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Reverse Immigration Effects for Expatriates in Oman During the COVID-19 Pandemic Shock

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Abstract The COVID-19 pandemic produced dramatic aftershocks throughout the global labor markets with rapid changes in differential employment opportunities. Labor market disruptions were sparked by the pandemic in Oman, where expatriates live and work. For the first time, the analysis investigates certain hypotheses relevant to the Aspirations-Capabilities framework and whether these hypotheses survive the pandemic exogenous shock. More specifically, testing these hypotheses, the analysis investigates whether the COVID-19 pandemic shock had a negative impact on expatriates in the host country, as well as it identifies heterogeneous effects among different ethnic groups. Using Datastream data, this analysis investigates the sudden drop in ethnic expatriates in Oman using ordinal least squares and instrumental variable estimations. A steeper decline in the expatriate employment rate reflects a disproportionately adverse impact that the initial phase of the COVID-19 pandemic had on immigrant employment. The findings identify substantial ethnic differences when reverse immigratory effects are exhibited.

Keywords Reverse immigration effects · Expatriates · Oman · COVID-19 pandemic shock

JEL Classification F22 · J10 · J61 · C22

Introduction

In crisis events, immigrant workers are among the hardest hit and most vulnerable to displacement, unemployment, and income loss. This work highlights the understudied aspect of repatriation, which the present data analysis unpacks.

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Conflicts, social unrest, natural disasters and economic crises are considered immigration disruptions to regular labor immigration patterns (Bylander 2018), with the pandemic being no different from a natural disruptor (Liao 2020). Human mobility restrictions in response to COVID-19 created disorder among immigrants (Dommaraju 2020). Expatriates have been associated with executive assignments (Borrmann 1968; Negandhi & Estafen, 1965). Immigrant workers faced adverse impacts, such as long working hours, isolation, poor quality of living standards, social discrimination, and mental pressures. Their dependents at home faced financial strains due to reduced cash flow from their working relatives. Moreover, immigrant workers were in constant fear of being sent back to their home countries due to the impact of COVID-19 in their host countries (Karim et al., 2020). To curb COVID-19 transmission, most countries where immigrant workers work enforced lockdowns, which reduced working hours and job opportunities. Previous research suggested that expatriates were satisfied only when their international assignment or travel included options for career development, job enrichment and the presence of a supportive family (Kim & Tung, 2013), and relocation was motivated by financial reasons (Lett & Smith, 2009).

With these prospects gone due to the pandemic, the environment where employees were assigned became seriously adverse, if not hostile. In the past, countries saw the positive effects of immigration in boosting economic prosperity in the host country (Morley 2006), skill endowment and productivity (Borjas 1994). Since there is a lack of consensus on how expatriates should be defined, the conception of McNulty and Brewster (2017) was used. They critically conceptualized expatriates as international business travelers (IBTs) and commuters, virtual workers, assigned employees, self-initiated labor seekers, migrants (skilled and unskilled), and sojourners (retirees and students). The present study draws attention to Oman, a Persian Gulf country, and explores some early effects of reverse immigration. Looking at expatriate data that include what such definitions tend to capture, the study finds that despite reverse effects, these are definite differences between ethnic groups. This suggests that possible reverse effects in immigratory flows (often induced by exogenous shocks) should not be examined only in the aggregate. Expatriate populations manifest different dynamics depending on their ethnic background, social networks or even bilateral agreements between countries.

The Aspirations-Capabilities framework aspires to capture how macroeconomic factors influence ideas (e.g., expectations) and resources (e.g., financial or human) conducive to the decision to migrate or not. For the first time in the English language literature, the study investigates a set of hypotheses to test the Aspirations-Capabilities framework and whether this hypothesis survives the robustness of the pandemic exogenous shock. The analysis explores whether the COVID-19 pandemic shock negatively impacts expatriates in the host country, as well as identifies heterogeneous effects across different ethnic groups. The focus on Oman deviates from prior research focused solely on a source country and a host country, where the major concern is the reason individuals choose to migrate from a less developed to a more developed country (Karemera et al., 2000; Serlenga & Shin, 2021). Instead, the focus is on the exogenous effect of the COVID-19 shock on ethnic expatriates in the host country.

