economies

MDPI

Article

Can Remittance Promote Tourism Income and Inclusive Gender Employment? Function of Migration in the South African Economy

Sandra Makwembere [1,*], Paul Acha-Anyi [1], Abiola John Asaleye [2,*] and Rufaro Garidzirai [2]

[1] Faculty of Management and Public Administration Sciences, Walter Sisulu University, Butterworth Campus, Gcuwa 4960, South Africa; pacha-anyi@wsu.ac.za
[2] Faculty of Economic and Financial Sciences, Walter Sisulu University, Mthatha Campus, Mthatha 5099, South Africa; rgaridzirai@wsu.ac.za
* Correspondence: smakwembere@wsu.ac.za (S.M.); aasaleye@wsu.ac.za (A.J.A.)

Abstract: With globalisation and international trade, remittances and migration significantly influence economic activities, yet their impact on tourism income and gender-specific employment remains under-researched. This study uses autoregressive distributed lags and Granger causality to examine the effects of remittances and migration on tourism income and employment in South Africa. Three models are established as follows: for aggregate employment, male employment, and female employment, each with equations for tourism income and employment. Key findings from this study indicate that remittances significantly drive tourism income in both the short and long run across all models. Conversely, employment negatively impacts tourism income, hinting at sectoral trade-offs. Migration positively affects tourism income in the short run for male and aggregate models but is insignificant for female employment. Remittances boost male employment in both the short and long run, whereas their impact on female employment is significant only in the long run. Causality analysis shows a bidirectional relationship among employment indicators, with unidirectional causality from remittances to migration and from migration to income. This study recommends policies to support remittance inflows and their productive use in tourism, along with targeted interventions to reduce gender disparities in employment and promote equitable economic opportunities.

Keywords: tourism income; remittance; migration; employment; gender inclusive

Citation: Makwembere, Sandra, Paul Acha-Anyi, Abiola John Asaleye, and Rufaro Garidzirai. 2024. Can Remittance Promote Tourism Income and Inclusive Gender Employment? Function of Migration in the South African Economy. *Economies* 12: 162. https://doi.org/10.3390/economies12070162

Academic Editors: Marina-Selini Katsaiti, Maroula Khraiche and Mrittika Shamsuddin

Received: 2 May 2024
Revised: 18 June 2024
Accepted: 21 June 2024
Published: 26 June 2024

1. Introduction

One of the central topics in the migration debate is the belief that remittances from migrant workers may be tapped by developing countries to achieve sustainable development. This subject has been advocated by international financial organisations, including the International Monetary Fund and World Bank, that promote economic globalisation and the liberalisation of state government migration laws (CARAM Asia 2010). However, the usage of remittances in achieving growth and development depends on how remittances are used in the economy (Sobiech 2019). Compared with other financial flows, remittances are sent directly to the recipient's family, possibly resulting in a more equitable allocation of resources than foreign direct investment and aid, and they tend to be less unpredictable when compared with other foreign flows (Hamed 2022). Likewise, the link between labour supply and income has been established theoretically by the Classical, Neoclassical, and Keynesian schools of thought (Bortis 2023). Arguments have also been put forth that migration can influence income and employment in the empirical literature (Alderotti et al. 2023; Bossavie and Özden 2023; Diodato et al. 2023). Migration can indirectly affect income by influencing labour markets in both sending and receiving communities. The influx of migrants into a particular region can stimulate economic growth, leading to higher demand

for goods and services, which, in turn, can create more job opportunities and increase incomes for both migrants and native-born residents (Alderotti et al. 2023; Bossavie and Özden 2023). On the other hand, migration can sometimes put downward pressure on wages, especially in industries where migrants are concentrated, raising worries about wage cuts and competition for jobs among home workers (Diodato et al. 2023).

Remittances and immigration usually follow a clear pattern. People relocate for better economic opportunities, find work, and transfer money back to their country of origin. Beyond the conventional roles of remittance and migration providing financial support and demographic shifts, they can help increase tourism income and promote inclusive gender employment in developing countries (Ferdous 2024; Cucovic et al. 2023). As a nation improves the tourism industry, it may have a positive effect on economic development; the nexus among remittance, migration, and tourism income can be a determining factor in achieving this goal (Tabash et al. 2023). Remittances may be channelled into investments that promote tourism infrastructure and services.

Similarly, migration patterns influence tourist flows, as diaspora communities attract visitors to their countries of origin and encourage a continuous income flow through familial ties and cultural exchange. The multiplier effects of remittance and migration may extend to gender empowerment and employment (Matz and Mbaye 2023). Remittances to low- and middle-income countries grew by 3.8 per cent in 2023 (Ratha et al. 2023). Remittance inflows to South Africa have increased because of a rise in migration; they increased by 3.5 per cent in 2022 and reached USD 872.9 million in 2023 (World Bank 2023). Also, the tourism industry continues to improve the well-being of millions of individuals by promoting economic growth, providing employment, and eliminating poverty (Wood 2007; Xuanming et al. 2024). For the eighth year, industry growth outpaces the global economy, demonstrating the sector's persistence in the face of international political instability and economic shocks. In 2019, the industry provided USD 8.9 trillion to the world economy (10.3 per cent of world GDP) and created 330 million jobs (one out of every ten on the globe) (Stellenbosch Business School 2023).

On the other hand, over 50 per cent (51.1 per cent) of South Africans are women. Additionally, two-fifths (42 per cent) of families are led by women. Women in South Africa are far more likely to be jobless than males, and they are far less inclined to engage in the employment market (Statistics South Africa 2024). From the preceding, this study investigates the effect of remittance and migration on tourism income and gender employment in South Africa. The following four reasons justified this study's motivation: (i) its alignment with the United Nations Sustainable Development Goals; (ii) issues relating to COVID-19 impacts on tourism, income per capita, and employment; (iii) the ability to promote inclusive growth; and finally, (iv) the gap identified in the literature.

Firstly, using remittances to boost tourist income is connected to SDG 8 (Decent Work and Economic Growth); it can help create job opportunities in the tourism sector, and the revenue generated may assist in promoting growth and development (Bernardo et al. 2023). Also, encouraging inclusive gender employment within the structure above is consistent with SDG 5 (gender equality), which seeks to promote equitable access to economic opportunities for men and women in the labour market. Likewise, promoting economic empowerment through remittances and tourism can indirectly assist SDG 1 (No Poverty) and SDG 10 (Reduced Inequalities) by pulling communities out of poverty and decreasing economic gaps. Economic and social sustainability studies have stressed how the labour market for souvenir production and tourism sales supports livelihoods, alleviates poverty, and addresses job quality per SDG8 and gender equality (Sousa et al. 2022; Asaleye et al. 2017). Secondly, the COVID-19 pandemic caused a global decline in international tourist arrivals, resulting in a significant loss of income for the tourism sector (World Tourism Organization 2021); this decline has led to widespread job losses and business closures within the industry. As a result of this effect, women's employment has been affected mostly compared with the males, leading to higher rates of unemployment and underemployment among women. Women constitute a portion of the tourism workforce, particularly

in service-oriented roles such as accommodation, food services, and retail (International Labour Organisation 2022). In South Africa, the tourism sector contributed about 3 per cent of GDP in 2018, accounting for around 4.5 per cent of total employment. As of 2020, the number of tourists fell by 72.6 per cent, from 10.2 million in 2019 to 2.8 million. In 2019, the tourist sector directly contributed 3.7% of GDP, surpassing agriculture, construction, and utilities. In 2020, the direct contribution of the tourist sector fell to 2.2 per cent. Given the circumstances of the pandemic that witnessed economic activity plunge in most economic sectors, tourism lost ground to even the smallest industries. As tourist spending fell and economic activity stagnated, so did the total amount of direct tourism employment. The reduction in employment number was more than 320,000 in 2020, dropping from 780,096 in 2019 to 459,533 in 2020 (Statistics South Africa 2022).

Thirdly, this empirical study can help to achieve inclusive growth in the South African economy. Remittances from migrant workers play an important role in augmenting household incomes and facilitating greater participation in tourism-related activities, both as consumers and entrepreneurs, especially among marginalised communities (Khan 2024; Chowdhury et al. 2023). Moreover, as mentioned earlier, remittances may be invested in tourism infrastructure, which may enhance the attractiveness of destinations and create a platform for inclusive gender employment (World Travel and Tourism Council 2024); this, in the long run, may provide opportunities for women in hospitality and tour guiding (International Labour Organisation 2022). The Department of National Treasury (2023) has stressed the need for inclusive growth. According to the report, reforms are needed to pave the way for inclusive economic growth and development to fulfil the constitution's objective, as highlighted by the South African government. Growth without considering inclusive growth will merely worsen the inequitable economic patterns inherited from the past. Reforms that do not include inclusive growth will be limited and unsustainable (Asaleye et al. 2023b). Lastly, studies have worked on migration and remittance (Rahman et al. 2023; Santos 2023; King and Vullnetari 2010) but our study can be distinguished from the previous studies by examining the effect of migration and remittance on tourism income and gender employment.

From the preceding, the main objective of this study is to examine the impact of remittances and migration on tourism income and employment in South Africa. The research questions are as follows:

i. What are the short- and long-run effects of remittances and migration on aggregate employment?
ii. What are the short- and long-term effects of remittances and migration on tourism income?
iii. What are the short- and long-term effects of remittances and migration on gender-specific employment?
iv. What is the causal relationship among remittances, migration, employment, and tourism income?

2. Literature Review

2.1. Review of Studies Regarding Remittance, Tourism, and Employment

Remittances have been recognised in the economic literature as a significant source of income for recipient households, potentially leading to increased consumer spending and economic activity (Wang et al. 2021). Remittances can act as a form of income transfer that boosts the purchasing power of households, thereby stimulating demand for goods and services, including those in the tourism sector (Kim et al. 2024); this additional income may contribute to higher levels of tourism expenditure, as families may allocate a portion of remittance funds towards travel, accommodation, and recreational activities, bolstering tourism income. Theoretically, the New Economics of Labour Migration (NELM) theory suggests that migration is an individual decision and a family strategy to maximise income and diversify sources of risk; this migration pattern can influence tourism income, as migrants often promote tourism in their home countries, either through direct visits or by

encouraging others to visit (Stark and Bloom 1985; Williams and Hall 2000). Nevertheless, the NELM connects migration, remittance growth, and the labour market (Russell 1986). Wage disparities among countries are not required for migration decisions in the model, which may be limited in applications but have implications on income and employment outcomes. However, migration is viewed as a way to expand a family's alternate sources of income through remittance.

Consequently, the Harris–Todaro migration model also explains migration with remittances but does not economically benefit non-migrant family members (Todaro and Smith 2003). However, the study by Adams and Page (2005) posits that remittances may play a crucial role in stabilising and growing economies as their source of foreign exchange. Remittances increase household disposable income, which can be spent on various goods and services, including tourism (Adams and Page 2005); this increased spending can stimulate the local tourism industry by creating demand for tourism services and products, eventually leading to higher tourism income.

Regarding gender-specific employment in the tourism sector, the Feminist Economics perspective emphasises the importance of understanding how remittances and migration impact male and female labour participation differently (Scogin 2024; Kabeer 2000); this perspective shows that women and men experience the benefits and burdens of migration and remittances in difference ways, which can lead to varying outcomes in their participation in the tourism labour market. Studies have shown that remittances can empower women by providing them with financial resources, but they can also increase their domestic responsibilities if male family members migrate (Chant 1998; Kabeer 2000; Posel 2004). Conversely, men may benefit from employment opportunities through migration than women, but they may not experience the same level of empowerment as women receiving remittances (Posel 2004; Chant 1998). The importance of remittances in promoting women's empowerment is also stressed by Pfeiffer et al. (2008). According to these scholars, remittances may provide women with financial resources that enhance their economic independence and allow them to invest in education and entrepreneurial ventures (Pfeiffer et al. 2008). As women gain financial independence, their labour participation will increase, increasing aggregate welfare, including in the tourism sector, thus promoting inclusive gender employment.

Empirically, the relationship between remittances and tourism income has been examined. Hossain (2020) investigate the impact of remittances on economic activities in Malaysia. The study involved in-depth interviews with 20 first-cycle and repeat-cycle migrants from Madhupur Village, Bangladesh. Hossain (2020) found a distinct difference in the impact of social remittances on economic activities between these two groups. Social remittances did not affect the economic activities of first-cycle migrants, whereas the economic activities of repeat-cycle migrants were somewhat influenced. A study by Noushad et al. (2022) examines recent trends, changing patterns, and determinants of low-skilled emigration from India to the Gulf Cooperation Council. It also investigates the developmental impacts of remittances in India. Noushad et al.'s (2022) study finds that the Indian diaspora is growing globally, shifting from less-developed Asian regions to more advanced areas in North America, Europe, and Oceania. In India, states with lower levels of development and well-being tend to have higher rates of low-skilled emigration, which decreases as the state advances. Poverty and unemployment are major drivers of low-skilled emigration in India. According to Noushad et al. (2022), remittances do not directly impact GDP growth; they significantly influence development and well-being.

Tabash et al. (2023) use the Fixed Effect Model and Fully Modified Ordinary Least Squares technique to study the relationship among tourism, remittances, and foreign investment in selected Asian countries. Their findings indicate that international tourism activities positively and significantly impact GDP growth rates and GDP per capita. Tabash et al. (2023) recommend that governments and host countries prioritise tourism activities and focus on tourism operations' dynamic role, importance, and sensitivity.

More so, Mora-Rivera and García-Mora (2021) provide evidence from Mexico using Probit and Tobit regressions with instrumental variables. Mora-Rivera and García-Mora (2021) demonstrate that international migrants' remittances can enhance domestic tourism expenditures among Mexican households. Mora-Rivera and García-Mora (2021) suggest that international remittances help alleviate the liquidity constraints that limit access to tourism activities for recipient households. Also, Cohen et al. (2012) indicate that during economic downturns, remittances can help sustain household consumption, including spending on domestic tourism, supporting the tourism sector even during financial instability. Pfeiffer et al. (2008) emphasise that remittances can enhance women's economic independence, allowing them to participate more fully in the labour market, including tourism. King and Vullnetari (2010) report the impact of remittances on gender roles in Albania, showing how increased financial resources from remittances can shift traditional gender norms and promote greater gender equality in employment. As women become more financially independent, they are more likely to pursue employment opportunities in various sectors, contributing to a more inclusive economy. From the preceding, numerous studies have examined the connection among remittance, tourism, and employment. Some studies focus on micro-analysis (e.g., Hossain 2020; Mora-Rivera and García-Mora 2021), while others employ panel studies (e.g., Tabash et al. 2023). Additionally, some studies limit their analysis to growth (e.g., Noushad et al. 2022; Tabash et al. 2023). Research on the implications of remittance on tourism income and employment is still developing.

2.2. Review of Studies Regarding Migration, Tourism, and Inclusive Employment

Theoretically, the Human Capital Theory shows the connection between migration and employment (Becker 1964). According to this theory, migration involves transferring skills, knowledge, and experiences from migrants to their home countries. In this process, the migrants often acquire new skills abroad, which can be moved back home, benefiting the local economy and increasing employment opportunities (Becker 1964). Likewise, when remittances gained through migration processes are invested in education and skill development, they enhance human capital, indirectly benefiting sectors such as tourism. The increase in human capital can lead to improved service quality and the creation of new tourism-related businesses, thereby boosting tourism income (Docquier and Rapoport 2012).

