects panel data model. *Journal of Econometrics,* Vol. 170, no. 1, pp. 164–17.

BATAKA, H. (2020). Globalisation and Gender Inequalities in Sub-Saharan Africa. *The International Trade Journal,* Vol. 34, No. 6, pp. 516-534. DOI:10.1080/08853908.2020.1774448

BEKKERS, E., KOOPMAN, R., SABBADINI, G. and TEH, R. (2021). *The impact of digital technologies on developing countries' trade.* (In: Smeets, M. ed. Adapting to the digital trade era: challenges and opportunities. Geneva: World Trade Organisation. pp. 36-53).

BEN-NUN BLOOM, P. (2016). State-Level Restriction of Religious Freedom and Women's Rights: A Global Analysis. *Political Studies,* Vol. 64, No. 4, pp. 832–853. https://doi.org/10.1111/1467-9248.12212

BEN-NUN BLOOM, P.; GILAD, S. and FREEDMAN, M. (2017). Does exposure to other cultures affect the impact of economic globalisation on gender equality? *International Political Science Review,* Vol. 38, No. 3, pp. 378–395. https://doi.org/10.1177/0192512116644358

BERSVENDSEN, T. and DITZEN, J. 2021. Testing for slope heterogeneity in Stata. *The Stata Journal*, Vol. 21, No. 1, pp. 51-80.

BHORAT, H., STEENKAMP, F., ROONEY, C., KACHINGWE, N. and LEES, A. 2018. Understanding and characterizing the services sector in South Africa: an overview. *DPRU working paper no. 2018/03.* Cape Town: Development Policy Research Unit.

BICKLEY, S.J.; CHAN, H.F.; SKALI, A.; STADELMANN, D. and TORGLER, B. (2021). How does globalisation affect COVID-19 responses? *Globalisation and Health*, Vol. 17, No. 1, pp. 1-19.

BLAAUW, L. (2007). *Transcending state-centrism: new regionalism and the future of Southern African regional integration.* Grahamstown: Rhodes University. (Thesis – PhD).

BØLER, E.S. and SMARZYNSKA, J.B. and ULLTVEIT-MOE, K.H. (2015). Globalisation: A Woman's Best Friend? Exporters and the Gender Wage Gap. *CEPR Discussion Paper No. DP10475*. https://ssrn.com/abstract=2575779 Date of access: 06/06/2023.

BOND, S. and EBERHARDT, M. 2013. Cross-section dependence in nonstationary panel models: a novel estimator. https://lezme.github.io/markuseberhardt/BEMC.pdf Date of access: 13 May 2023.

BRONER, F. and VENTURA, J. (2016). Rethinking the effects of financial globalisation. *The Quarterly Journal of Economics*, Vol. 131, No. 3, pp. 1497-1542.

ÇAĞATA, N. and ERTÜRK, K. (2004). Gender and globalisation: a macroeconomic perspective. *ILO Working Paper No. 19.* International Labour Office, Geneva.

CHUDIK, A. and PESARAN, M.H. 2013. Large panel data models with cross-sectional dependence: a survey. *CESifo working paper no. 4371.* Munich: Center for Economic Studies.

CHUDIK, A. and PESARAN, M.H. 2015. Common correlated effects estimation of heterogeneous dynamic panel data models with weakly exogenous regressors. *Journal of Econometrics*, Vol. 188, No. 2, pp. 393-420.

CHUDIK, A., MOHADDES, K., PESARAN, M.H. and RAISSI, M. 2015. Is there a debt-threshold effect on output growth? *Review of Economics and Statistics*, Vol. 99, No. 1, pp. 1-58.

CORREIA, F., ERFURTH, P. and BRYHN, J. 2018. The 2030 agenda: the roadmap to globalizaton. *DESA working paper no. 156*. New York, NY: United Nations Department of Economic and Social Affairs.

DE JONGH, J.J. (2023). *The globalisation-economic development nexus in the SACU member countries.* North-West University, South Africa. (Thesis – PhD). Unpublished.

DER BOGHOSSIAN, A. 2019. Trade policies supporting women's economic empowerment: trends in WTO members. *Staff working papers no. ERSD 2019/07*. Geneva: World Trade Organisation.