The Case of Oman

During the COVID-19 pandemic in Oman,[1] the employment rate for natives and expatriates declined. Specifically, the number of expatriates in Oman dramatically declined (Fig. 1). Governments in the Persian Gulf considered existing immigration levels as already too high and expressed the desire to lower them by restricting the inflows of expatriates competing with nationals (Al-Ali 2008).

The oil revenue euphoria of the 1960s and 1970s began in Oman with ambitious development projects that necessitated the availability of a skilled workforce, which Oman did not have and needed to attract. Foreign workers transformed the oil and gas sector's infrastructure and local labor needs. Omanisation falls under labor localization, where recruitment and development of local labor aim to reduce dependence upon expatriate flows (Waxin & Bateman, 2016).[2] However, these localization programs were unsuccessful as businesses struggled to conform (Ryan 2016). Ministerial statements about the need for indigenization of the labor force increased as unemployment among nationals increased (Barrington & Lewis, 2021; Musalmy 2021). The immigration flow of expatriates in the Persian Gulf region is not a new phenomenon (Haak-Saheem & Brewster, 2017). The countries successfully attracted foreign direct investments and specialized talent via the international labor market, forming local organizational hierarchies where locals ran the companies. A high number of blue-collar workers were from Asia. The main countries sending immigrants to the Persian Gulf included India, Pakistan, Bangladesh, the Philippines, Sri Lanka, and Indonesia. For many of these countries, immigration to the Persian Gulf became the only solution to fight low economic development and pressure for jobs for new entrants.

The majority of employees in the private sector are foreign expatriates, while the public sector remained the prime employer of nationals across the Persian Gulf states (Al-Waqfi & Forstenlechner, 2014). Many expatriates are mainly economically driven, following attractive salary packages and no income tax. They left their countries to escape unemployment, while their families at home depended on annual remittance transfers.

The government of Oman initiated an operation known as Omanisation (Ministry of Endowment and Religious Affairs 2022), which allotted subsidies to companies for replacing expatriates with trained Omanis. It initially started in 1988 and took effect under the first Omanisation laws in 1994 passed by the Ministry of Social Affairs and Labor. The laws imposed quotas on nationals in various private sectors (Mashood et al., 2009). In 1997 a monitoring committee was formed and put in charge of implementing the quotas. Companies that achieved their quotas were awarded a green card, which gave them access to preferential treatment by the Ministry. Despite governmental efforts, the most deterring obstacles to Omanisation in the private sector were low compensation, limited benefits, and lack of awareness of employment opportunities (Al-Lamki 1998). Most prospective Omani employees are unhappy with private sector

[1] The same is true in other Persian Gulf countries, such as Kuwait, Saudi Arabia, and the United Arab Emirates (UAE).

[2] Ethnically in the Emirates, Indians are beginning to witness an exodus of long-term expatriates (Menon & Vadakepat, 2020) because of diminishing job security, bleak re-employment opportunities, including salary cuts, backlogs of payments, paused or cancelled employment contracts and resultant flights of workers, which resulted in a growing apprehension about their foreign residency.