Empirically, Privarova et al. (2022) examine the relationship between migration and tourism in European countries. Privarova et al.'s (2022) study indicates that migration and labour migration play crucial roles in international tourism and the labour market. Immigration positively impacts both the tourism sector and the labour market. In contrast, emigration negatively affects these areas, primarily because of the potential "brain drain" in the countries of origin. According to Privarova et al.'s (2022) findings, international tourism significantly benefits the labour market, offering substantial evidence for migration-led tourism in certain European Union member states. Another study by Hutsaliuk et al. (2020) documents that external labour migration benefits the economy through the stimulation of entrepreneurial activity among migrants, leading to the development of small and medium-sized enterprises and the generation of employment opportunities. Conversely, Hutsaliuk et al. (2020) also highlight several negative repercussions, which include the lack of profitability and potential losses associated with investments in the education and training of specialists, the emigration of highly skilled personnel, declines in birth rates, demographic ageing, increased demographic pressures on the domestic labour market, reduced tax revenues and contributions to social funds, and inflationary pressures on domestic goods and services, particularly notable in situations characterised by limited purchasing power among the majority of the population.

Dempster and Zimmer (2020) and Withers et al. (2022) investigate the impact of COVID-19 on migration and tourism. Dempster and Zimmer (2020) show that in the short term, governmental bodies and civil society must prioritise ensuring access to healthcare and social safety nets for all migrants, mitigating xenophobia, facilitating repatriations, and dismantling barriers to mobility. According to Dempster and Zimmer (2020), it is crucial to

utilise this period for a comprehensive revaluation of the operational dynamics of the tourism industry, with a particular emphasis on sustainability and improving working conditions for its key personnel. Dempster and Zimmer (2020) point out that actions should be directed towards bolstering tourism flows, especially to low-income countries. More so, Withers et al. (2022) state that the COVID-19 pandemic has disrupted the international remittance flow crucial for several South Asian economies; this disruption, termed "remittance shock", has triggered a decline in foreign exchange earnings, worsened structural unemployment, and posed a threat to the well-being of numerous low-income households. Withers et al. (2022) investigate the economic repercussions on three remittance-dependent economies including India, Nepal, and Sri Lanka. They concluded that a combination of short-term measures can be used to address the economic consequences of reduced migration and remittances, alongside long-term strategies promoting inclusive and sustainable development.

In addition, studies by Sevencan (2023), Chowdhury et al. (2023), and Mehedintu et al. (2020) focus on the relationship between remittances and economic growth. Sevencan (2023) investigates short-run and long-run behaviour among remittances, unemployment, economic growth, and human development in developing nations by applying a Vector Autoregressive Model, Fully Modified and Dynamic Ordinary Least Squares. According to Sevencan (2023), there is a causality between GDP and remittances in low-income economies in the short run. The study also reveals that the unemployment rate positively impacts the Human Development Index in the long term. While remittances significantly influence human development in low-income economies more than in other developing nations, there is no notable link between unemployment in the home country and the relationship between remittances and development in low-income countries.

Chowdhury et al. (2023) use pooled ordinary least squares, fixed effect, and random effect models to assess the overall impact of remittances on economic development. They employ the Vector Error-Correction Model and Granger causality to examine country-specific effects. Chowdhury et al.'s (2023) findings show a significantly negative impact of remittances on economic development. In Bangladesh, there is no short-term or long-term relationship between remittances and economic development; in Vietnam, there is a short-term relationship but no long-term one. In Sri Lanka, short-run causality runs from remittances to GDP per capita, and vice versa. Chowdhury et al. (2023) further note that excessive consumption and investment in unproductive sectors with transferred money negatively correlate with economic development.

More so, Mehedintu et al. (2020) analyse the effects of migration on remittances using polynomial-time regression and difference equation models. Their findings indicate a continuous rise in GDP and GDP per capita, reflecting an improved standard of living in Romania. Other indicators initially declined sharply because of the global crisis but later experienced gradual growth. Mehedintu et al. (2020) conclude that remittances have been, and remain, a relatively stable financial resource for Romania, similar to other emerging European countries, positively impacting citizens' standard of living despite a downward trend in their value. However, the study by Mehedintu et al. (2020) similarly highlights the negative aspects of remittances, such as dependency on migrant money and the emigration of skilled workers, underscoring the need for government policies to utilise remittances better. Ghani and Morgandi (2023) explore the impact of return migration on labour market outcomes, specifically, wage, consumption, and welfare outcomes for South Asian workers. Ghani and Morgandi's (2023) findings varied in labour returns depending on skill levels and industry. They note a shift in sectoral demand, with manufacturing and services experiencing increased demand compared with agriculture and primary industries.

From the preceding, while studies have examined the impact of migration and labour on the labour market (Privarova et al. 2022; Hutsaliuk et al. 2020), the focus has varied. Privarova et al. (2022) conduct a panel study analysis without addressing gender-specific employment, whereas Hutsaliuk et al. (2020) concentrate on entrepreneurial activity. Other research has explored the effects of COVID-19 on the labour market (Dempster and Zimmer 2020; Withers et al. 2022). Additionally, some studies have investigated economic growth

(Sevencan 2023; Chowdhury et al. 2023; Mehedintu et al. 2020). However, the effects of migration on tourism income and inclusive employment remain under-researched.

2.3. Gap Identified in the Empirical Literature

Despite extensive research on the effects of remittances and migration, there remain significant gaps in the empirical literature, particularly regarding their impacts on tourism income and gender-specific employment. While several studies have examined the effects of remittances on employment, there is a lack of comprehensive analysis that considers both the short- and long-run effects. The channels in which migration and remittance can affect the economy documented in the empirical literature include short-run, long-run, and causal effects (Sevencan 2023; Chowdhury et al. 2023). The existing research often focuses on specific regions or sectors, leaving a gap in understanding the short- and long-run implications for employment and tourism income (Ghani and Morgandi 2023; Noushad et al. 2022; Mora-Rivera and García-Mora 2021).

Additionally, there is a need to investigate the impacts of differential gender employment. The literature on the gender-specific effects of remittances and migration remains scarce (Rahman et al. 2023; King and Vullnetari 2010). However, some studies focused on women's employment; for example, Rahman et al.'s (2023) study investigates tourism's influence on female employment within the agricultural sector. Another study by Santos (2023) assesses the impact of the return on tourist development in rural Portugal. Our study can be distinguished from the previous studies by examining the effect of migration and remittance on tourism income and gender employment. Likewise, identifying the causal relationships among remittances, migration, employment, and tourism income is critical for effective policy formulation. The existing research, such as by Sevencan (2023) and Chowdhury et al. (2023), tends to analyse these variables but focus on growth; this study aims to fill these gaps by addressing the following research hypotheses:

i. There is no significant relationship among remittances, migration, and aggregate employment in the short and long run.
ii. There is no significant relationship among remittances, migration, and tourism income in the short and long term.
iii. There is no significant relationship among remittances, migration, and gender-specific employment in the short and long term.
iv. There is no causal relationship among remittances, migration, employment, and tourism income.

Based on the gap identified in the empirical literature and the channels of implication, this study uses the autoregressive distributed lag (ARDL) model. The ARDL model is used in this study because of its ability to handle variables integrated into different orders (I(0) and I(1)); this flexibility is crucial as the variables such as remittances, migration, employment, and tourism income may have different integration orders (Pesaran et al. 2001). Additionally, the ARDL model estimates both short- and long-run effects simultaneously, which aligns with this study's objectives to assess these impacts over different time horizons (Ogunwole et al. 2024). The model is also advantageous for small sample sizes, making it ideal for economic data from South Africa, where long-time series data might be limited (Harris and Sollis 2003). Furthermore, including lagged variables captures the dynamic relationships among remittances, migration, employment, and tourism income, providing a comprehensive understanding of these interactions (Pesaran and Shin 1995). This study also used Granger causality tests to complement the ARDL model by establishing the direction of causality among variables; this is essential for analysing the causal relationships among remittances, migration, employment, and tourism income, which is a vital objective of the study (Granger 1969). The tests identify whether one time series can predict another, clarifying the lead–lag relationships. The causal directions are crucial for policy formulation, as they inform whether interventions should focus on enhancing remittance flows to boost employment and tourism, or vice versa (Engle and Granger 1987).

Although this study uses ARDL, its analysis of the asymmetric effect is limited compared with non-linear ARDL (NARDL) (Shin et al. 2014; Niklas and Sadik-Zada 2019; Sadik-Zada and Niklas 2021; Asaleye et al. 2023b). The ARDL model is chosen for its robustness in handling small sample sizes and its ability to distinguish between short-term and long-term relationships among variables. However, ARDL assumes symmetry in the response of the dependent variable to changes in the independent variables. Future research could benefit from using NARDL, as it allows for examining potential relationship asymmetries (Shin et al. 2014).

3. Methodology

3.1. Model Specification and Estimation Techniques

Following the studies by Asaleye et al. (2023a) and Pal et al. (2022), the income equation is given as follows:

$$INC = f(REM, EMP, GFC, TRO, INT, INF, MIG) \tag{1}$$

In Equation (1), INC is tourism income. Also, REM, EMP, GFC, TRO, INT, INF, and MIG are remittances, employment, capital formation, trade openness, interest rate, inflation, and migration. Likewise, the employment equation is given as:

$$EMP = f(REM, GDP, GFC, TRO, INT, INF, MIG) \tag{2}$$

In Equation (2), all other variables are as defined previously, where EMP is employment and GDP is total output.

Explicitly, Equations (1) and (2) can be written as follows:

$$InINC_t = \alpha_0 + \alpha_1 InREM_t + \alpha_2 InEMP_t + \alpha_3 InGFC_t + \alpha_4 InTRO_t + \alpha_5 InINT_t + \alpha_6 InINF_t + \alpha_7 InMIG_t + \mu_{1t} \tag{3}$$

$$InEMP_t = \beta_0 + \beta_1 InREM_t + \beta_2 InGDP_t + \beta_3 InGFC_t + \beta_4 InTRO_t + \beta_5 InINT_t + \beta_6 InINF_t + \beta_7 InMIG_t + \mu_{2t} \tag{4}$$

Equations (3) and (4) are in logarithm form; α_0 and β_0 are intercepts or constants, respectively. Also, $\alpha_1, \alpha_2, \alpha_3, \ldots, \alpha_7$ and $\beta_1, \beta_2, \beta_3, \ldots, \beta_7$ are respective parameters for Equations (3) and (4). The respective error terms are μ_{1t} and μ_{2t}. (t) is the period of observation. For this study to achieve its objective of investigating the effects of remittance and migration on inclusive gender employment, Equations (3) and (4) are modified with the inclusion of male and female employment as follows:

$$InINC_t = \lambda_0 + \lambda_1 InREM_t + \lambda_2 InMEMP_t + \lambda_3 InGFC_t + \lambda_4 InTRO_t + \lambda_5 InINT_t + \lambda_6 InINF_t + \lambda_7 InMIG_t + \mu_{3t} \tag{5}$$

$$InMEMP_t = \chi_0 + \chi_1 InREM_t + \chi_2 InGDP_t + \chi_3 InGFC_t + \chi_4 InTRO_t + \chi_5 InINT_t + \chi_6 InINF_t + \chi_7 InMIG_t + \mu_{4t} \tag{6}$$

$$InINC_t = \phi_0 + \phi_1 InREM_t + \phi_2 InFEMP_t + \phi_3 InGFC_t + \phi_4 InTRO_t + \phi_5 InINT_t + \phi_6 InINF_t + \phi_7 InMIG_t + \mu_{5t} \tag{7}$$

$$InFEMP_t = \sigma_0 + \sigma_1 InREM_t + \sigma_2 InGDP_t + \sigma_3 InGFC_t + \sigma_4 InTRO_t + \sigma_5 InINT_t + \sigma_6 InINF_t + \sigma_7 InMIG_t + \mu_{6t} \tag{8}$$

Equations (5)–(8) are employment gender-specific equations, and λ_0, χ_0, ϕ_0, and σ_0 are the respective intercepts. Also, $\lambda_1, \lambda_2, \lambda_3, \ldots, \lambda_7$, $\chi_1, \chi_2, \chi_3, \ldots, \chi_7$, $\phi_1, \phi_2, \phi_3, \ldots, \phi_7$, and $\sigma_1, \sigma_2, \sigma_3, \ldots, \sigma_7$ are respective parameters. The hypotheses (i), (ii), and (iii) stated in the literature review were achieved by estimating Equations (3)–(8) using autoregressive distributed lags (ARDLs). The ARDL equation is given as follows:

$$\Delta A_t = b_0 + b_1 \Delta A_{t-1} + b_2 \Delta C_{t-1} + \ldots + b_n C_{t-k} + \psi(A_{t-1} - a_0 C_{t-1}) + \varepsilon_t \tag{9}$$

In Equation (9), ΔA_t is the first difference of the dependent variable and ΔC_t is the first difference of the independent variables. Likewise, ΔA_{t-1} and ΔC_{t-1} are the lags of the dependent variable and independent variables, respectively. The parameters b_0, b_1, b_2,..., b_n capture the short-run dynamics, whereas a_0 captures the long-run behaviour. The speed of adjustment to long equilibrium or error correction term is ψ, which must be negative and less than

one. The disturbance term is represented by ε_t. Firstly, the lag selection for each model was determined using the Akaike Information Criterion (AIC). The AIC is preferred to other criteria because of the sample size. According to Liew (2004), the most appropriate lag criterion for a small sample size (less than sixty population) is the AIC. The F-statistic with the bound test is used to establish the long-run relationship; when the F-statistic is above the upper bound value, there is evidence of cointegration. The presence of cointegration cannot be decided when the F-statistic is in between the lower and upper bound values. There is no cointegration when the F-statistic is below the lower bound value. Afterwards, diagnostics are carried out to determine if the models are correctly specified; this includes the stability test, histogram normality test, serial correlation test, and heteroscedasticity test. The fourth hypothesis is achieved by examining the causal relationship among the variables. Hypothesising two variables as "X" and "Y", for the variables used in this study, the equation for the causality is given as follows:

$$X_t = a_0 + \sum_{i=1}^{n} b_i X_{t-i} + \sum_{i=1}^{n} c_i Y_{t-i} + e_t \tag{10}$$

$$Y_t = d_0 + \sum_{i=1}^{n} h_i Y_{t-i} + \sum_{i=1}^{n} g_i X_{t-i} + v_t \tag{11}$$

In Equations (10) and (11), a_0 and d_0 are the intercepts. b_i and c_i are the parameters of the lagged variables in Equation (10) and h_i and g_i are the parameters of the lagged variables in Equation (11). The order of the lags is represented by "n", and the error terms are e_t and v_t. Four outcomes are possible in the causality test. Firstly, the bi-directional relationship between "X" and "Y", when c_i and g_i are statistically different from zero. Secondly, unidirectional from X to Y, when g_i is statistically different from zero and c_i equals zero. Thirdly, unidirectional from Y to X, when c_i is statistically different from zero and g_i equals zero. Finally, independence, when c_i and g_i are not statistically different from zero. Before the ARDL and causality tests, a preliminary analysis was carried out, including summary statistics of the variables and stationarity test.

3.2. Data Sources and Definition

The information about the series used in this study is provided in Table 1. The analysis covers 1991 to 2022, chosen based on data availability.

Table 1. Information about the series.

Variable	Definition	Source	Empirical Justification
INC	International tourism, receipts (current USD).	World Tourism Organization, Yearbook of Tourism Statistics, Compendium of Tourism Statistics, and data files	Dependent variable
EMP	Total employment-to-population ratio above 15 years (%). The employment-to-population ratio represents the proportion of a country's employed population.	International Labour Organization (ILO)	Dependent variable
MEMP	Male employment-to-population ratio, above 15 years (%).	International Labour Organization (ILO)	Dependent variable
FEMP	Female employment-to-population ratio above 15 years (%).	International Labour Organization (ILO)	Dependent variable
REM	Personal remittances received (percentage of GDP). Personal remittances include employee remuneration as well as personal transfers.	World Bank and OECD National Accounts data	Mora-Rivera and García-Mora (2021); Amuedo-Dorantes and Pozo (2006)

Table 1. *Cont.*

Variable	Definition	Source	Empirical Justification
MIG	Net migration. Net migration is the net total of migrants over time, which is the number of immigrants minus the number of emigrants, including both citizens and noncitizens.	United Nations Population	Salazar (2022); Oliinyk et al. (2021)
GFC	Gross fixed capital formation (USD). Gross fixed capital formation includes land improvements, machinery, equipment, and other fixed assets purchased.	World Bank and OECD National Accounts data	Seetanah and Fauzel (2023); Bailey et al. (1980)
TRO	Trade openness. Summation of imports and exports divided by GDP.	World Bank and OECD National Accounts data	Hussain (2023); Asaleye et al. (2021)
INT	Interest payments include interest payments on government debt—including long-term bonds, loans, and other debt instruments.	International Monetary Fund (IMF)	Kumar et al. (2020); Conard (2023)
INF	Inflation, consumer prices (annual percentage). Inflation is calculated using the consumer price index. It is the annual percentage change in the cost to the average consumer of obtaining a basket of goods and services that may be fixed or modified at regular intervals, such as annually.	IMF	Khalid et al. (2020); Ghosh (2022)
GDP	GDP (USD). GDP is the total gross value contributed by all resident producers in the economy, plus any product taxes minus any subsidies not included in the product value.	World Bank and OECD National Accounts data	Akkemik (2007); Asaleye and Strydom (2023)

Source: Authors' computation.