DEVEREUX, M.B. & YU, C. (2020). International financial integration and crisis contagion. *The Review of Economic Studies, Vol.* 87, No. 3, pp. 1174-1212.

DITZEN, J. 2018. Estimating dynamic common-correlated effects in Stata. *The Stata Journal*, Vol. 18, No. 3, pp. 585-617.

DUMITRESCU, E.I. and HURLIN, C. 2012. Testing for Granger non-causality in heterogeneous panels. *Economic Modelling*, Vol. 29, No. 4, pp. 1450-1460.

EASTIN, J. & PRAKASH, A. (2013). Economic Development and Gender Equality: Is there a gender Kuznets curve? *World Politics,* Vol. 65, No. 1, pp. 156–186.

EBERHARDT, M., and TEAL, F. 2010. Productivity analysis in global manufacturing production. *Discussion paper no. 515,* Department of Economics, University of Oxford.

ENGEL, J.; KOKAS, D.; LOPEZ-ACEVEDO, G. and MALISZEWSKA, M. (2021). The distributional impacts of trade: empirical innovations, analytical tools and policy responses. Washington, D.C: World Bank.

FALK, A. and HERMLE, J. 2018. Relationship of gender differences in preferences to economic development and gender equality. *Science*, Vol. 362, No. 6412, pp. 1-7

FAROLE, T. 2016. Factory Southern Africa? SACU in global value chains: summary report. *World Bank working paper no. 102850*. Washington, D.C.: World Bank.

FATIMA, S.; CHEN, B.; RAMZAN, M. and ABBAS, Q. (2020). The nexus between trade openness and GDP growth: analyzing the role of human capital accumulation. *Sage Open*, Vol. 10, No. 4, pp. 1-18.

FOURIE, J. and OBIKILI, N. 2019. Decolonizing with data: the cliometric turn in African economic history. *Handbook of Cliometrics*, Vol. 1, pp. 1721-1745.

FRANCIS D. 2020. Unemployment and the gendered economy in South Africa after Covid-19. Transformation: *Critical Perspectives on Southern Africa*, Vol. 104, No. 1, pp. 103-12.

GORYAKIN, Y.; LOBSTEIN, T.; JAMES, W.P.T. and SUHRCKE, M. (2015). The impact of economic, political and social globalisation on overweight and obesity in the 56 low- and middle-income countries. *Social Science & Medicine*, Vol. 133, No. 1, pp. 67-76.

GRĘBOSZ, M. and HAK, A. (2015). Multidimensional character of globalisation. *Zeszyty Naukowe Politechniki Lodzkiej,* Vol. 1196, No. 59, pp. 69-82.

GULOTTY, R. (2014). *Governing trade beyond tariffs: the politics of multinational production and its implications for international cooperation*. Stanford, CA: Stanford University. (Thesis – PhD).

GYGLI, S.; HAELG, F.; POTRAFKE, N. and STURM, J.E. (2019). The KOF globalisation index–revisited. *The Review of International Organizations*, Vol. 14, No. 3, pp. 543-574.

HARTMANN, D.; BEZERRA, M.; LODOLO, B. and PINHEIRO, F.L. (2020). International trade, development traps, and the core-periphery structure of income inequality. *Economiá,* Vol. 21, No. 2, pp. 255-278.

HEIMBERGER, P. (2020). Does economic globalisation affect income inequality? A meta-analysis. *The World Economy*, Vol. 2020, No. 43, pp. 2960-2982.

HUH, H.S. and PARK, C.Y. (2021). A new index of globalisation: measuring impacts of integration on economic growth and income inequality. *The World Economy*, Vol. 44, No. 2, pp. 409-443.

HURLIN, C. and MIGNON, V. 2006. *Second generation panel unit root tests.* https://halshs.archives-ouvertes.fr/halshs-00159842/document Date of access: 12 Aug. 2022.

ILO (INTERNATIONAL LABOUR ORGANISATION). 2023. *Data catalogue.* https://ilostat.ilo.org/data/ Date of access: 12 Jun. 2022.