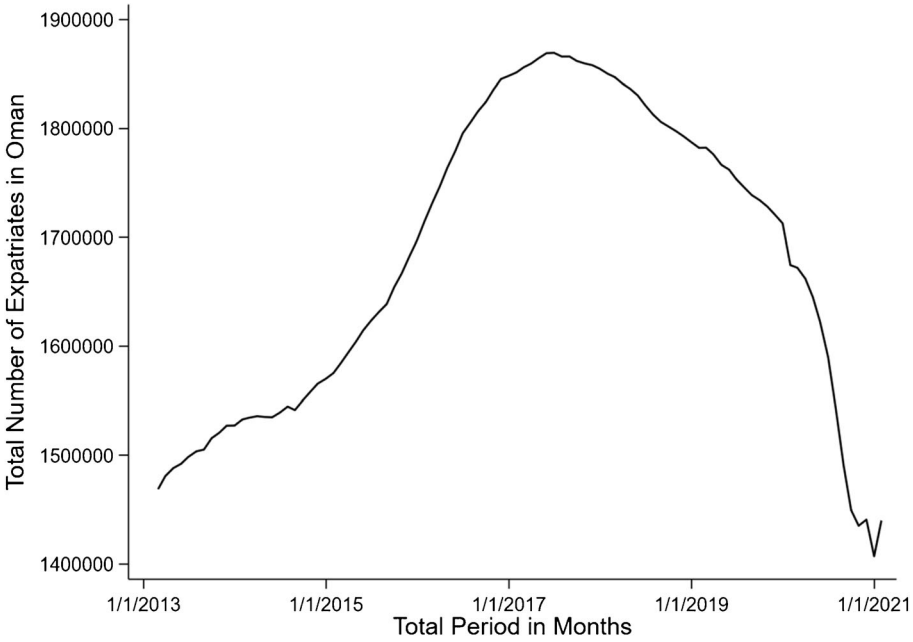

Fig. 1 Total number of expatriates in Oman from February 2013 until February 2021. Data source: Datastream database (Thomson Reuters 2022)

salaries, retirement plans, social security, and educational assistance. In addition, vacations are limited, sick leave is restricted, and they have to work long hours.

Expatriate Theory

Thus far, the literature on migration has focused on people who migrate, with prominent scholars calling for an age of migration (Castles et al., 2014), and people who choose to stay (Schewel 2020). De Haas (2021) reframed the arising dichotomy that migratory agency (moving or staying) is the ability to choose where to stay and is called the Aspirations-Capabilities framework. An attempt to integrate current knowledge splits into acquiescent preferences and the ability to move through constraints, which can be political (Massey et al., 1993) or related to financial constraints (Van Hear 2014), which can be hazardous for household survival strategies that attempt to minimize associated economic risks and enhance capital accumulation. Social networks reduce the economic and psychological costs of making the trip and build transnational communities (Boyd 1989; Hagan 1998), often demanding recurrent trips (Parrado & Cerrutti, 2003). Immigration decisions are not made in isolation by individual actors but by larger units (households) that collectively maximize income and minimize the risk associated with market failures in the source country (Katz & Stark, 1986; Stark & Bloom, 1985; Stark & Levhari, 1982). Risk diversification is applied when economic conditions deteriorate in the home country, and immigrant remittances in the host country upport households back in the immigrants' home country. Push and pull models of immigration have been criticized for overlooking intangible elements of

individuals' expectations. Fischer and Malmberg (2001) reported that settled people do not move, while risk can change the prospects of staying at home or moving elsewhere (Czaika 2015).

This paper tests the capability hypothesis of the Aspirations-Capability framework on immigration. Unemployment is by itself a factor of mobility and immobility, suggesting that immigration is caused by a geographic difference in the supply and demand of labor, thus causing workers to move. The literature has explored the factors that motivate individuals to move from low-wage to high-wage countries (Harris & Todaro, 1970; Todaro 1969). At the same time, higher earnings or job opportunities in origin countries are accompanied by declines in the propensity to emigrate. Immigration is a costly move (Lewis 1954; Ravenstein 1885), and only an increase in income in the origin country will reduce immigration (Roy 1951; Borjas 1987). With COVID-19 making the cost to move very high, these flows declined and reversed as foreign worker demand evaporated.

The model of Borjas (1989) and the survey by Greenwood (1975) suggest that the choice of a country for immigration purposes depends on the host country's characteristics. Karemera et al. (2000) found that migration is negatively related to unemployment (or positively to employment) in the destination country. The country's destination income is negatively related to immigration (Clark et al., 2007), while high country risks and conflicts can positively affect migration (Docquier 2018). Bylander (2018) and Dommaraju (2020) articulated that pandemics act as shocks, causing disruptions in migratory flows. It can be assumed the COVID-19 pandemic will exert similar shocks on intentions to stay. Thus, the following hypothesis is tested:

> **H_1:** *The COVID-19 pandemic has a negative effect on expatriate levels in the host country.*

It is also interesting to see how the Aspirations-Capabilities framework is universal and persists in testing multiculturalism or different ethnic minorities in the host country. For receiving countries, immigration most certainly would lead to the settlement or formation of ethnic communities due to the social nature of the migration process (Castles 2000). However, immigrants arrive from different cultural backgrounds, carry with them different traditions, and speak different languages. Cultural diversity does not necessarily indicate equality between ethnic groups, and certain groups might benefit over others (Castles 2002). Thus, it is hypothesized that ethnic groups may vary in how they are affected by a pandemic shock in their host country.