3.3. Empirical Justification

This study investigates the effects of migration and remittances on employment, with a particular focus on gender-specific employment and tourism income in South Africa. Migration is a proxy using net migration, which accounts for immigration and emigration, as detailed in Table 1. The population inflows and outflows are essential for a comprehensive understanding of migration's economic impacts. Remittances are measured through personal remittances, including employee compensation and personal transfers. The analysis centres on international tourism income reflected in tourism receipts. Two equations are estimated in this study including the income equation and the employment equation. The employment analysis is conducted in three stages as follows: the aggregate employment equation, the male employment equation, and the female employment equation. This study incorporates respective control variables based on their relevance in the empirical literature, including investment in capital formation (proxied by gross fixed capital formation), trade openness, inflation, and interest rates, as shown in Table 1. The following studies justify the inclusion of the variables in the tourism income equation: Hussain (2023), Khalid et al. (2020), Ghosh (2022), Seetanah and Fauzel (2023), Kumar et al. (2020), Salazar (2022), and Mora-Rivera and García-Mora (2021). The employment equation is supported by Asaleye et al. (2021), Holland (1986), Bailey et al. (1980), Amuedo-Dorantes and Pozo (2006), Oliinyk et al. (2021), Conard (2023), Akkemik (2007), and Asaleye and Strydom (2023).

This study uses trade openness to capture the effect of external forces. Trade openness refers to the extent to which a country or region engages in and depends on international trade. It was initially defined as the degree of reliance on foreign trade (Ding et al. 2022); this study computes trade openness as the summation of import and export divided by the GDP following the approach used in the empirical literature (Dorn et al. 2022; Ding et al. 2022). Exchange rate pass-through (ERPT) describes how changes in exchange rates influence domestic prices of imported goods and services; this occurs through channels like producer currency pricing, local currency pricing, and pass-through of imported inputs (Campa and Goldberg 2005). ERPT varies across countries and over time because of factors like exchange rate flexibility and the share of imports in the economy (Gopinath and Itskhoki 2010). ERPT often pass through to inflation (Choudhri and Hakura 2006). The exchange rate was not included as a control variable. This study included inflation because of its

ability to serve as a crucial determinant in employment and tourism income models (Khalid et al. 2020; Ghosh 2022). High inflation may lead to higher nominal wages and impact labour demand while also affecting investment decisions and overall economic growth (Baxa et al. 2015). Similarly, inflation influences tourism income through its impact on exchange rates and domestic demand, making it essential to include it in tourism income models (Gopinath and Itskhoki 2010).

The choice of type of interest rate is subjective in econometric modelling, particularly in structure dynamics and macroeconomic variables (Ang and Piazzesi 2003; Sims 2002; Hamilton 1996; Oladipo et al. 2019). This study advocates its focus on interest payments as a mechanism to influence employment and tourism income; it is imperative to consider the broader macroeconomic implications, particularly concerning inflation changes over time (Roubini and Backus 1998; Ascari and Sbordone 2014). While real interest rates are traditionally used as a monetary policy tool to manage inflation, controlling for inflation reveals a relationship between interest rates and employment outcomes (Blanchard and Fischer 1989). High inflation can pressure borrowers, reducing their purchasing power and making it increasingly challenging to meet debt obligations (Romer 2019). By reducing interest payments, policymakers can provide immediate relief to borrowers, mitigating the adverse effects of inflation on employment stability (Krugman and Wells 2015); this approach stresses the importance of addressing inflation and interest payments in this regard, creating collaborative effects that contribute to growth and employment creation. Furthermore, by stabilising inflation expectations and reducing uncertainty, policymakers can promote a conducive investment and employment expansion environment, resulting in overall economic stability and social welfare (including improvement in tourism income) (Bernanke 2007). The information and empirical justification for the series are presented in Table 1.

4. Results and Discussion

This section presents the preliminary analyses and the ARDL results.

4.1. Preliminary Analyses

Table 2 shows the descriptive statistics and correlation analysis. Evidence from the results indicates that GDP has the highest mean value, which stands at 11.406, and REM has the lowest mean value, with a figure of −0.759. The mean values for EMP, FEMP, GFC, INC, INF, INT, MEMP, MIG, and TRO are 1.666, 1.590, 10.617, 3.707, 0.756, 10.822, 1.739, 1.104, and −0.309, respectively. The standard deviation of the variables is as follows: EMP (0.030), FEMP (0.020), GDP (0.195), GFC (0.218), INC (0.155), INF (0.246), INT (0.349), MEMP (0.044), MIG (4.721), REM (0.225), and TRO (0.076). The correlation value among the variables is less than 70 per cent except for the value between EMP and FEMP, EMP and MEMP, FEMP and MEMP, and MEMP and TRO. The employment variables EMP, FEMP, and MEMP were analysed using different models. The correlation analysis's outcome did not show a suspicion of multicollinearity in the models.

Table 2. Descriptive statistics and correlation analysis.

Descriptive Statistics											
	EMP	**FEMP**	**GDP**	**GFC**	**INC**	**INF**	**INT**	**MEMP**	**MIG**	**REM**	**TRO**
Mean	1.666	1.590	11.406	10.617	3.707	0.756	10.822	1.739	1.104	−0.759	−0.309
Median	1.683	1.591	11.491	10.696	3.765	0.760	10.722	1.750	4.462	−0.661	−0.296
Maximum	1.701	1.615	11.661	10.912	3.941	1.186	11.439	1.801	5.809	−0.583	−0.180
Minimum	1.598	1.539	11.111	10.258	3.433	−0.159	10.159	1.656	5.938	−1.338	−0.464
Std. Dev.	0.030	0.020	0.195	0.218	0.155	0.246	0.349	0.044	4.721	0.225	0.076
Obs.	32	32	32	32	32	32	32	32	32	32	32

Table 2. *Cont.*

Correlation Analysis											
	EMP	**FEMP**	**GDP**	**GFC**	**INC**	**INF**	**INT**	**MEMP**	**MIG**	**REM**	**TRO**
EMP	1										
FEMP	0.839	1									
GDP	−0.637	−0.510	1								
GFC	−0.641	−0.408	0.577	1							
INC	−0.571	−0.465	0.588	0.585	1						
INF	0.273	−0.017	−0.401	−0.316	−0.383	1					
INT	−0.500	−0.604	0.599	0.593	0.599	−0.372	1				
MEMP	0.981	0.722	−0.695	−0.612	−0.528	0.346	−0.533	1			
MIG	−0.515	−0.223	0.646	0.643	0.649	−0.358	0.425	−0.591	1		
REM	−0.598	−0.170	0.654	0.635	0.597	−0.430	0.661	−0.404	0.606	1	
TRO	−0.687	−0.257	0.576	0.461	0.614	−0.276	0.589	−0.785	0.595	0.690	1

Source: Authors' computation.

Table 3 presents the unit root result of the variables; two stationarity approaches were used, the augmented dickey fuller (ADF) and the Phillips–Perron (PP). In the ADF outcome, all series are integrated of order one except INF and REM, which are stationary at the level, including intercept only and intercept and trend, respectively. The PP outcomes show similar results to the ADF, except that INF is stationary at the level with the inclusion of intercept and trend. Based on the outcomes, it is concluded that the variables used in this study are integrated of order one and zero; this helps to choose the ARDL estimation above other approaches for long-run analysis.

Table 3. Unit root test results.

Augmented Dickey–Fuller					
Series	**Intercept**	**Intercept and Trend**	**Intercept**	**Intercept and Trend**	**Outcome**
EMP	−0.412378	−2.693399	−5.933623 [a]	−5.958939 [a]	I (1)
FEMP	−1.425455	−2.478500	−6.953803 [a]	−7.268046 [a]	I (1)
GDP	−1.085364	−1.531260	−4.277876 [a]	−4.214286 [b]	I (1)
GFC	−1.298102	−1.709010	−3.815344 [a]	−3.779060 [b]	I (1)
INC	−1.196646	−1.523480	−4.244978 [a]	−4.178725 [b]	I (1)
INF	−3.586754 [b]	−3.156653	-	−5.511453 [a]	Mixture
INT	−0.378242	−1.922408	−3.833158 [a]	−2.781295 [a]	I (1)
MEMP	−0.163729	−2.588724	−4.818894 [a]	−4.750256 [a]	I (1)
MIG	−2.146534	−3.214603	−5.280396 [a]	−5.171313 [a]	I (1)
REM	−2.238917	−4.514115 [a]	−3.532436 [b]	-	Mixture
TRO	−1.654822	−2.820213	−5.651460 [a]	−4.664206 [a]	I (1)
Phillips–Perron					
	Level		**First Difference**		
Series	**Intercept**	**Intercept and Trend**	**Intercept**	**Intercept and Trend**	**Outcome**
EMP	0.063523	−2.674798	−6.278099 [a]	−6.779748 [a]	I (1)
FEMP	−1.271446	−2.333682	−7.089228 [a]	−9.719374 [a]	I (1)

Table 3. *Cont.*

GDP	−1.136388	−1.531260	−4.201338 [a]	−4.128211 [b]	I (1)
GFC	−1.133455	−1.511135	−3.829933 [a]	−3.779060 [b]	I (1)
INC	−1.281491	−1.523480	−4.168976 [a]	−4.093441 [b]	I (1)
INF	−3.021799 [b]	−2.799925	-	−11.76261 [a]	Mixture
INT	−0.733752	−1.921496	−2.833158 [b]	−2.781295 [a]	I (1)
MEMP	0.037751	−2.662352	−4.955418 [a]	−4.822632 [a]	I (1)
MIG	−2.251710	−3.324921 [c]	−9.831794 [a]	−10.83173 [a]	I (1)
REM	−1.309631	−1.229263	−3.019217 [b]	−3.212906 [a]	I (1)
TRO	−1.307514	−2.606995	−8.367527 [a]	−9.826604 [a]	I (1)

a, b and c indicate significance @ the levels of 1 per cent, 5 per cent and 10 per cent, respectively. Source: Authors' computation.

Table 4 presents the bound test and cointegration result for the three models. Model 1 is for the aggregate employment indicator. Models 2 and 3 are for male and female employment indicators. LB represents the lower boundary, and UB represents the upper. If the F-statistic value is greater than the UB, there is cointegration. However, it cannot be decided when the F-statistic value is between the LB and UB. And, finally, when the F-statistic value is lower than the UB, there is no cointegration. In the case of models 1, 2, and 3, the F-statistic values are 9.261418, 9.280848, and 4.360929, respectively. Meanwhile, the UB at 10 per cent, 5 per cent, 2.5 per cent, and 1 per cent are as follows: 2.89, 3.21, 3.51, and 3.9, respectively. Given this, the values of the F-statistic in the three models are greater than the UB; hence, the presence of cointegration is established in the three models. Appendix A presents the model selections in Figures A1–A6.

Table 4. Bound test and cointegration result.

Model 1: Aggregate Model									
Dependent Variable: INC					**Dependent Variable: EMP**				
F-Bounds Test					**F-Bounds Test**				
Test Statistic	**Value**	**Sigf.**	**I(0)**	**I(1)**	**Test Statistic**	**Value**	**Sigf.**	**LB**	**UB**
F-statistic	9.261418	10%	1.92	2.89	F-statistic	21.49271	10%	1.92	2.89
		5%	2.17	3.21			5%	2.17	3.21
		2.5%	2.43	3.51			2.5%	2.43	3.51
		1%	2.73	3.9			1%	2.73	3.9
Model 2: Male Model									
Dependent Variable: INC					**Dependent Variable: EMP**				
F-Bounds Test					**F-Bounds Test**				
Test Statistic	**Value**	**Sigf.**	**I(0)**	**I(1)**	**Test Statistic**	**Value**	**Sigf.**	**LB**	**UB**
F-statistic	9.280848	10%	1.92	2.89	F-statistic	21.88000	10%	1.92	2.89
		5%	2.17	3.21			5%	2.17	3.21
		2.5%	2.43	3.51			2.5%	2.43	3.51
		1%	2.73	3.9			1%	2.73	3.9

Table 4. *Cont.*

Model 3: Female Model									
Dependent Variable: INC					**Dependent Variable: EMP**				
F-Bounds Test					**F-Bounds Test**				
Test Statistic	**Value**	**Sigf.**	**I(0)**	**I(1)**	**Test Statistic**	**Value**	**Sigf.**	**LB**	**UB**
F-statistic	4.360929	10%	1.92	2.89	F-statistic	11.69835	10%	1.92	2.89
		5%	2.17	3.21			5%	2.17	3.21
		2.5%	2.43	3.51			2.5%	2.43	3.51
		1%	2.73	3.9			1%	2.73	3.9

Source: Authors' computation.

4.2. ARDL Short- and Long-Run Results

Table 5 presents the short- and long-run results for model 1. When tourism income (INC) is used as the dependent variable, remittance (REM), employment (EMP), gross capital formation (GFC), trade openness, and (TRO) are statistically significant in the long run (LR). Interest rate (INT), inflation rate (INF), and migration (MIG) are not statistically significant. REM and GFC positively impact INC in the LR, meaning a one percentage increase in REM and GFC will increase INC by 0.09 per cent and 0.70 per cent, respectively. The findings align with the study of Abdulai (2023), who showed that the GDP growth rate has a long-run relationship with remittance inflows in Ghana. EMP and TRO negatively impact INC in the LR, meaning a one percentage increase in EMP and TRO will lead to a decrease of 1.2 per cent and 0.82 per cent, respectively, in INC. The findings contradict the study by Balcilar et al. (2021), which documented no significant relationship between employment and tourism income. The authors further stated that failure for employment not to be significant might be attributed to economic and demographic considerations in OECD nations and employment business cycles. In the short run (SR), REM, EMP, GFC, TRO, and MIG are statistically significant, while INT and INF are insignificant. In addition, REM, GFC, and MIG are positively related to INC, meaning a one percentage increment in REM, GFC, and MIG will cause an increase of 0.08 per cent, 0.89 per cent, and 0.001 per cent in INC, respectively. At the same time, one percentage increase in EMP and TRO will cause a decrease of 1.01 per cent and 0.35 per cent in INC, respectively.