INTERNATIONAL MONETARY FUND. (2008). Globalisation: a brief overview. *IMF issues brief no. 02/08*. Washington, D.C.: International Monetary Fund.

JAFFRI, A.A.; SANA, M. and ASJED, R. (2015). Impact of globalisation on gender inequality in the labour market of Pakistan. *Pakistan Economic and Social Review,* Vol. 51, No. 1, pp 1-16. https://www.jstor.org/stable/26153246

JANSE VAN RENSBURG, C.; BEZUIDENHOUT, C.; MATTHEE, M. And STOLZENBURG, V. (2020). Globalisation and gender inequality: Evidence from South Africa. *SA-TIED Working Paper #131*. https://doi.org/10.35188/UNU-WIDER/2020/854-2 Date of access: 06/06/2023.

KAPETANIOS, G., PESARAN, M.H. and YAMAGATA, T. 2011. Panels with non-stationary multifactor error structures. *Journal of Econometrics*, Vol. 160, No. 2, pp. 326-348.

KENTIKELENIS, A.E. (2017). Structural adjustment and health: a conceptual framework and evidence on pathways. *Social Science & Medicine*, Vol. 187, No, 1, pp. 296-305.

KHAN, A., MUHAMMAD, F., CHENGGANG, Y., HUSSAIN, J., BANO, S. and KHAN, M.A. 2020. The impression of technological innovations and natural resources in energy-growth-environment nexus: a new look into BRICS economies. *Science of the Total Environment*, Vol. 727, No. 1, pp. 1-11.

KUMAR, M. (2022). Is the future of higher education tied to the fate of globalisation? In: Raj Kumar, C., Mukherjee, M., Belousova, T. & Nair, N. eds. *Global higher education during and beyond Covid-19*. Singapore: Springer. pp. 195-204.

LWANDA, G.C. (2013). Southern African Customs Union (SACU): a viable building block for the African economic community. *African Journal of Political Science and International Relations*, Vol. 7, No. 4, pp. 182-189.

MAHEMBE, E. and ODHIAMBO, N.M. (2013). The dynamics of foreign direct investment in SADC countries: experiences from five middle-income economies. *Problems and Perspectives in Management*, Vol. 11, No. 4, pp. 35-45.

MAKOCHEKANWA, A. and MATCHAYA, G. (2019). *Regional Trade Integration in Eastern and Southern Africa.* (In: Bouet, A. & Odjo, S.P. eds. Africa agriculture trade monitor 2019. Washington, D.C.: International Food Policy Research Institute. pp. 133-163).

MALEFANE, M.R. (2021). Investigating the core–periphery relationship in the Southern African Customs Union. *The Review of Black Political Economy, Vol 4*8, No. 2, pp. 190-205.

MANWA, F. and WIJEWEERA, A. 2016. Trade liberalisation and economic growth link: the case of Southern African custom union countries. *Economic Analysis and Policy*, Vol. 51, No. 1, pp. 12-21.

MARCHAND, M. and DOMÍNGUEZ, E. (2019) Labour and gender in a global context: contestations and backlashes, Third World Thematics: *A TWQ Journal*, Vol. 4, No.1, pp. 1-8. DOI: 10.1080/23802014.2019.1657038.

MARTORANO, B.; MERKLE, O.; HUNNS, A.; BORDON, G.; GRANJA, C.D. and IACOELLA, F. (2021). *Inequality in Botswana: an analysis of the drivers and district-level mapping of select dimensions of inequality*. Maastricht: United Nations University – Maastricht Economic and Social Research Institute on Innovation and Technology.

MOYO, T. and CHIKWANHA, A.B. 2022. African agency for development: progress, contradictions, and complexities in the era of globalisation. *International Journal of African Renaissance Studies-Multi-, Inter-and Transdisciplinarity*, Vol. 17, No. 1, pp. 21-40.

NAANWAAB, C. (2022). The impact of trade liberalization on income inequality: does the direction of trade matter? *International Economic Journal*, Vol. 36, No. 3, pp. 307-338.