> **H_2:** *The COVID-19 pandemic positively affects expatriate levels in every ethnic group in the host country.*

Migration Determinants

Researchers suggest that economic growth per worker is higher in economies more open to international immigration (Chen & Fang, 2013). Studying the nexus between immigration and growth and how ethnic immigration affects the economic performance of destination countries has been a very active research topic (Ager & Brückner, 2013;

Alesina & Ferrara, 2005; Bove & Elia, 2017; De Haan 1999; Gören 2014). The link between economic growth and immigration has not only been studied for host countries but also for source countries, often linked with the positive effects of the brain drain (Chen 2006; Mountford 1997; Rodriguez 1975). To this end, this variable is a valuable addition to the estimation model. The underlying idea is a boost to labor productivity, making businesses or countries more competitive in the international markets.

H_3: *Higher production positively affects expatriate levels in the host country.*

Apart from the growth effects, inflation usually reduces wages as the labor pool increases and employers have more options to choose from. Immigration coupled with the host country's labor supply elasticity can put downward pressure on inflation (thus flattening the Phillips curve), a channel introduced by Bentolila et al. (2008). Furlanetto and Robstad (2019) studied the effects of immigration in Norway which positively impact inflation because of the exchange rate depreciation due to remittances. Lach (2007) found that immigrants in Israel reduce product prices due to the increased aggregate demand, higher price elasticities and lower search costs compared to natives. Cortes (2008) posited that the decrease in the prices of goods and services can be attributed to immigrant orientation to low-valued aggregate demand.

H_4: *Inflation positively affects expatriate levels in the host country.*

In addition to growth and inflation, employment was also considered. In economic theory, immigrants are generally motivated by the returns (or opportunities) expected in their decision to move. Individuals choose to immigrate if the present value of the expected benefits exceeds the move's accrued costs (Pessino 1991; Sjaastad 1962). The higher the unemployment rate, the more intensified the search process becomes for individuals to immigrate (DaVanzo 1978; Di Pietro 2005; Goss & Schoening, 1984; Karemera et al., 2000). The decision to immigrate is governed by the income differential between the home and host destinations (Harris & Todaro, 1970; Pissarides & McMaster, 1990; Todaro 1969), where immigrants can access employment opportunities through the small business sector (Barrett & Burgess, 2008). Immigrant workers offer employers flexibility as immigrants often work longer hours than domestic workers (Lee 1999).

H_5: *Higher employment has a positive effect on expatriate levels in the host country.*

Immigrants are also faced with economic shocks and are the first who are pushed to move as they are constantly searching for stability (Ramos 2020; Weiner 1992). Conflict, instability, and environmental degradation continue to displace immigrants from their home countries, searching for regional stability (Widgren 1990). At times of political and economic uncertainty, immigrants desire stability and settlement for themselves and their families (Pratsinakis et al., 2020).

H_6: *Higher political stability has a positive effect on expatriate levels in the host country.*

Data and Methodology

The data were obtained from the Datastream database (Thomson Reuters 2022), a subscription data-sharing portal, which provided access to Oman's Sultanate data. The data cover the period from February 2013 to February 2021. In terms of the modelling approach, the following equation serves the empirical goal of the paper:

$$\log(Expatriates_t) = a + \beta_1 \log(Y_t) + \beta_2 \log(P_t) + \beta_3 \log(Riskability_t) + \beta_4 (DCOVID19) + \varepsilon_t \quad (1)$$

where a is the constant term, Y_t denotes a real-economy variable, such as industrial production or employment, P_t is the consumer price index, $Riskability_t$ is an index measuring the country's political stability, and $DCOVID19$ is a dummy variable that equals one during the pandemic period and zero otherwise. The empirical analysis provides estimates relevant to the β_4 coefficient that identifies the pandemic event's impact on the expatriates in Oman. The explanatory variables are employment, inflation, industrial production and stability risk. Table 1 reports specific summary statistics. Figure 2 depicts the model with all the tested hypotheses.