Likewise, in Table 5, when EMP is used as the dependent variable, in the LR, REM, GDP, GFC, TRO, INT, and INF are statistically significant. REM, GFC, and INT have a positive relationship with EMP, meaning a one percentage increase in REM, GFC, and INT will lead to a 0.06 per cent, 0.74 per cent, and 0.10 per cent increase in EMP. The outcome of remittance on employment contradicts the findings by Saani et al. (2023), who reported that remittance negatively affects employment in the LR. At the same time, GDP, TRO, and INF have a negative relationship with EMP, meaning a one percentage increase in GDP, TRO, and INF will cause a 1.03 per cent, 0.54 per cent and 0.04 per cent decrease in EMP, respectively. The outcome of the negative relationship between employment and GDP is in line with the study of Asaleye et al. (2021), who stressed the need for board-based growth in developing economies. GDP, GFC, TRO, INT, INF, and MIG are statistically significant in the SR. REM is not significant, which aligns with the work of Hossain (2020), who found that remittances do not affect economic activities in Malaysia. The outcome indicates that one percentage increase in GFC, INT, and MIG will cause an increase of 0.67 per cent, 0.09 per cent, and 0.0009 per cent in EMP, respectively. Also, one percentage increase in GDP, TRO, and INF will cause a decrease of 0.75 per cent, 0.18 per cent, and 0.02 per cent in EMP, respectively. ECM measures the speed of adjustment to the long-run equilibrium; when INC and EMP are used as dependent variables, the ECM values are 0.20 and 0.90 per cent, respectively. The outcome of the diagnostic checks for both equations shows that the models are specified correctly. Likewise, the R-squared of more than 50 per cent indicates

good fitness, and Durbin Waston (DW stat) is close to 2, which signifies no autocorrelation in the models.

Table 5. Short- and long-run results for model 1.

Long-Run Result					**Short-Run Result**				
Dependent Variable: INC									
Variable	**Coff**	**St. Error**	**t-stat**	**Prob**	**Variable**	**Coff**	**St. Error**	**t-stat**	**Prob**
REM	0.0967 [b]	0.0313	3.0836	0.0131	D(REM)	0.0788 [b]	0.0277	2.8475	0.0192
EMP	−1.1980 [a]	0.2209	−5.4232	0.0004	D(EMP)	−1.0118 [a]	0.1770	−5.7135	0.0003
GFC	0.7026 [a]	0.0111	62.889	0.0000	D(GFC)	0.8888 [a]	0.0232	38.186	0.0000
TRO	−0.8249 [a]	0.1385	−5.9564	0.0002	D(TRO)	−0.3535 [a]	0.0880	−4.0149	0.0030
INT	−0.0009	0.0134	−0.0731	0.9433	D(INT)	−0.0011	0.0152	−0.0731	0.9433
INF	−0.0198	0.0144	−1.3755	0.2022	D(INF)	−0.0052	0.0169	−0.3075	0.7655
MIG	−0.0003	0.0007	−0.4775	0.6444	D(MIG)	0.0011 [b]	0.0004	2.6613	0.0260
C	−1.9153 [a]	0.5177	−3.6992	0.0049	ECM	−0.2038 [a]	0.0348	−5.8471	0.0002
R-squared	0.997654		DW stat			2.257730			
Adj R-squ				0.995998					
Diagnostic Checks									
Histogram Normality Test			Jarque–Bera	1.6603	Prob		0.4359		
Serial Correlation LM Test			Obs*R-squared	8.3333	Prob		0.0155		
Heteroskedasticity Test			Obs*R-squared	1.8377	Prob		0.3990		
Long-Run Result					**Short-Run Result**				
Dependent Variable: EMP									
Variable	**Coff**	**St. Error**	**t-stat**	**Prob**	**Variable**	**Coff**	**St. Error**	**t-stat**	**Prob**
REM	0.0587 [a]	0.0168	3.4777	0.0046	D(REM)	0.0221	0.0148	1.4972	0.1602
GDP	−1.0256 [a]	0.1289	−7.9539	0.0000	D(GDP)	−0.7497 [a]	0.0937	−7.9975	0.0000
GFC	0.7412 [a]	0.0978	7.5783	0.0000	D(GFC)	0.6716 [a]	0.0817	8.2194	0.0000
TRO	−0.5391 [a]	0.1090	−4.9457	0.0003	D(TRO)	−0.1774 [a]	0.0535	−3.3119	0.0062
INT	0.1024 [a]	0.0241	4.2373	0.0012	D(INT)	0.0927 [a]	0.0188	4.9175	0.0004
INF	−0.0431 [a]	0.0072	−5.9789	0.0001	D(INF)	−0.0197 [b]	0.0074	−2.6614	0.0207
MIG	0.0004	0.0005	0.8656	0.4037	D(MIG)	0.0009 [b]	0.0003	2.5293	0.0265
C	4.2912 [a]	0.1860	23.063	0.0000	ECM	−0.9060 [a]	0.0504	−17.955	0.0000
R-squared	0.993787		DW stat			2.071640			
Adj R-squ				0.984986					
Diagnostic Checks									
Histogram Normality Test			Jarque–Bera	9.8902	Prob		0.0071		
Serial Correlation LM Test			Obs*R-squared	1.6213	Prob		0.5107		
Heteroskedasticity Test			Obs*R-squared	1.4574	Prob		0.4825		

a and b indicate significance @ 1 per cent and 5 per cent, respectively. Source: Authors' computation.

Table 6 presents the short- and long-run results for model 2. When income (INC) is used as the dependent variable, remittance (REM), employment (EMP), gross capital formation (GFC), trade openness (TRO), the interest rate (INT), and the inflation rate (INF) are statistically significant in the long run (LR). Migration (MIG) is not statistically significant. This finding contradicts the study by Simionescu et al. (2016); the authors

documented a negative correlation between net migration and income in the SR. In the LR, they reported a positive relationship. REM and GFC positively impact INC in the LR, meaning a one percentage increase in REM and GFC will increase INC by 0.03 per cent and 0.69 per cent, respectively. The impact of remittance on income aligns with the study by Abdulai (2023). MEMP, TRO, INT, and INF negatively impact INC in the LR, meaning a one percentage increase in MEMP, TRO, INT, and INF will lead to a decrease of 1.06 per cent, 0.64 per cent, 0.03 per cent, and 0.03 per cent, respectively, in INC. This finding with respect to income and employment aligns with the findings of Asaleye et al. (2021). In the short run (SR), REM, EMP, GFC, TRO, INT, INF, and MIG are statistically significant. In addition, REM, GFC, and MIG are positively related to INC, meaning a one percentage increment in REM, GFC, and MIG will cause an increase of 0.05 per cent, 0.87 per cent, and 0.001 per cent in INC, respectively. At the same time, one percentage increase in MEMP, TRO, INT, and INF will cause a decrease of 1.30 per cent, 0.18 per cent, 0.04 per cent, and 0.03 per cent in INC, respectively. The diagnostic checks show that the model is correctly specified; the stability test is in the Appendix B section in Figures A7 and A8.

Likewise, in Table 6, when MEMP is used as the dependent variable, in the LR, REM, GDP, GFC, TRO, INT, and MIG are statistically significant. REM, GFC, INT, and MIG have a positive relationship with MEMP, meaning a one percentage increase in REM, GFC, INT and MIG will lead to a 0.03 per cent, 0.76 per cent, 0.09 per cent, and 0.001 per cent increase in EMP. At the same time, GDP and TRO have a negative relationship with MEMP, meaning a one percentage increase in GDP and TRO will cause a 1.06 per cent and 0.57 per cent decrease in MEMP, respectively. REM, GDP, GFC, TRO, INF, and MIG are statistically significant in the SR. INT is not significant. This outcome indicates that one percentage increase in REM, GFC, INT, and MIG will cause an increase of 0.02 per cent, 0.62 per cent and 0.0009 per cent in MEMP, respectively. Also, one percentage increase in GDP, TRO, and INF will cause a decrease of 0.66 per cent, 0.10 per cent, and 0.02 per cent in MEMP, respectively. The ECM measures the speed of adjustment to the long-run equilibrium; when INC and MEMP are used as dependent variables, the ECM values are 0.01 and 0.009 per cent, respectively. The outcome of the diagnostic checks for both equations shows that the models are specified correctly. Likewise, the R-squared of more than 50 per cent indicates good fitness, and Durbin Waston (DW stat) is close to 2, which signifies no autocorrelation in the models.

Table 7 presents the short- and long-run results for model 3. When income (INC) is used as the dependent variable, remittance (REM), female employment (FEMP), gross capital formation (GFC), and trade openness (TRO) are statistically significant in the long run (LR). Interest rate (INT), inflation rate (INF) and migration (MIG) are not statistically significant. REM and GFC positively impact INC in the LR, meaning a one percentage increase in REM and GFC will increase INC by 0.23 per cent and 0.66 per cent, respectively. The findings align with the study by Meyer and Shera (2017), which showed a positive relationship between remittance and income in six high-remittance-receiving countries. The diagnostic checks show that the model is correctly specified; the stability test is in the Appendix B section in Figures A9 and A10.

FEMP and TRO negatively impact INC in the LR, meaning a one percentage increase in FEMP and TRO will lead to a decrease of 1.36 per cent and 0.08 per cent, respectively, in INC. In the short run (SR), REM, FEMP, GFC, and TRO are statistically significant. INT, INF, and MIG are not significant. In addition, REM and GFC are positively related to INC, meaning a one percentage increment in REM and GFC will cause an increase of 0.12 per cent and 0.92 per cent in INC, respectively. At the same time, a one percentage increase in FEMP and TRO will cause a decrease of 0.92 per cent and 0.47 per cent in INC, respectively.

Table 6. Short- and long-run results for model 2.

Long-run Result					Short-run Result				
Dependent Variable: INC									
Variable	**Coff**	**St. Error**	**t-stat**	**Prob**	**Variable**	**Coff**	**St. Error**	**t-stat**	**Prob**
REM	0.0306 [b]	0.0117	2.6162	0.0280	D(REM)	0.0520 [b]	0.0199	2.6029	0.0286
MEMP	−1.0570 [a]	0.1230	−8.5873	0.0000	D(MEMP)	−1.2890 [a]	0.1899	−6.7875	0.0001
GFC	0.6885 [a]	0.0090	75.919	0.0000	D(GFC)	0.8741 [a]	0.0229	38.127	0.0000
TRO	−0.6395 [a]	0.0482	−13.264	0.0000	D(TRO)	−0.1775 [b]	0.0747	−2.3764	0.0415
INT	−0.0295 [b]	0.0126	−2.3351	0.0444	D(INT)	−0.0439 [c]	0.0205	−2.1435	0.0607
INF	−0.0287 [a]	0.0081	−3.5143	0.0066	D(INF)	−0.0288 [c]	0.0129	−2.2321	0.0525
MIG	0.0113	0.0217	0.5245	0.6043	D(MIG)	0.0011 [a]	0.0004	2.5785	0.0298
C	−1.6018	0.4085	−3.9210	0.0035	ECM	0.2702 [a]	0.0265	10.162	0.0000
R-squared	0.899698	DW stat				2.245898			
Adj R-squ					0.799028				
Diagnostic Checks									
Histogram Normality Test			Jarque–Bera	0.001312	Prob		0.999		
Serial Correlation LM Test			Obs*R-squared	1.622336	Prob		0.405		
Heteroskedasticity Test			Obs*R-squared	1.190410	Prob		0.551		
Long-run Result					**Short-run Result**				
Dependent Variable: MEMP									
Variable	**Coff**	**St. Error**	**t-stat**	**Prob**	**Variable**	**Coff**	**St. Error**	**t-stat**	**Prob**
REM	0.0305 [b]	0.0116	2.6252	0.0254	D(REM)	0.0223 [c]	0.0113	1.9583	0.0787
GDP	−1.0595 [a]	0.0914	−11.582	0.0000	D(GDP)	−0.6856 [a]	0.0861	−7.9584	0.0000
GFC	0.7553 [a]	0.0701	10.768	0.0000	D(GFC)	0.6193 [a]	0.0735	8.4241	0.0000
TRO	−0.5721 [a]	0.0723	−7.9039	0.0000	D(TRO)	−0.1032 [c]	0.0508	−2.0290	0.0699
INT	0.0912 [a]	0.0162	5.6316	0.0002	D(INT)	0.0207	0.0460	0.4499	0.6623
INF	0.0014	0.0217	0.0658	0.9480	D(INF)	−0.0182 [b]	0.0060	−3.0375	0.0125
MIG	0.0010 [a]	0.0002	3.3242	0.0077	D(MIG)	0.0009 [a]	0.000306	3.1780	0.0099
C	4.6833 [a]	0.1577	29.693	0.0000	ECM	0.0086 [a]	0.002644	3.2548	0.0086
R-squared	0.969209	DW stat				2.117581			
Adj R-squ					0.950392				
Diagnostic Checks									
Histogram Normality Test			Jarque–Bera	2.928085	Prob		0.2312		
Serial Correlation LM Test			Obs*R-squared	8.969073	Prob		0.0113		
Heteroskedasticity Test			Obs*R-squared	0.986257	Prob		0.6107		

a, b, and c indicate significance @ levels of 1 per cent, 5 per cent, and 10 per cent, respectively. Source: Authors' computation.

Likewise, in Table 7, when FEMP is used as the dependent variable, in the LR, REM, GDP, GFC, TRO, INT, and INF are statistically significant. MIG is insignificant. REM, GFC, and INT have a positive relationship with FEMP, meaning a one percentage increase in REM, GFC, and INT will lead to a 0.09 per cent, 0.65 per cent, and 0.10 per cent increase in FEMP. At the same time, GDP, TRO, and INF have a negative relationship with FEMP, meaning a one percentage increase in GDP, TRO, and INF will cause a 0.88 per cent, 0.48 per cent, and 0.05 per cent decrease in FEMP, respectively. GDP, GFC, TRO, and INT are statistically

significant in the SR. REM, INF and MIG are not significant. The outcome indicates that one percentage increase in GFC and INT will cause an increase of 0.69 per cent and 0.09 per cent in FEMP, respectively. Also, one percentage increase in GDP and TRO will cause a decrease of 0.76 per cent and 0.24 per cent in FEMP, respectively. The ECM measures the speed of adjustment to the long-run equilibrium; when INC and FEMP are used as dependent variables, the ECM values are 0.78 and 0.86 per cent, respectively. The outcome of the diagnostic checks for both equations shows that the models are specified correctly. Likewise, the R-squared of more than 50 per cent indicates good fitness, and Durbin Waston (DW stat) is close to 2, which signifies no autocorrelation in the models. The diagnostic checks show that the model is correctly specified; the stability test is in the Appendix B section in Figures A11 and A12.

Investing in tourism is important for economies as it serves as a key driver of economic growth and recovery. Several studies have revealed that tourism can add to higher levels of economic activity, especially when it is a major contributor to a country's Gross Domestic Product (GDP). Using Granger causality tests and cointegration, Balaguer and Cantavella-Jorda's (2002) examined the role of tourism in the long-run economic development of Spain. Their study confirmed the tourism-led growth hypothesis, revealing that tourism plays an important role in long-term economic growth. The vastness of tourism means that the potential for employment and income can be explored in several ways.

Tourism creates both direct and indirect employment opportunities across different sectors. Direct employment is created through jobs that are directly involved in offering tourism experiences, for example, tour operators and travel agencies. Indirect employment, on the other hand, involves extra jobs generated by the tourism-related economy. For example, marketing agencies that market tourism services and producers of souvenirs. The industry's ability to create numerous jobs in related sectors highlights its value as a key contributor to economic development in countries. Evidence has been established on the various ways that income is generated through tourism. Through foreign exchange earnings, reserves are grown to finance imports. Where jobs are created, the earnings of populations increase, and this spending can further contribute to income growth.

Concerning the sources of income for tourism activities, remittances have played a significant role in facilitating tourism-related expenditure. For example, for family reunions in locations outside their home countries. This allocation of remittances towards tourism activities benefits the tourism industry of respective countries and has the potential to contribute positively to overall economic growth by providing households with extra income to use for investment, consumption, or starting a business. While the influx of funds is not consistent, it is continuous as it stimulates economic activity such as participation in tourism activities. With regard to employment, while tourism is said to create employment opportunities, remittances have also been found to have an impact on employment, albeit inconsistently. Some positive impacts include job development and reduced unemployment in the long run, while some negative impacts comprise a decline in labour market participation of certain groups and reduced labour supply. The impact varies depending on several factors such as the context and characteristics of the receiving countries.

Table 7. Short- and long-run results for model 3.