OLTER, A. (2021). *Intergovernmental organisations (IGOs) as relevant actors in international relations.* https://repositorio.ulima.edu.pe/bitstream/handle/20.500.12724/13030/IGOs%20as%20relevant%20actors%20in%20International%20Relations%20Agnieszka%20Olter%20IR%20ULima%20%281%29.pdf?sequence=4 Date of access: 29/07/2023.

ORAMAH, B. and DZENE, R. (2019). Globalisation and the recent trade wars: linkages and lessons. *Global Policy*, Vol. 10, No. 3, pp. 401-404.

PAGLIARI, M.S. and HANNAN, S.A. (2017). *The volatility of capital flows in emerging markets: measures and determinants*. Washington, D.C.: International Monetary Fund.

PERSYN, D. and WESTERLUND, J. 2008. Error-correction–based cointegration tests for panel data. *The Stata Journal*, Vol. 8, No. 2, pp. 232-241.

PESARAN, M.H. 2004. General diagnostic tests for cross section dependence in panels. *IZA discussion paper no. 1240.* Bonn: Institute for the Study of Labor.

PESARAN, M.H. and YAMAGATA, T. 2008. Testing slope homogeneity in large panels. *Journal of Econometrics*, Vol. 142, No. 1, pp. 50-93.

PESARAN, MH. and SMITH, R. 1995. Estimating long-run relationships from dynamic heterogeneous panels. *Journal of Econometrics*, Vol. 68, No. 1, pp. 79-113.

POTRAFKE, N. and URSPRUNG, H.W. (2013). Globalisation and gender equality in the course of development. *European Journal of Political Economy*, Vol. 28, No. 4, pp. 399-413, https://doi.org/10.1016/j.ejpoleco.2012.04.001.

RAPOPORT, H. (2016). Migration and globalisation: What's in it for developing countries? *International Journal of Manpower,* Vol. 37, No. 7, pp. 1209-1226.

RATSHITANGA, Z. and VAN LEGGELO-PADILLA, D. 2022. *New world bank report assesses sources of inequality in five countries in Southern Africa.* Washington, D.C.: World Bank.

RAZAVI, S; ARZA, C; BRAUNSTEIN, E; COOK, S; and GOUILDING, K. (2012). Gendered Impacts of Globalisation: Employment and Social Protection. *Research Paper 2012–3.* United Nations Research Institute for Social Development.

REINSBERG, B.; KENTIKELENIS, A.; STUBBS, T. and KING, L. (2019). The world system and the hollowing out of state capacity: how structural adjustment programs affect bureaucratic quality in developing countries. *American Journal of Sociology*, Vol.124, No. 4, pp. 1222-1257.

SEKHOSANA, S. 2021. *Savings culture in South Africa.* Cape Town: University of Cape Town. (Dissertation – MCom).

SIDDIQUI, K. (2017). Globalisation, trade liberalisation and economic development in the developing countries: an overview. *Journal of Economics Library*, Vol. 4, 4, pp. 514-529.

SIDDIQUI, K. 2020. Globalisation, international trade, and the developing countries. *European Financial Review*, Vol. 1, No. 1, pp. 60-71.

SMITH, A. (1776). *An inquiry into the nature and causes of the wealth of nations. Hampshire*: Harriman House Ltd.

SOUTHERN AFRICAN CUSTOMS UNION. (2019). *Southern African Customs Union insights.: a 15-year journey from 2004 – 2019*. Windhoek: SACU secretariat.

SOUTHERN AFRICAN CUSTOMS UNION. (2022). *Strategic plan for the Southern African customs union 2022 – 2027*. Windhoek: SACU secretariat.

STUURMAN, Z. (2020). Citizens of Southern African Customs Union hold mixed views on free trade and open borders. *Afrobarometer dispatch no. 411*. Accra: Afrobarometer.

SWISS, L. and LONGHOFER, W. (2016). Membership has its privileges: shared international organizational affiliation and foreign aid flows, 1978–2010. *Social Forces*, Vol. 94, No. 4, pp. 1769-1793.

THIBANE, T.A. and WAIT, C.V.R. (2017). Revisiting the origins of globalisation: a comparative study between the drivers of globalisation during the earlier and current period. *ESSA Working Paper No. 3335*. Pretoria: Economic Society of South Africa.