Empirical Results

First, the empirical analysis investigated the presence of stationarity across all variables included in Eq. (1). Table 2 reports the generalized least squares (GLS) test, recommended by Elliott et al. (1996), which illustrates the presence of a unit root in levels

Table 1 Summary statistics for February 2013 to February 2021; N=97

Variables	Mean	SD	Min	Max
Expatriates				
Total	1,694,615.00	130,616.40	1,468,721.00	1,869,416.00
Philippines	39,137.35	7823.23	27,271.00	49,489.00
Nepal	14,777.20	2273.02	1645.00	17,621.00
Sri Lanka	17,468.31	4246.29	205.00	23,099.00
India	641,009.70	41,864.52	517,702.00	695,251.00
Pakistan	220,176.10	11,224.17	178,883.00	237,807.00
Egypt	27,021.43	4764.11	2681.00	35,048.00
Bangladesh	605,840.90	76,200.20	449,725.00	705,326.00
Other	77,759.89	19,649.94	10,072.00	108,933.00
Employment	218,871.73	29,811.23	171,901.00	262,333.00
CPI	103.84	1.87	100.30	106.70
Industrial Production	978.00	34.66	847.67	1117.67
Risk Stability	3.70	0.96	3.00	5.00

Notes: SD = standard deviation, Data source: Datastream database (Thomson Reuters 2022)

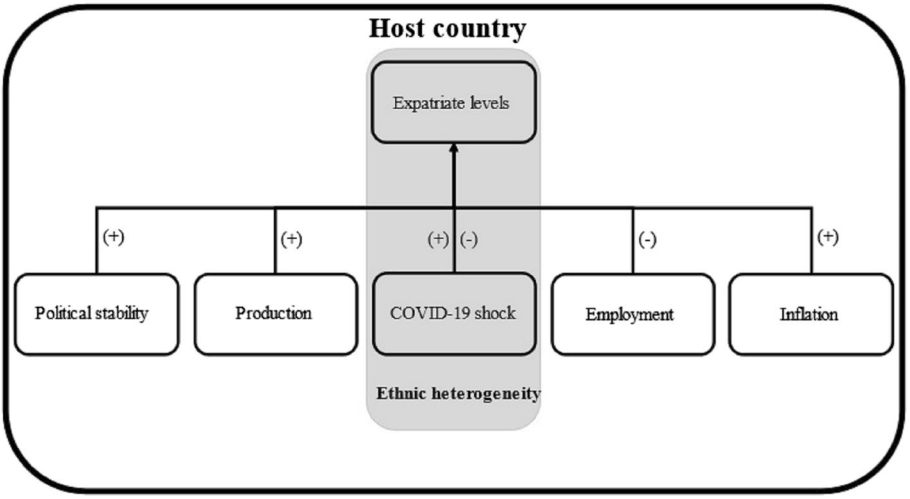

Fig. 2 Hypotheses tested

across all variables under consideration. The unit root disappears when first differences are considered.

The GLS test may provide biased and spurious results due to the absence of information about structural breakpoints in the series. Therefore, the Zivot and Andrews (2002) test was applied. They consider a model that tests the stationarity properties of the variables in the

Table 2 GLS unit root test & Zivot-Andrews unit root test with a structural break: February 2013 to February 2021, N=97

Variables	GLS Test		Zivot-Andrews	
Expatriates	Levels	First Differences	Test T_a	Date
Total	−1.34(3)	−6.42(2)***	−6.128***	April 2020
Philippines	−1.28(3)	−6.29(1)***	−6.093***	April 2020
Nepal	−1.19(2)	−6.07(1)***	−5.985***	April 2020
Sri Lanka	−1.35(3)	−6.36(2)***	−6.259***	April 2020
India	−1.39(2)	−6.25(1)***	−6.116***	April 2020
Pakistan	−1.26(3)	−6.34(2)***	−6.472***	April 2020
Egypt	−1.45(2)	−6.51(1)***	−5.973***	April 2020
Bangladesh	−1.39(2)	−6.37(1)***	−6.642***	April 2020
Other	−1.40(3)	−6.28(2)***	−6.217***	April 2020
Employment	−1.16(3)	−6.14(2)***		
CPI	−1.29(3)	−6.52(1)***		
Industrial production	−1.33(3)	−6.31(1)***		
Risk stability	−1.38(3)	−6.47(1)***		