Long-Run Result					Short-Run Result				
Dependent Variable: INC									
Variable	**Coff**	**St. Error**	**t-stat**	**Prob**	**Variable**	**Coff**	**St. Error**	**t-stat**	**Prob**
REM	0.2376 [b]	0.0873	2.7195	0.0298	D(REM)	0.1194 [b]	0.0403	2.9592	0.0211
FEMP	−1.3553 [a]	0.3744	−3.6199	0.0085	D(FEMP)	−0.9188 [a]	0.1879	−4.8897	0.0018
GFC	0.6864 [a]	0.0394	17.415	0.0000	D(GFC)	0.9159 [a]	0.0357	25.603	0.0000
TRO	−1.0777 [a]	0.2777	−3.8799	0.0061	D(TRO)	−0.4672 [a]	0.0629	−7.4205	0.0001
INT	0.0396	0.0318	1.2470	0.2525	D(INT)	0.1084	0.1284	0.8441	0.4265
INF	−0.0131	0.0308	−0.4274	0.6819	D(INF)	0.0127	0.0143	0.8894	0.4033
MIG	−0.0015	0.0015	−1.0426	0.3318	D(MIG)	0.0010	0.0006	1.6582	0.1412
C	−2.0120 [b]	0.8326	−2.4163	0.0463	ECM	−0.7814 [a]	0.0852	−9.1708	0.0000
R-squared	0.996507	DW stat				2.631008			
Adj R-squ					0.993246				
Diagnostic Checks									
Histogram Normality Test			Jarque–Bera		2.487406	Prob		0.1087	
Serial Correlation LM Test			Obs*R-squared		2.268610	Prob		0.1990	
Heteroskedasticity Test			Obs*R-squared		1.481449	Prob		0.4768	
Long-Run Result					**Short-Run Result**				
Dependent Variable: FEMP									
Variable	**Coff**	**St. Error**	**t-stat**	**Prob**	**Variable**	**Coff**	**St. Error**	**t-stat**	**Prob**
REM	0.0851 [b]	0.0281	3.0264	0.0115	D(REM)	0.0317	0.0210	1.5044	0.1606
GDP	−0.8828 [a]	0.1877	−4.7034	0.0006	D(GDP)	−0.7606 [a]	0.1307	−5.8163	0.0001
GFC	0.6504 [a]	0.1437	4.5252	0.0009	D(GFC)	0.6855 [a]	0.1155	5.9347	0.0001
TRO	−0.4754 [b]	0.1735	−2.7398	0.0192	D(TRO)	−0.2422 [b]	0.0788	−3.0739	0.0106
INT	0.0997 [b]	0.0357	2.7942	0.0175	D(INT)	0.0859 [a]	0.0248	3.4598	0.0053
INF	−0.0494 [a]	0.0131	−3.7715	0.0031	D(INF)	−0.0195	0.0118	−1.6542	0.1263
MIG	−0.0003	0.0007	−0.4280	0.6769	D(MIG)	0.0008	0.0005	1.6917	0.1188
C	3.6274 [a]	0.2576	14.080	0.0000	ECM	−0.8615 [a]	0.0638	−13.485	0.0000
R-squared	0.976473	DW stat				2.262649			
Adj R-squ					0.937975				
Diagnostic Checks									
Histogram Normality Test			Jarque–Bera		2.615982	Prob		0.2703	
Serial Correlation LM Test			Obs*R-squared		2.731177	Prob		0.1183	
Heteroskedasticity Test			Obs*R-squared		3.760911	Prob		0.1525	

a and b indicate significance @ 1 per cent and 5 per cent, respectively. Source: Authors' computation.

4.3. Granger Causality Result

Table 8 presents the causality result. The chosen variables are indicators of employment, remittances, and migration. The result shows a bi-directional relationship between the following variables: FEMP and EMP, MEMP and EMP, and MEMP and FEMP. Likewise, there is a unidirectional relationship between REM and MIG, and MIG and INC, flowing from REM to MIG and from MIG to INC, respectively. Among the other variables tested, there is evidence of independence.

Table 8. Granger causality test result.

Null Hypothesis	Obs	F-Statistic	Prob.
FEMP and EMP			
FEMP does not Granger cause EMP	30	23.4511 [a]	0.000
EMP does not Granger cause FEMP		26.0608 [a]	0.000
INC and EMP			
INC does not Granger cause EMP	30	1.62580	0.2169
EMP does not Granger cause INC		0.92664	0.4091
MEMP and EMP			
MEMP does not Granger cause EMP	30	20.7247 [a]	0.000
EMP does not Granger cause MEMP		16.6380 [a]	0.000
MIG and EMP			
MIG does not Granger cause EMP	30	0.64126	0.5351
EMP does not Granger cause MIG		0.60771	0.5524
REM and EMP			
REM does not Granger cause EMP	30	0.56340	0.5763
EMP does not Granger cause REM		0.19748	0.8221
INC and FEMP			
INC does not Granger cause FEMP	30	2.29106	0.1220
FEMP does not Granger cause INC		1.05566	0.3630
MEMP and FEMP			
MEMP does not Granger cause FEMP	30	25.1111 [a]	0.000
FEMP does not Granger cause MEMP		16.9728 [a]	0.000
MIG and FEMP			
MIG does not Granger cause FEMP	30	1.15855	0.3302
FEMP does not Granger cause MIG		0.12162	0.8860
REM and FEMP			
REM does not Granger cause FEMP	30	0.85288	0.4382
FEMP does not Granger cause REM		0.10868	0.8974
MEMP and INC			
MEMP does not Granger cause INC	30	1.86058	0.1765
INC does not Granger cause MEMP		1.52282	0.2376
MIG and INC			
MIG does not Granger cause INC	30	2.67194 [c]	0.0888
INC does not Granger cause MIG		1.25831	0.3015
REM and INC			
REM does not Granger cause INC	30	1.80251	0.1857
INC does not Granger cause REM		0.75315	0.4813
MIG and MEMP			
MIG does not Granger cause MEMP	30	0.44343	0.6468
MEMP does not Granger cause MIG		1.38515	0.2688
REM and MEMP			
REM does not Granger cause MEMP	30	0.65139	0.5299
MEMP does not Granger cause REM		0.48214	0.6231

Table 8. *Cont.*

Null Hypothesis	Obs	F-Statistic	Prob.
REM and MIG			
REM does not Granger cause MIG	30	3.39111 [b]	0.0498
MIG does not Granger cause REM		0.45346	0.6405

a, b, and c indicate significance @ levels of 1 per cent, 5 per cent, and 10 per cent, respectively. Source: Authors' computation.

5. Conclusions and Policy Recommendations

5.1. Summary of This Work

This study investigates the effect of remittance and migration on tourism income and gender-specific employment in the South African economy, using ARDL and Granger causality. Three models were established in this study, each with two equations. Each model comprises a tourism income equation and an employment equation. The first model is for aggregate employment. The second model is for male employment, and the third is for female employment. The key findings are as follows: Firstly, remittance appears as a significant driver of tourism income, showing a positive influence in both the short and long run across all three models; this underlines the importance of remittance inflows in stimulating economic activity within the tourism sector and its potential to promote growth and development. Additionally, migration exhibits a mixed relationship with tourism income, being statistically insignificant in the long run for female employment but positively affecting tourism income in the short run for male and aggregate employment.

Furthermore, the analysis of gender-specific employment reveals differential effects of remittance and migration. Remittance positively impacts male employment in both the short and long run, while its effect on female employment is significant only in the long run. On the other hand, migration positively influences male employment in both the short and long run. Still, it exhibits a significant relationship with female employment in the short and long run. The Granger causality results show a bi-directional relationship among all employment indicators: the aggregate and male and female employment. A unidirectional relationship is observed between remittance and migration, as well as migration and income, suggesting the flow of causality from remittance to migration and migration to income, respectively.

As indicated by the result, remittance positively influences male employment in both the short and long run across all models. Its effect on female employment is only significant in the long run; these observed differences in the impact of remittances on male and female employment are likely from existing gender roles and labour market structures. Traditionally, men are likely to engage in immediate employment opportunities because of societal expectations of being the primary source of income, hence the positive short-term effect. Conversely, women might face barriers such as limited access to education and childcare responsibilities, which lower their economic participation. Over the long term, remittances could provide resources that gradually alleviate these barriers, allowing more women to seek employment. This gendered discrepancy highlights the need for policies addressing structural inequalities, ensuring that remittance benefits can equitably support both men and women in the labour market.

5.2. Policy Recommendations

Based on these findings, this study recommends the following policies: the government should create incentives for families that receive remittances to invest in tourism-related activities; this could be through tax incentives or low-interest loans to develop tourism infrastructure or services. Inter-sectoral policy coordination could be introduced to address sectoral trade-offs between employment and tourism income; this could minimise the negative impact by promoting sector collaboration. Where worker skills and jobs are affected, skills development plans could focus on potentially providing workers

from sectors negatively affected by tourism with skills to transition into tourism-related jobs. By leveraging migration to boost tourism income, such as exchange programmes and pageants, initiatives that promote tourism could be promoted. To promote gender-inclusive employment policies, targeted initiatives that support female employment in tourism could be implemented—for example, programmes to support female-owned businesses in the tourism sector. Strategies to encourage female workforce participation that could be implemented include flexible hours or childcare support. Hiring practices could be scrutinised and adjusted to achieve inclusivity. To capitalise on the unidimensional causality from remittances to migration, policies that reduce the costs of remittance transfers and encourage remittance flows could be implemented.

Author Contributions: Conceptualization, S.M.; Methodology, A.J.A. and R.G.; Software, A.J.A.; Validation, P.A.-A.; Formal analysis, S.M.; Investigation, A.J.A.; Resources, S.M.; Writing—original draft, S.M.; Writing—review & editing, P.A.-A., A.J.A. and R.G.; Visualization, S.M.; Supervision, P.A.-A. and R.G.; Project administration, P.A.-A. and R.G.; Funding acquisition, S.M. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: Information and link about the data is provided in Table 1.

Conflicts of Interest: The authors declare no conflict of interest.

Appendix A. Model Selection

Model 1 (Aggregate Equation)

When INC is used as the dependent variable.

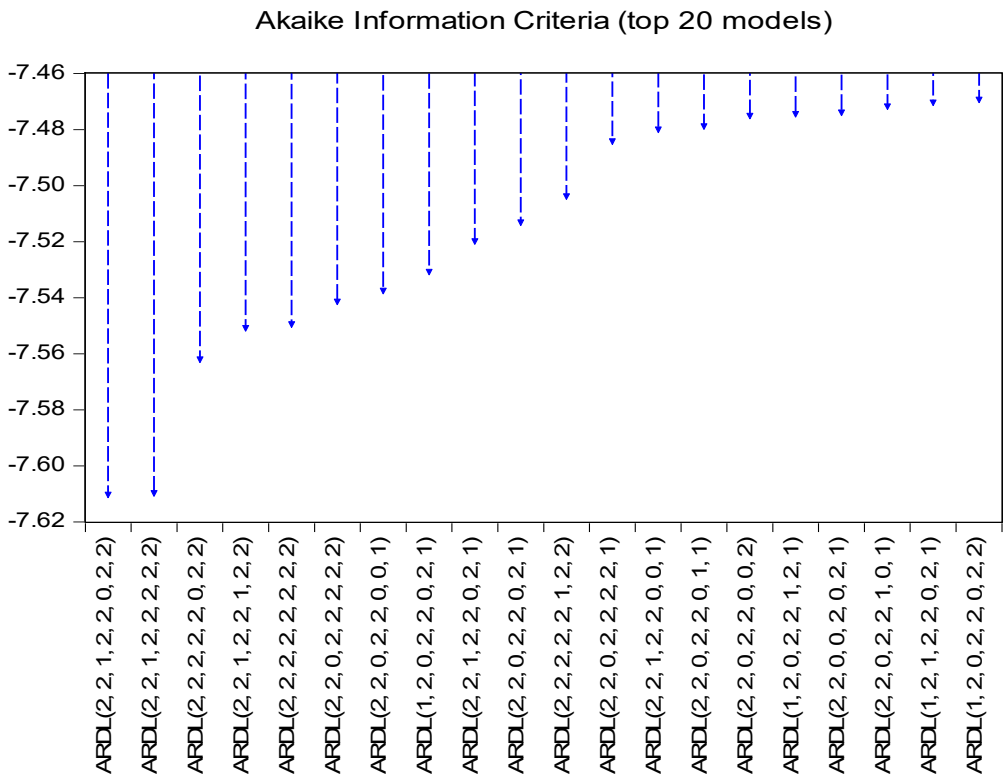

Figure A1. Model selection when INC is used as the dependent variable for model 1. Source: Authors' computation.

When EMP is used as the dependent variable.

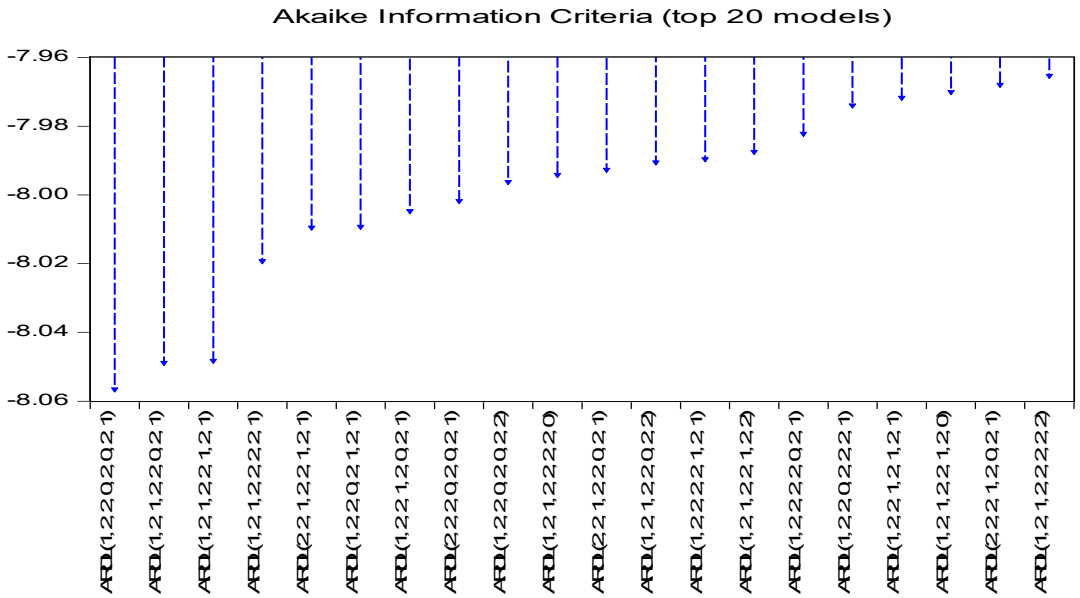

Figure A2. Model selection when EMP is used as the dependent variable for model 1. Source: Authors' computation.

Model 2 (Male Equation)

When INC is used as the dependent variable.