ULLAH, A. and HO, H. (2020). Globalisation and Cultures in Southeast Asia: Demise, Fragmentation, Transformation. *Global Society*, pp. 1-16.

ULLAH, A.; ALKAFF, S.N.; LEE, S.C.; CHATTORAJ, D. and FERDOUS, J. (2023). Globalisation and Migration: The Great Gender Equalizer? *Journal of International Women's Studies*, Vol. 25, No. 3, Article 2. https://vc.bridgew.edu/jiws/vol25/iss3/2

ULUCAK, Z.S.; İLKAY, S.Ç.;ÖZCAN, B. and GEDIKLI, A. (2020). Financial globalisation and environmental degradation nexus: Evidence from emerging economies. *Resources Policy.* Vol. 67, 101698, https://doi.org/10.1016/j.resourpol.2020.101698.

UN (UNITED NATIONS). 2023. *UN data: a world of information.* http://data.un.org/ Date of access: 12 Jan. 2023.

UNCTAD. (2022). *Making trade work better for women after crises: A Q&A with UNCTAD deputy Pedro Manuel Moreno*. https://unctad.org/news/making-trade-work-better-women-after-crises-qa-unctad-deputy-pedro-manuel-moreno Date of access: 25/05/2023.

UNITED NATIONS DEVELOPMENT PROGRAMME. (2021). *Regional human development report 2021: trapped in inequality and low growth in Latin America and the Caribbean.* New York, NY: United Nations Development Programme.

UNITED NATIONS. (2020b). *The sustainable development goals report 2020*. New York, NY: United Nations.

VERICK, S. (2014). *Female labour force participation in developing countries.* https://wol.iza.org/uploads/articles/87/pdfs/female-labour-force-participation-in-developing-countries.pdf Date of access: 12/05/2022.

WACKER, K. M.; COORAY, A. and GADDIS, I. (2017). *Globalisation and Female Labor Force Participation in Developing Countries: An Empirical (Re-) Assessment.* (In: Christensen B., Kowalczyk C. (eds), Globalisation, 545–583. Berlin, Heidelberg: Springer) https://doi.org/10.1007/978-3-662-49502-5_2

WESTERLUND, J. 2007. Testing for error correction in panel data. *Oxford Bulletin of Economics and statistics*, Vol. 69, No. 6, pp. 709-748.

WID (WORLD INEQUALITY DATABASE). 2023. *World inequality database*. https://wid.world/data/ Date of access: 25 May. 2023.

WÖCKE, A. and BARNARD, H. 2021. Turnover in South Africa: the effect of history. In: Allen, D.G. & Vardaman, J.M. eds. *Global talent retention: understanding employee turnover around the world.* Bingley: Emerald Publishing Limited. pp. 239-259.

WORKNEH, M.A. 2020. Gender inequality, governance, and poverty in sub-Saharan Africa. *Poverty & Public Policy*, Vol 12, No. 2, pp. 150-74.

WORLD BANK and WORLD TRADE ORGANIZATION. (2020). Women and Trade: The Role of Trade in Promoting Gender Equality. © Washington, DC: World Bank. http://hdl.handle.net/10986/34140

WORLD BANK. (2022). *Inequality in Southern Africa: an assessment of the Southern African Customs Union*. Washington, D.C.: World Bank.

WORLD BANK. (2023). *World development indicators.* https://databank.worldbank.org/source/worlddevelopment-indicators Date of access: 12/01/2023.

WORLD TRADE ORGANISATION. (2021). *World trade report 2021: economic resilience and trade*. Geneva: World Trade Organisation

ZAJDA, J. and JACOB, W.J. (2022). *Discourses of globalisation and higher education reforms: emerging paradigms*. London: Springer.

ZULU, N. (2019). Inequality of opportunities in education in Eswatini. *ESEPARC working paper no. 010/SZL*. Mbabane: Eswatini Economic Policy Analysis and Research Centre.

ZVISINEI, M. and JULIET P. 2018. Globalisation and experiences of Zimbabwean female migrant teachers. *Journal of Educational Studies*. Vol. 17, No. 1, pp. 76-93.