Notes: Rejection of the null hypothesis for GLS indicates stationarity. Lags in parentheses denote the number of lags included in the test, determined using the Akaike information criterion. ***: $p \leq 0.01$. Data source: Datastream database (Thomson Reuters 2022)

presence of a structural breakpoint when there is a one-time change in the intercept and the trend of the variables under study. The null hypothesis of the unit root break date indicates that the series is not stationary. The test fixes all points as having the potential for time breaks and provides an estimation through regression analysis for all possible breakpoints successively. All the series show a unit root at their level, integrated at one (I(1)) (Table 2). Thus, the series is stationary in first differences. Simultaneously, the breakpoint coincides with April 2020, the month when Oman experienced an important increase in COVID-19 confirmed cases. Hence, for the purpose of the regression analysis, a dummy variable (*DCOVID19*) was explicitly introduced that takes the value of one from April 2020 to September 2020 and zero otherwise.

Table 3 reports the ordinary least squares (OLS) and instrumental variable (IV) estimation results using both industrial production and employment as alternative controls (Panels A and B, respectively). Simultaneously, the dependent variable is total expatriates, and all variables (except the dummy) are expressed in logarithms.

Table 3 OLS & IV estimates: Total expatriates, February 2013 to February 2021, N=97

	OLS		IV	
Variables	Coefficients	p-values	Coefficients	p-values
Panel A				
Constant	1.086**	0.04	1.042**	0.05
ΔIndustrial production	−0.328***	0.00	−0.307***	0.00
Inflation	0.082***	0.00	0.071***	0.00
ΔRisk stability	0.235***	0.00	0.224***	0.00
DCovid-19	0.328***	0.00	0.317***	0.00
Diagnostics				
Adjusted R^2	0.82		0.77	
Durbin-Watson	2.02			
Sargan test			1.64	0.48
Number of instruments			7	
Panel B				
Constant	0.857*	0.07	0.836*	0.08
ΔEmployment	−0.459***	0.00	−0.428***	0.00
Inflation	0.093***	0.00	0.084***	0.00
ΔRisk stability	0.263***	0.00	0.250***	0.00
DCovid-19	0.395***	0.00	0.369***	0.00
Diagnostics				
Adjusted R^2	0.85		0.80	
Durbin-Watson	1.99			
Sargan test			1.36	0.59
Number of instruments			6	

Notes: OLS and IV p-values are homoskedasticity-only and heteroskedasticity-robust, respectively. Sargan tests accept the null hypothesis of the instruments' validity. The number of instruments was determined as the lagged variables from the controls. Data source: Datastream database (Thomson Reuters 2022)

*: $p \leq 0.10$; **: $p \leq 0.05$; ***: $p \leq 0.01$

Focusing on the primary driver, *DCOVID19*, the results suggest that following the burst of pandemic-confirmed cases, the number of total expatriates was positively linked with the COVID-19 pandemic, thus rejecting H_1 and the prior literature that external shocks affect expatriate levels (Bylander 2018; Dommaraju 2020). The results display robust support in both panels. Regarding the remaining controls, both inflation and risk stability positively impact total expatriates, according to H_4 and H_6. At the same time, higher industrial production and employment motivate immigrants to remain in the host country, i.e., Oman, thus accepting H_3 and H_5. Finally, the Sargan test accepts the null hypothesis in diagnostics, indicating that the instruments are exogenous and valid.

These regressions were then repeated, considering ethnicity's role explicitly across the expatriate groups. The results presented in Tables 4, 5 and 6, focusing on the variable of primary interest (*DCOVID19)*, provide evidence that in the case of expatriates from Bangladesh, India, Pakistan and Nepal (Fig. 3), the pandemic motivated immigrants to leave the country for their homeland. This aligns with H_2 that the external shock affects migration, supporting Bylander (2018) and Dommaraju (2020) while rejecting Castles (2000) and Fischer and Malmberg (2001), who claimed that settled people do not migrate. The ethnic differences support Castles (2002) with respect to the difference between ethnic groups.