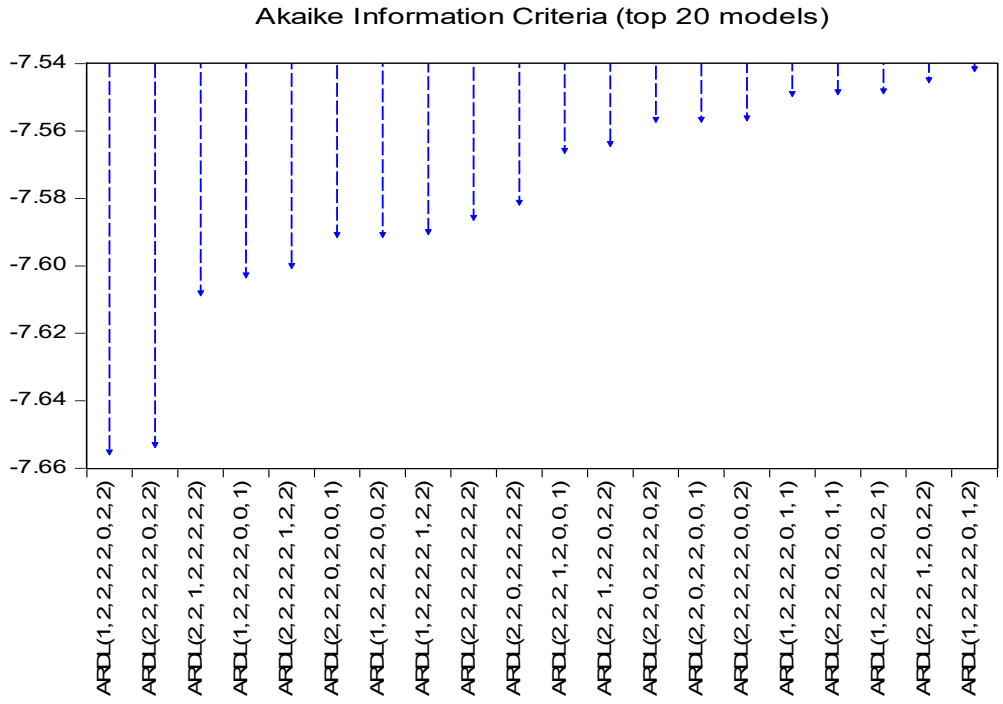

Figure A3. Model selection when INC is used as the dependent variable for model 2. Source: Authors' computation.

When MEMP is used as the dependent variable.

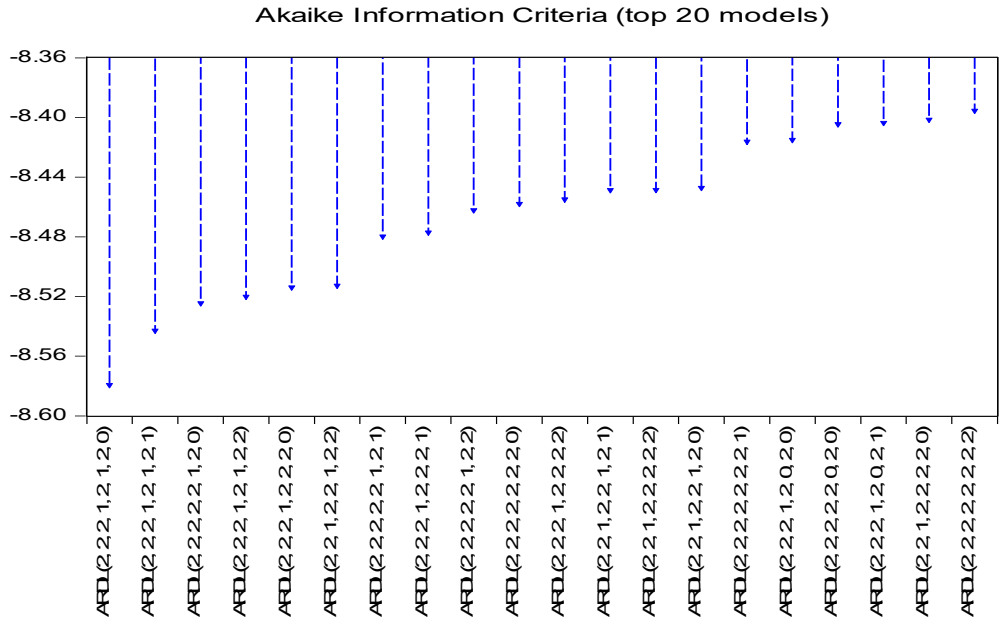

Figure A4. Model selection when MEMP is used as the dependent variable for model 2. Source: Authors' computation.

Model 3 Female Equation

When INC is used as the dependent variable.

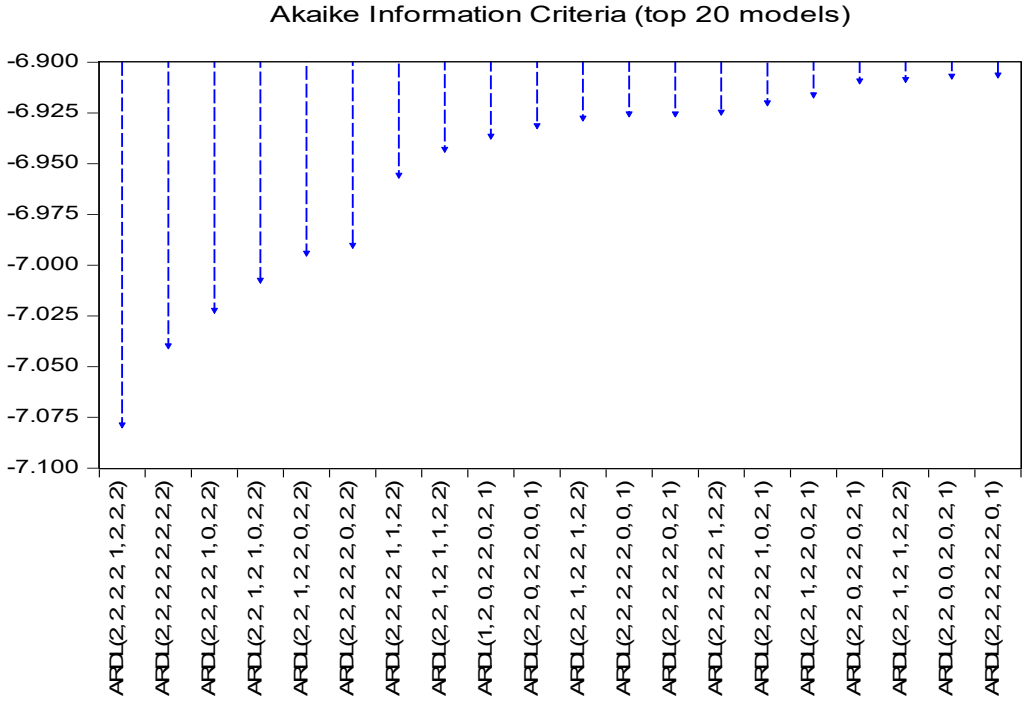

Figure A5. Model selection when INC is used as the dependent variable for model 3. Source: Authors' computation.

When FEMP is used as the dependent variable.

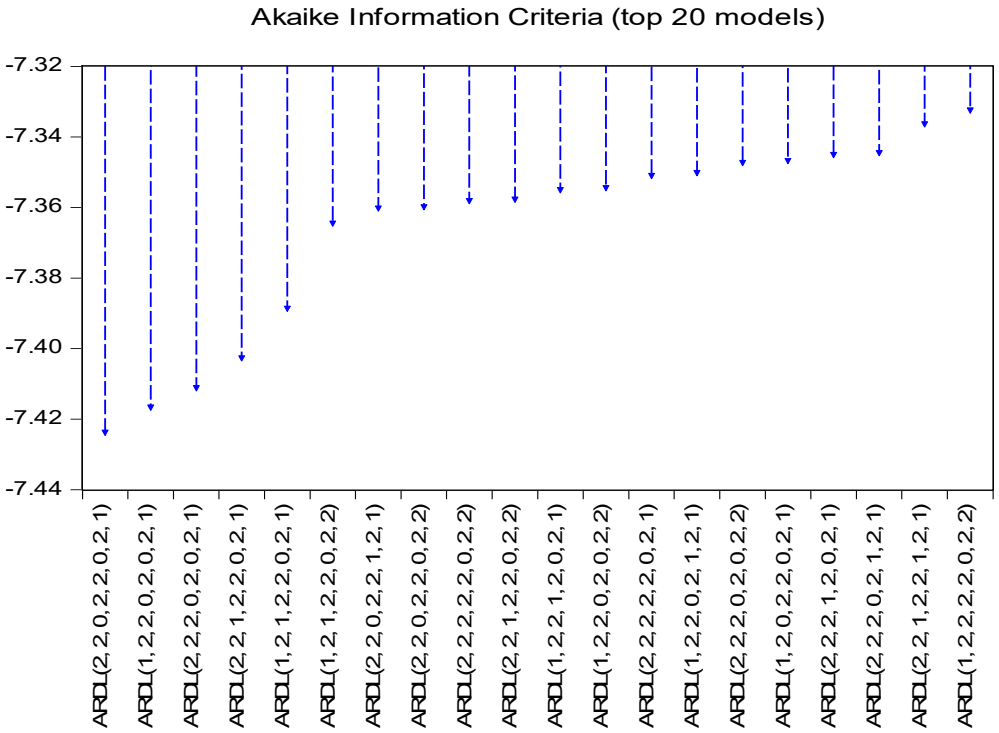

Figure A6. Model selection when FEMP is used as the dependent variable for model 3. Source: Authors' computation.

Appendix B. Stability Result

Model 1 (Aggregate Equation)

When INC is used as the dependent variable.

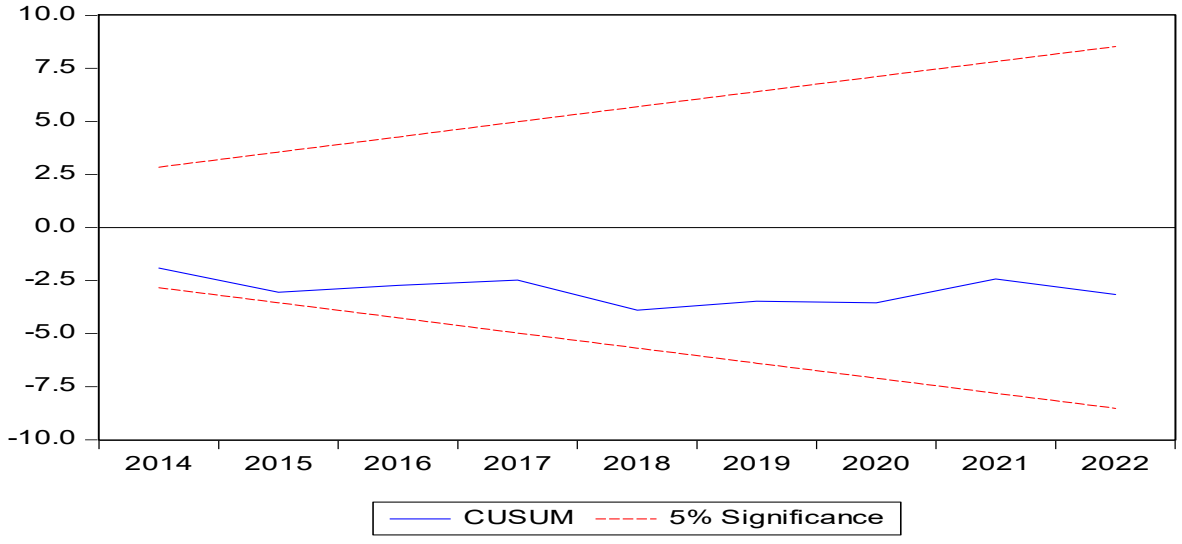

Figure A7. Stability when INC is used as the dependent variable for model 1. Source: Authors' computation.

When EMP is used as the dependent variable.

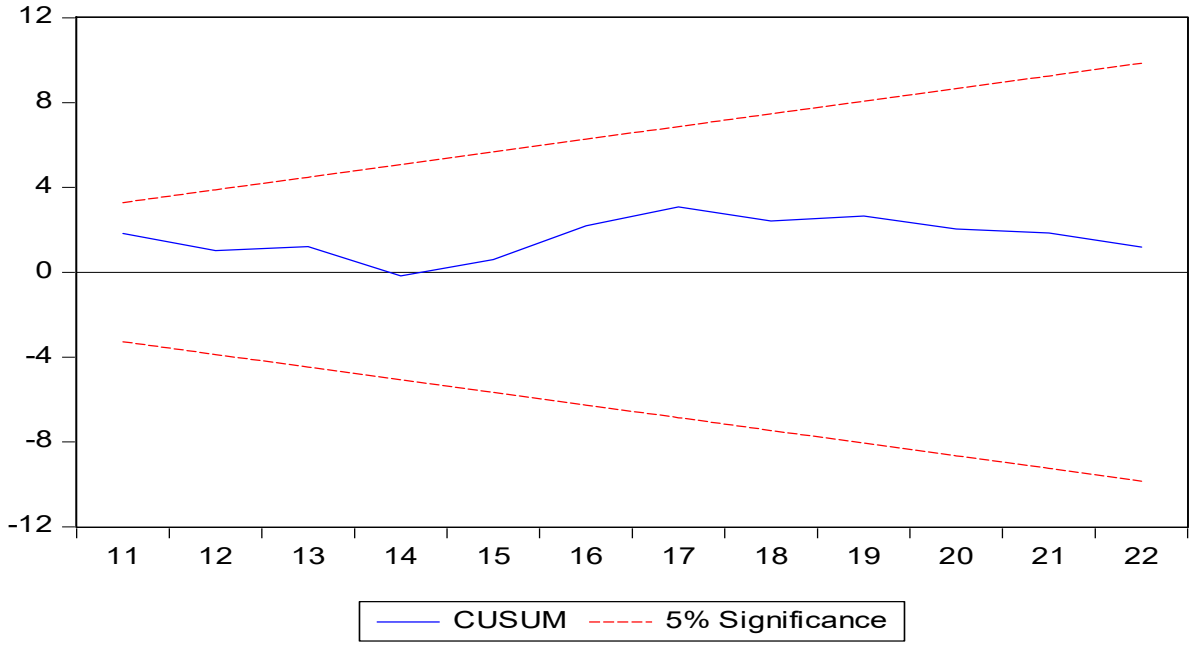

Figure A8. Stability when EMP is used as the dependent variable for model 1. Source: Authors' computation.

Model 2 (Male Equation)

When INC is used as the dependent variable.

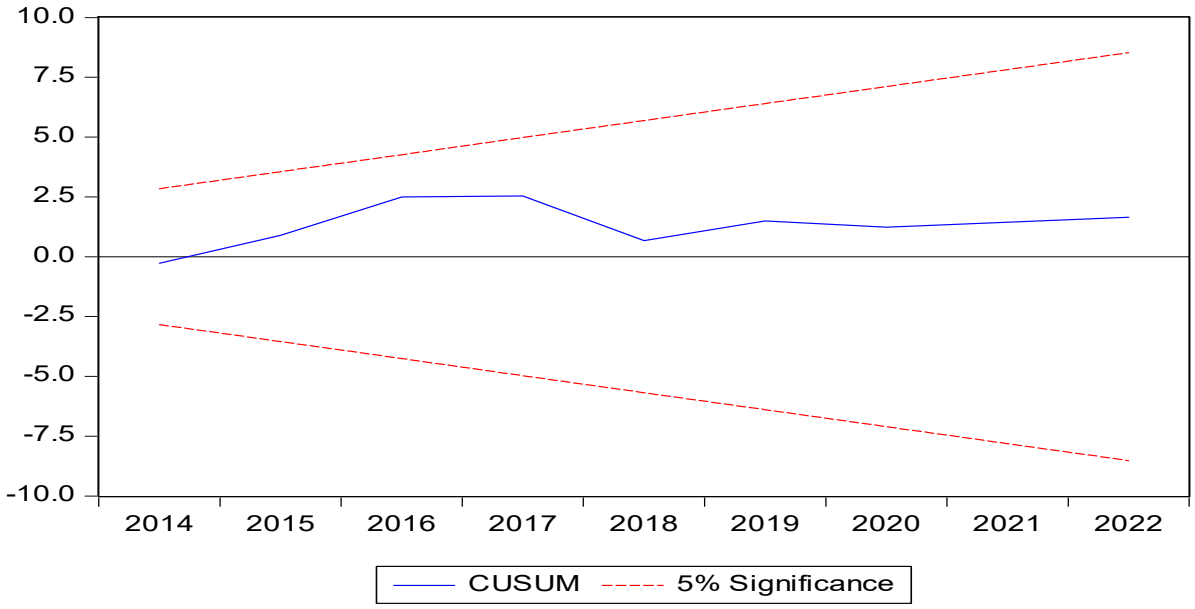

Figure A9. Stability when INC is used as the dependent variable for model 2. Source: Authors' computation.

When MEMP is used as the dependent variable.

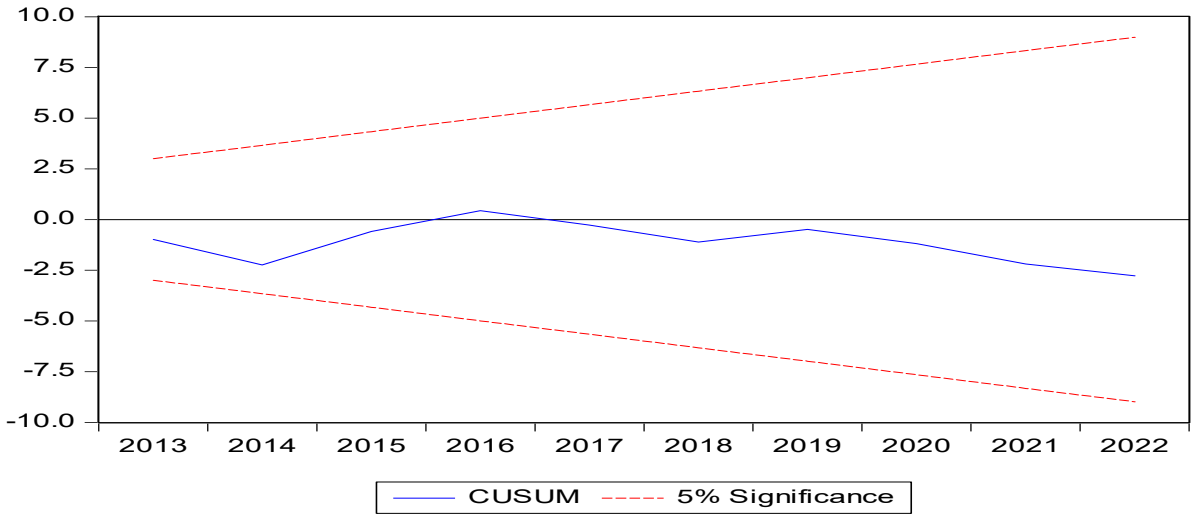

Figure A10. Stability when MEMP is used as the dependent variable for model 2. Source: Authors' computation.

Model 3 Female Equation

When INC is used as the dependent variable.

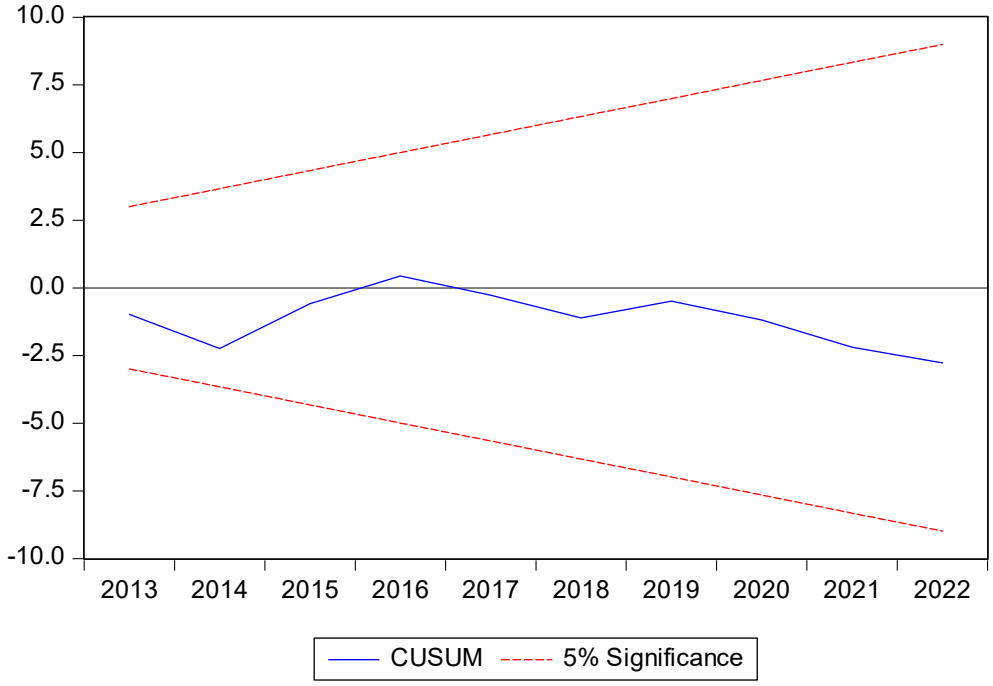

Figure A11. Stability when INC is used as the dependent variable for model 3. Source: Authors' computation.

When FEMP is used as the dependent variable.

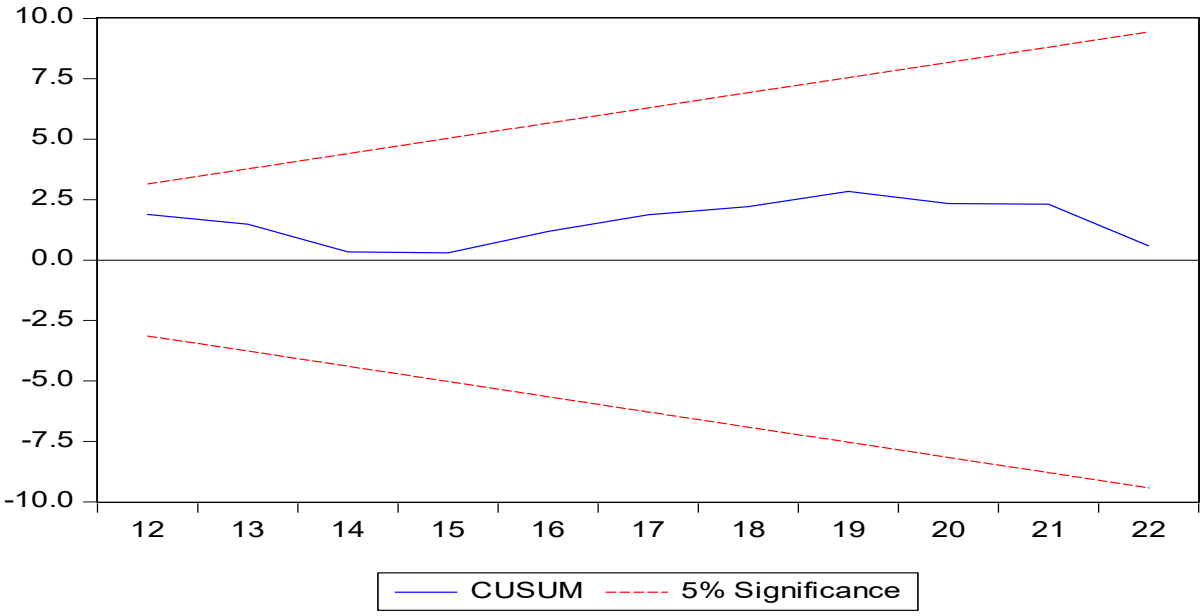

Figure A12. Stability when FEMP is used as the dependent variable for model 2. Source: Authors' computation.

References

Abdulai, Abdul-Malik. 2023. The impact of remittances on economic growth in Ghana: An ARDL bound test approach. *Cogent Economics & Finance* 11: 2243189. [CrossRef]

Adams, Richard Harding, Jr., and John Page. 2005. Do international migration and remittances reduce poverty in developing countries? *World Development* 33: 1645–69. [CrossRef]

Akkemik, Kemal Ali. 2007. The response of employment to GDP growth in Turkey: An econometric estimation. *Applied Econometrics and International Development* 7: 65–74. Available online: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1249086 (accessed on 11 April 2024).

Alderotti, Giammarco, Eleonora Mussino, and Chiara Ludovica Comolli. 2023. Natives' and migrants' employment uncertainty and childbearing during the great recession: A comparison between Italy and Sweden. *European Societies* 25: 539–73. [CrossRef]

Amuedo-Dorantes, Catalina, and Susan Pozo. 2006. Migration, remittances, and male and female employment patterns. *American Economic Review* 96: 222–26. Available online: https://www.aeaweb.org/articles?id=10.1257/000282806777211946 (accessed on 11 April 2024). [CrossRef]

Ang, Andrew, and Monika Piazzesi. 2003. A No-Arbitrage Vector Autoregression of Term Structure Dynamics with Macroeconomic and Latent Variables. *Journal of Monetary Economics* 50: 745–87. [CrossRef]

Asaleye, Abiola John, and Kariena Strydom. 2023. Promoting Women's Empowerment: Linkages Between Financial Development, Employment and Economic Growth in Selected African Economies. *Sage Open* 13: 21582440231202413. [CrossRef]

Asaleye, Abiola John, Abiola Ayopo Babajide, Henry Inegbedion, Damilola Felix Eluyela, Adedoyin Isola Lawal, and Rotdelmwa Filibus Maimako. 2023a. Implications of accountability on employment and income: Evidence from Nigerian's deposit banks. *Journal of Accounting in Emerging Economies* 13: 377–98. [CrossRef]

Asaleye, Abiola John, Adeola Phillip Ojo, and Opeyemi Eunice Olagunju. 2023b. Asymmetric and shock effects of foreign AID on economic growth and employment generation. *Research in Globalization* 6: 100123. [CrossRef]

Asaleye, Abiola John, Isaiah Olurinola, Elizabeth Funlayo Oloni, and Joseph Olufemi Ogunjobi. 2017. Productivity growth, wages and employment nexus: Evidence from Nigeria. *Journal of Applied Economic Sciences* 12: 1362.

Asaleye, Abiola John, Joseph Olufemi Ogunjobi, and Omotola Adedoyin Ezenwoke. 2021. Trade openness channels and labour market performance: Evidence from Nigeria. *International Journal of Social Economics* 48: 1589–607. [CrossRef]

Ascari, Guido, and Argia Maria Sbordone. 2014. The macroeconomics of trend inflation. *Journal of Economic Literature* 52: 679–739. Available online: https://www.aeaweb.org/articles?id=10.1257/jel.52.3.679 (accessed on 19 February 2024). [CrossRef]

Bailey, Ralph William, Viv Bellamy Hall, and Peter Cuthbert Phillips. 1980. A Model of Output, Employment, Capital Formation and Inflation. Available online: https://elischolar.library.yale.edu/cgi/viewcontent.cgi?article=1787&context=cowles-discussion-paper-series (accessed on 19 February 2024).

Balaguer, Jacint, and Manuel Cantavella-Jorda. 2002. Tourism as a long-run economic growth factor: The Spanish case. *Applied Economics* 34: 877–84. [CrossRef]

Balcilar, Mehmet, Sahar Aghazadeh, and George Nkem Ike. 2021. Modelling the employment, income and price elasticities of outbound tourism demand in OECD countries. *Tourism Economics* 27: 971–90. [CrossRef]

Baxa, Jaromir, Miroslav Plašil, and Borek Vašíček. 2015. Changes in inflation dynamics under inflation targeting? Evidence from Central European countries. *Economic Modelling* 44: 116–30. [CrossRef]
Becker, Gary Stanley. 1964. *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*. Chicago: University of Chicago Press.
Bernanke, Ben Shalom. 2007. Inflation expectations and inflation forecasting. In *Speech at the Monetary Economics Workshop of the National Bureau of Economic Research Summer Institute, Cambridge, Massachusetts*. vol. 10, p. 11. Available online: https://corpora.tika.apache.org/base/docs/govdocs1/158/158573.html (accessed on 11 April 2024).
Bernardo, Edgar, Nuno Sousa, and Elisabeth Kastenholz. 2023. Souvenirs in tourism studies: A bibliometric retrospective and future research agenda. *Tourism and Hospitality Management* 29: 249–64. [CrossRef]
Blanchard, Oliver, and Stanley Fischer. 1989. *Lectures on Macroeconomics*. Cambridge: MIT Press. Available online: https://didattica.unibocconi.it/mypage/upload/48751_20101110_064420_LECTURESONMACROECONOMICSBLANCHARDFISCHERPP.75-90YEAR1989.PDF (accessed on 11 April 2024).
Bortis, Heinrich. 2023. Classical-Keynesian Political Economy, not Neoclassical Economics, is the Economic Theory of the Future. *Review of Political Economy* 35: 65–97. [CrossRef]
Bossavie, Laurent, and Çağlar Özden. 2023. Impacts of Temporary Migration on Development in Origin Countries. *The World Bank Research Observer* 38: 249–94. [CrossRef]
Campa, Jose Manuel, and Linda Susan Goldberg. 2005. Exchange rate pass-through into import prices. *The Review of Economics and Statistics* 87: 679–90. [CrossRef]
CARAM Asia. 2010. Remittances: Impact on Migrant Workers' Quality of Life. Available online: https://www.ilo.org/dyn/migpractice/docs/141/Remittances.pdf (accessed on 12 April 2024).
Chant, Sylvia. 1998. Households, gender and rural-urban migration: Reflections on linkages and considerations for policy. *Environment and Urbanisation* 10: 5–22. Available online: https://journals.sagepub.com/doi/pdf/10.1177/095624789801000117 (accessed on 4 April 2024). [CrossRef]
Choudhri, Ehsan Ulla, and Dalia Sophia Hakura. 2006. Exchange rate pass-through to domestic prices: Does the inflationary environment matter? *Journal of international Money and Finance* 25: 614–39. [CrossRef]
Chowdhury, Emon Kalyan, Bablu Kumar Dhar, and Md Abu Issa Gazi. 2023. Impact of Remittance on Economic Progress: Evidence from Low-Income Asian Frontier Countries. *Journal of the Knowledge* 14: 382–407. [CrossRef]
Cohen, Jeffrey Howard, Dilip Ratha, and Ibrahim Sirkeci. 2012. *Migration and Remittances during the Global Financial Crisis and Beyond*. No. 69313. Washington, DC: The World Bank, pp. 1–470.
Conard, Joseph Wilton. 2023. *Introduction to the Theory of Interest*. Berkeley: University of California Press.
Cucovic, Anita, Bashkim Kryeziu, and Ardian Berisha. 2023. The Impact of Visa Liberalization on Economic Opportunities, Living Conditions and Quality of Life in Kosovo. *International Journal of Sustainable Development & Planning* 18: 4005–13.
Dempster, Helen, and Cassandra Zimmer. 2020. *Migrant Workers in the Tourism Industry: How Has COVID-19 Affected Them, and What Does the Future Hold?* CGD Policy Paper 173. Washington, DC: Center for Global Development.
Department of National Treasury. 2023 Budget Review. Transformation for Inclusive Growth. Extract from the 2017 Budget Review. Available online: https://www.treasury.gov.za/documents/national%20budget/2017/review/BR1.%20Transformation%20for%20growth.pdf (accessed on 10 February 2024).
Ding, Lili, Mingliang Wu, Zheng Jiao, and Yongyou Nie. 2022. The positive role of trade openness in industrial green total factor productivity—Provincial evidence from China. *Environmental Science and Pollution Research* 29: 6538–51. [CrossRef]
Diodato, Dario, Ricardo Hausmann, and Frank Neffke. 2023. The impact of return migration on employment and wages in Mexican cities. *Journal of Urban Economics* 135: 103557. [CrossRef]
Docquier, Frédéric, and Hillel Rapoport. 2012. Globalisation, Brain Drain, and Development. *Journal of Economic Literature* 50: 681–730. Available online: https://www.jstor.org/stable/23270475 (accessed on 19 February 2024). [CrossRef]
Dorn, Florian, Clemens Fuest, and Niklas Potrafke. 2022. Trade openness and income inequality: New empirical evidence. *Economic Inquiry* 60: 202–23. [CrossRef]
Engle, Robert Fry, and Clive William John Granger. 1987. Co-integration and error correction: Representation, estimation, and testing. *Econometrica* 55: 251–76. [CrossRef]
Ferdous, Jannatul. 2024. Gender, Migration, and Development: Theoretical Focus. In *Gendered Migrations*. International Perspectives on Migration (SSM). Singapore: Springer. [CrossRef]
Ghani, Sajid, and Nestor Alejandro Morgandi. 2023. Return migration and labour market outcomes in South Asia: A CGE exploration. *Journal of Ethnic and Migration Studies* 49: 5153–68. [CrossRef]
Ghosh, Sudeshna. 2022. Modelling inbound international tourism demand in Australia: Lessons from the pandemics. *International Journal of Tourism Research* 24: 71–81. Available online: https://onlinelibrary.wiley.com/doi/epdf/10.1002/jtr.2483 (accessed on 10 February 2024). [CrossRef]
Gopinath, Gita, and Oleg Itskhoki. 2010. Frequency of price adjustment and pass-through. *The Quarterly Journal of Economics* 125: 675–727. [CrossRef]
Granger, Clive William John. 1969. Investigating causal relations by econometric models and cross-spectral methods. *Econometrica* 37: 424–38. Available online: https://www.jstor.org/stable/1912791 (accessed on 10 February 2024). [CrossRef]