In contrast, for expatriates from Sri Lanka, Egypt and the Philippines (Fig. 4), pandemic cases do not seem to discourage immigrants from staying in Oman. This is in accordance with H_2 regarding the heterogeneity of expatriate decisions among ethnic groups. These results receive robust support from both the OLS and IV estimates. The remaining controls exert the same effect on the number of expatriates as in Table 5 in accordance with H_3, The literature supports the positive effects of expatriates on growth (Ager & Brückner, 2013; Alesina & Ferrara, 2005; Bove & Elia, 2017; Chen & Fang, 2013; De Haan 1999; Gören 2014). The results are also consistent with H_4 regarding the positive effects of inflation on expatriates (Furlanetto & Robstad, 2019), while not receiving support from Bentolila et al. (2008), Lach (2007) and Cortes (2008). The estimates are also in line with H_5 and are relevant to the positive effects of employment opportunities on expatriates (Barrett & Burgess, 2008; DaVanzo 1978; Di Pietro 2005; Goss & Schoening, 1984; Karemera et al., 2000). Finally, these estimates are consistent with H_6, supporting the role of political stability (Pratsinakis et al., 2020; Ramos 2020; Weiner 1992; Widgren 1990).

Discussion

Many authors question the old paradigm prioritizing the global scale and downplaying the national or local scale, with substantial disruptions in global value chains and discussion regarding deglobalization arising again with arguments in favor of multi-polar globalization (Oldekop et al., 2020; Schwab & Malleret, 2020). Family members and social networks are critical in influencing immigration decisions (Boyd 1989). With increases in opportunity costs (fewer job opportunities) and transportation costs (higher moving expenses) and the developing psychological costs (difficulties keeping in contact), family members will either have difficulty moving towards host countries or even returning to the home country. This global trajectory might be reversing. In the past, expatriation consisted of moving of one's own volition (Bozionelos 2009; Crowley-Henry 2012; Doherty 2013; Suutari & Brewster, 2000; Suutari & Taka, 2004).

Table 4 OLS & IV estimates: Role of ethnicities in the Philippines, Nepal, & Egypt, February 2013 to February 2021, N=97

	OLS		IV	
Variables	Coefficients	p-values	Coefficients	p-values
Philippines				
Constant	−0.274	0.12	−0.261	0.14
ΔEmployment	−0.386***	0.00	−0.367***	0.00
Inflation	0.086***	0.00	0.079***	0.00
ΔRisk stability	0.248***	0.00	0.242***	0.00
DCovid-19	0.272***	0.00	0.258***	0.00
Diagnostics				
Adjusted R^2	0.91		0.86	
Durbin-Watson	2.01			
Sargan test			1.42	0.53
Number of instruments			7	
Nepal				
Constant	−0.175	0.19	−0.164	0.21
ΔEmployment	−0.514***	0.00	−0.483	0.00***
Inflation	0.097***	0.00	0.085	0.00***
ΔRisk stability	0.165***	0.01	0.158	0.00***
DCovid-19	0.298***	0.00	0.236	0.00***
Diagnostics				
Adjusted R^2	0.62		0.59	
Durbin-Watson	1.97			
Sargan test			1.28	0.64
Number of instruments			8	
Egypt				
Constant	0.222	0.17	0.205	0.20
ΔEmployment	−0.416***	0.00	−0.397***	0.00
Inflation	0.070***	0.01	0.063***	0.01
ΔRisk stability	0.103**	0.02	0.096**	0.02
DCovid-19	0.268***	0.01	0.264***	0.01
Diagnostics				
Adjusted R^2	0.55		0.51	
Durbin-Watson	1.96			
Sargan test			1.48	0.51
Number of instruments			7	

Notes: OLS and IV p-values are homoskedasticity-only and heteroskedasticity-robust, respectively. Sargan tests accept the null hypothesis of the instruments' validity. The number of instruments was determined by the lagged variables from the controls. Data source: Datastream database (Thomson Reuters 2022)

*: $p \leq 0.10$; **: $p \leq 0.05$; ***: $p \leq 0.01$

Table 5 OLS & IV estimates: Role of ethnicities in Sri Lanka, Pakistan & India, February 2013 to February 2021, N=97