Hamed, Alex Michael. 2022. Remittance: A New Instrument for Change--Understanding the Impact of Remittances on Home Countries Development. Ph.D. dissertation, Old Dominion University, Norfolk, VA, USA.
Hamilton, James Douglas. 1996. Specification Testing in Markov-Switching Time-Series Models. *Journal of Econometrics* 70: 127–57. [CrossRef]
Harris, Richard, and Robert Sollis. 2003. *Applied Time Series Modelling and Forecasting*. New York: Wiley. Available online: https://durham-repository.worktribe.com/output/1127788 (accessed on 10 February 2024).
Holland, Arthur Steven. 1986. Wage indexation and the effect of inflation uncertainty on employment: An empirical analysis. *The American Economic Review* 76: 235–43. Available online: https://www.jstor.org/stable/1804141 (accessed on 19 April 2024).
Hossain, Munshi Israil. 2020. Impacts of social remittances on economic activities: Labour migration from a village of Bangladesh to Malaysia, Migration and Development. *Migration and Development* 11: 273–90. [CrossRef]
Hussain, Muhammad Noshab. 2023. Evaluating the impact of air transportation, railway transportation, and trade openness on inbound and outbound tourism in BRI countries. *Journal of Air Transport Management* 106: 102307. [CrossRef]
Hutsaliuk, Oleksii, Zinaida Smutchak, Oksana Sytnyk, Nataliia Krasnozhon, Olha Puhachenko, and Antonina Zarubina. 2020. Mass labour migration in the vector of international tourism as a determinant sign of modern globalisation. *Revista Turismo Estudos e Práticas-RTEP/UERN* 3: 1–16.
International Labour Organisation. 2022. The Future of Work in the Tourism Sector: Sustainable and Safe Recovery and Decent Work in the Context of the COVID-19 Pandemic. Report for the Technical Meeting on COVID-19 and Sustainable Recovery in the Tourism Sector (Geneva, 25–29 April 2022). TMSRTS/2022. Available online: https://webapps.ilo.org/wcmsp5/groups/public/---ed_dialogue/---sector/documents/meetingdocument/wcms_840403.pdf (accessed on 19 February 2024).
Kabeer, Naila. 2000. *The Power to Choose: Bangladeshi Women and Labour Market Decisions in London and Dhaka*. London: Verso.
Khalid, Usman, Luke Emeka Okafor, and Muhammad Shafiullah. 2020. The Effects of Economic and Financial Crises on International Tourist Flows: A Cross-Country Analysis. *Journal of Travel Research* 59: 315–34. [CrossRef]
Khan, Muhammad Azam. 2024. The impact of migrant remittances on economic development: Empirical evidence from the developing world. *Journal of Social and Economic Development* 2024: 1–29. [CrossRef]
Kim, Kijin, Zemma Ardaniel, Aiko Kikkawa, and Benjamin Endriga. 2024. Bilateral Remittance Inflows to Asia and the Pacific: Countercyclicality and Motivations to Remit. *Asian Development Review* 41: 1–44. Available online: https://www.worldscientific.com/doi/pdf/10.1142/S0116110524500070 (accessed on 1 May 2024). [CrossRef]
King, Russell, and Julie Vullnetari. 2010. Gender and remittances in Albania: Or why 'are women better remitters than men?'. *Gender & Development* 18: 475–90. Available online: https://hdl.handle.net/10779/uos.23320886.v1 (accessed on 10 February 2024).
Krugman, Paul Robin, and Robin Elizabeth Wells. 2015. *Macroeconomics by Paul & Wells, Robin Krugman (2015-05-14)*, 4th ed. Basingstoke: Palgrave Macmillan.
Kumar, Nikeel, Ronald Ravinesh Kumar, Arvind Patel, Syed Jawad Hussain Shahzad, and Peter Josef Stauvermann. 2020. Modelling inbound international tourism demand in small Pacific Island countries. *Applied Economics* 52: 1031–47. [CrossRef]
Liew, Venus Khim-Sen. 2004. Which lag length selection criteria should we employ? *Economics Bulletin* 3: 1–9.
Matz, Julia Anna, and Linguère Mously Mbaye. 2023. Migration and the Autonomy of Women Left Behind. *The European Journal of Development Research* 35: 1059–79. [CrossRef]
Mehedintu, Anca, Georgeta Soava, and Mihaela Sterpu. 2020. Remittances, Migration and Gross Domestic Product from Romania's Perspective. *Sustainability* 12: 212. [CrossRef]
Meyer, Dietmar, and Adela Shera. 2017. The impact of remittances on economic growth: An econometric model. *EconomiA* 18: 147–55. [CrossRef]
Mora-Rivera, Jorge, and Fernando García-Mora. 2021. International remittances as a driver of domestic tourism expenditure: Evidence from Mexico. *Journal of Travel Research* 60: 1752–70. [CrossRef]
Niklas, Britta, and Elkhan Richard Sadik-Zada. 2019. Income inequality and status symbols: The case of fine wine imports. *Journal of Wine Economics* 14: 365–73. [CrossRef]
Noushad, Abdulrahiman Palassery, Jajati Keshari Parida, and Ravi Kanth Raman. 2022. Low-skilled emigration, remittances and economic development in India. *Migration and Development* 11: 389–419. [CrossRef]
Ogunwole, Elizabeth Bolatito, John Abiola Asaleye, Mosab Ibraheem Tabash, Adel Ahmed, Yasmeen Elsantil, and Adedoyin Isola Lawal. 2024. Debt service and information communication technology on employment and productivity: Short-and long-run implications. *Scientific African* 24: e02227. [CrossRef]
Oladipo, Olufemi Adebayo, Francis Iyoha, Samuel Adeniran Fakile, Abiola John Asaleye, and Felix David Eluyela. 2019. Do government taxes have implications on manufacturing sector output? Evidence from Nigeria. *Journal of Management Information and Decision Sciences* 22: 181–90.
Oliinyk, Olena, Yuriy Bilan, Halyna Mishchuk, Oleksandr Akimov, and Laszlo Vasa. 2021. The impact of migration of highly skilled workers on the country's competitiveness and economic growth. *Montenegrin Journal of Economics* 17: 7–19. Available online: https://publikace.k.utb.cz/handle/10563/1010443 (accessed on 20 January 2024). [CrossRef]
Pal, Shreya, Muhammed Ashiq Villanthenkodath, Gupteswar Patel, and Mantu Kumar Mahalik. 2022. The impact of remittance inflows on economic growth, unemployment and income inequality: An International evidence. *International Journal of Economic Policy Studies* 16: 211–35. [CrossRef]

Pesaran, Mohammad Hashem, and Yongcheol Shin. 1995. *An Autoregressive Distributed Lag Modelling Approach to Co-Integration Analysis*. Cambridge: Department of Applied Economics, University of Cambridge, vol. 9514.
Pesaran, Mohammad Hashem, Yongcheol Shin, and Richard John Smith. 2001. Bounds testing approaches to the analysis of level relationships. *Journal of Applied Econometrics* 16: 289–326. [CrossRef]
Pfeiffer, Lisa, Susan Richter, Peri Fletcher, and John Edward Taylor. 2008. Gender in economic research on international migration and its impacts: A critical review. *The International Migration of Women* 11–50. Available online: https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=075cd2b15f4fdb435afe29d601ef1791dac72907 (accessed on 20 January 2024).
Posel, Dorrit. 2004. Have Migration Patterns in Post-Apartheid South Africa Changed? *Journal of Interdisciplinary Economics* 15: 277–92. [CrossRef]
Privarova, Magdaléna, Marta Martincova, Karol Trnovský, and Dušan Hačár. 2022. Labour migration and tourism flows: The case of the EU. *Journal of Tourism and Services* 24: 271–89.
Rahman, Md Hasanur, Liton Chandra Voumik, Shohel Md Nafi, and Grzegorz Zimon. 2023. Effects of tourism and other macroeconomic variables on women's employment in agricultural, industry and service sectors: Evidence from African countries. *Current Issues in Tourism* 27: 2287–307. [CrossRef]
Ratha, Dilip, Vandana Chandra, Eung Ju Kim, Sonia Plaza, and William Shaw. 2023. *Migration and Development Brief 39: Leveraging Diaspora Finances for Private Capital Mobilization*. Washington, DC: World Bank. Available online: https://knomad.org/sites/default/files/publication-doc/migration_development_brief_39.pdf (accessed on 20 January 2024).
Romer, David. 2019. *Advanced Macroeconomics*, 5th ed. Chicago: McGraw-Hill Companies, Inc., ISBN10: 1260185214/ISBN13: 9781260185218.
Roubini, Nouriel, and David Backus. 1998. MBA Lectures in Macroeconomics. Stern School of Business, NYU. Available online: https://pages.stern.nyu.edu/~nroubini/LNOTES.HTM (accessed on 20 January 2024).
Russell, Sharon Stanton. 1986. Remittances from international migration: A review in perspective. *World Development* 14: 677–96. [CrossRef]
Saani, Mohammed Ridwan, Abdul-Malik Abdulai, and Mubarik Salifu. 2023. Unemployment and remittances nexus in Ghana: The gender perspective. *Cogent Economics & Finance* 11: 2243068. [CrossRef]
Sadik-Zada, Elkhan Richard, and Britta Niklas. 2021. Business cycles and alcohol consumption: Evidence from a non-linear panel ARDL approach. *Journal of Wine Economics* 16: 429–38. [CrossRef]
Salazar, Noel Bruno. 2022. Labour migration and tourism mobilities: Time to bring sustainability into the debate. *Tourism Geographies* 24: 141–51. [CrossRef]
Santos, Rossana. 2023. Return migration and rural tourism development in Portugal. *Tourism Planning & Development* 20: 636–59. [CrossRef]
Scogin, Shana. 2024. Is male out-migration associated with women's participation in post-disaster rebuilding? Evidence from Nepal after the 2015 Gorkha earthquake. *Disasters* 48: e12596. [CrossRef]
Seetanah, Boopen, and Sheereen Fauzel. 2023. The moderating role of digitalisation in the tourism-growth nexus: Evidence from small island economies. *Journal of Policy Research in Tourism, Leisure and Events* 2023: 1–21. [CrossRef]
Sevencan, Ayse. 2023. Remittances, unemployment, growth and development: A panel cointegration approach. *Applied Economics Letters* 30: 663–68. [CrossRef]
Shin, Yongcheol, Byungchul Yu, and Matthew Greenwood-Nimmo. 2014. Modelling Asymmetric Co-integration and Dynamic Multipliers in a Non-linear ARDL Framework. In *Festschrift in Honor of Peter Schmidt*. Edited by Robin Sickles and William Horrace. New York: Springer. [CrossRef]
Simionescu, Mihaela, Daniel Ciuiu, Yuriy Bilan, and Wadim Strielkowski. 2016. GDP and net migration in some eastern and south-eastern countries of Europe. A panel data and Bayesian approach. *Montenegrin Journal of Economics* 12: 161–75. [CrossRef]
Sims, Christopher Albert. 2002. Solving linear rational expectations models. *Computational Economics* 20: 1–20. Available online: https://www.proquest.com/scholarly-journals/solving-linear-rational-expectations-models/docview/215553520/se-2?accountid=36534 (accessed on 19 February 2024). [CrossRef]
Sobiech, Izabela. 2019. Remittances, finance and growth: Does financial development foster the impact of remittances on economic growth? *World Development* 113: 44–59. [CrossRef]
Sousa, Nuno, Luzia Oca Gonzalez, and Vera Mendonça. 2022. Gender (In) Equality in Local Employment: A Perspective of Municipal Executives. *Revista Portuguesa de Estudos Regionais* 61: 121–34. [CrossRef]
Stark, Oded, and David Edward Bloom. 1985. The New Economics of Labor Migration. *American Economic Review* 75: 173–78. Available online: https://www.jstor.org/stable/1805591 (accessed on 10 February 2024).
Statistics South Africa. 2022. The South African Tourism Sector Struggled in 2020. Republic of South Africa. Available online: https://www.statssa.gov.za/?p=16182 (accessed on 19 February 2024).
Statistics South Africa. 2024. Economic, Social and Political Empowerment Are Critical for Achieving Gender Equality in SA—South Africa Department of Statistics, South Africa. Available online: https://www.statssa.gov.za/?p=15833#_ftn1 (accessed on 19 February 2024).
Stellenbosch Business School. 2023. The Tourism Industry in South Africa: Where to From here? Stellenbosch University Blog, South Africa. Available online: https://www.stellenboschbusiness.ac.za/blog/2023-10-10-tourism-industry-south-africa-where-here (accessed on 10 February 2024).

Tabash, Mosab Ibraheem, Suhaib Anagreh, Bilal Haider Subhani, Mamdouh Abdulaziz Saleh Al-Faryan, and Krzysztof Drachal. 2023. Tourism, remittances, and foreign investment as determinants of economic growth: Empirical evidence from selected Asian economies. *Economies* 11: 54. [CrossRef]

Todaro, Michael Paul, and Stephen Charles Smith. 2003. *Economic Development*, 8th ed. The Addison-Wesley Series in Economics; Harlow: Essex Pearson Education Limited United Kingdom, ISBN 0-273-65549-3.

Wang, Donghui, Annelise Hagedorn, and Guangqing Chi. 2021. Remittances and household spending strategies: Evidence from the Life in Kyrgyzstan Study, 2011–2013. *Journal of Ethnic and Migration Studies* 47: 3015–36. [CrossRef] [PubMed]

Williams, Allan Morgan, and Colin Michael Hall. 2000. Tourism and migration: New relationships between production and consumption. *Tourism Geographies* 2: 5–27. [CrossRef]

Withers, Matt, Sophie Henderson, and Richa Shivakoti. 2022. International migration, remittances and COVID-19: Economic implications and policy options for South Asia. *Journal of Asian Public Policy* 15: 284–99. [CrossRef]

Wood, Megan Epler. 2007. The role of sustainable tourism in international development: Prospects for economic growth, alleviation of poverty and environmental conservation. In *Critical Issues in Ecotourism*. London: Routledge, pp. 158–84.

World Bank. 2023. An Analysis of Trends in Cost of Remittance Sciences. Remittance Prices Worldwide Quarterly, Issue 47, September 2023. The World Bank Group. Available online: https://remittanceprices.worldbank.org/sites/default/files/rpw_main_report_and_annex_q323_1101.pdf (accessed on 10 February 2024).

World Tourism Organization. 2021. *International Tourism Highlights*, 2020 ed. Madrid: UNWTO. [CrossRef]

World Travel and Tourism Council. 2024. *Women Are a Driving Force for Travel & Participation in Travel & Tourism*. London: World Travel & Tourism Council. Available online: https://wttc.org/LinkClick.aspx?fileticket=CZndTql2tpg=&portalid=0 (accessed on 1 May 2024).

Xuanming, Pan, Toyo Amègnonna Marcel Dossou, Kouessi Pascal Dossou, and Alastaire Sèna Alinsato. 2024. The impact of tourism development on social welfare in Africa: Quantile regression analysis. *Current Issues in Tourism* 27: 1159–72. [CrossRef]