	OLS		IV	
Variables	Coefficients	p-values	Coefficients	p-values
Sri Lanka				
Constant	−0.313*	0.06	−0.288*	0.07
ΔEmployment	−0.416***	0.00	−0.399***	0.00
Inflation	0.068***	0.01	0.063***	0.01
ΔRisk stability	0.259***	0.00	0.243***	0.00
DCovid-19	0.241***	0.00	0.178***	0.00
Diagnostics				
Adjusted R^2	0.61		0.57	
Durbin-Watson	1.94			
Sargan test			1.22	0.68
Number of instruments			6	
Pakistan				
Constant	0.281*	0.10	0.265*	0.10
ΔEmployment	−0.611***	0.00	−0.579***	0.00
Inflation	0.121***	0.00	0.113***	0.00
ΔRisk stability	0.209***	0.00	0.182***	0.00
DCovid-19	−0.355***	0.00	−0.318***	0.00
Diagnostics				
Adjusted R^2	0.60		0.57	
Durbin-Watson	2.05			
Sargan test			1.22	0.67
Number of instruments			10	
India				
Constant	0.293*	0.08	0.279*	0.09
ΔEmployment	−0.498***	0.00	−0.480***	0.00
Inflation	0.121***	0.00	0.116***	0.00
ΔRisk stability	0.258***	0.00	0.247***	0.00
DCovid-19	−0.475***	0.00	−0.433***	0.00
Diagnostics				
Adjusted R^2	0.71		0.66	
Durbin-Watson	1.94			
Sargan test			1.45	0.50
Number of instruments			9	

Notes: OLS and IV p-values are homoskedasticity-only and heteroskedasticity-robust, respectively. Sargan tests accept the null hypothesis of the instruments' validity. The number of instruments was determined by the lagged variables from the controls. Data source: DataStream database (Thomson Reuters 2022)

*: $p \leq 0.10$; **: $p \leq 0.05$; ***: $p \leq 0.01$

Table 6 OLS and IV estimates: Role of ethnicities (Bangladesh, and Others) (February 2013 to February 2021-N=97)

	OLS		IV	
Variables	Coefficients	p-values	Coefficients	p-values
Bangladesh				
Constant	1.869**	0.03	1.652**	0.04
ΔEmployment	−0.526***	0.00	−0.512***	0.00
Inflation	0.056**	0.02	0.052**	0.02
ΔRisk stability	0.332***	0.00	0.319***	0.00
DCovid-19	−0.117***	0.00	−0.108***	0.00
Diagnostics				
Adjusted R^2	0.84		0.79	
Durbin-Watson	1.98			
Sargan test			1.32	0.61
Number of instruments			8	
Others				
Constant	−0.289*	0.07	−0.264*	0.08
ΔEmployment	−0.285***	0.01	−0.266***	0.01
Inflation	0.066***	0.01	0.058***	0.01
ΔRisk stability	0.462***	0.00	0.448***	0.00
ΔCovid-19	0.266***	0.00	0.252***	0.00
Diagnostics				
Adjusted R^2	0.45		0.41	
Durbin-Watson	2.06			
Sargan test			1.48	0.50
Number of instruments			7	

Notes: Others = immigrants from other countries. OLS and IV p-values are homoskedasticity-only and heteroskedasticity-robust, respectively. Sargan tests accept the null hypothesis of the instruments' validity. The number of instruments was determined by the lagged variables from the controls. Data source: Datastream database (Thomson Reuters 2022)

*: $p \leq 0.10$; **: $p \leq 0.05$; ***: $p \leq 0.01$

The tendency to immigrate has been influenced by favorable self-selection (supply) based on a higher level of ability, education and self-efficacy (Chiswick 1999). Social relationships influence the decision to move (Stark & Bloom, 1985). Since immigratory decisions are not made in isolation, but only after discussions with families and relatives, it is expected that social relationships influence decisions to return home and reverse the brain drain. Immigrants use their social networks with integrated immigrants to receive detailed information, but this link was severely damaged after the pandemic. This research indicates that economic factors are important in determining immigration decisions. COVID-19 is an exogenous factor that reduced the number of opportunities, motivating employees to migrate or even stay in the host country.

Expatriates had lower employment rates than natives. The reversal occurred because the rate of job loss for expatriates rose relative to that of natives. More research needs to be

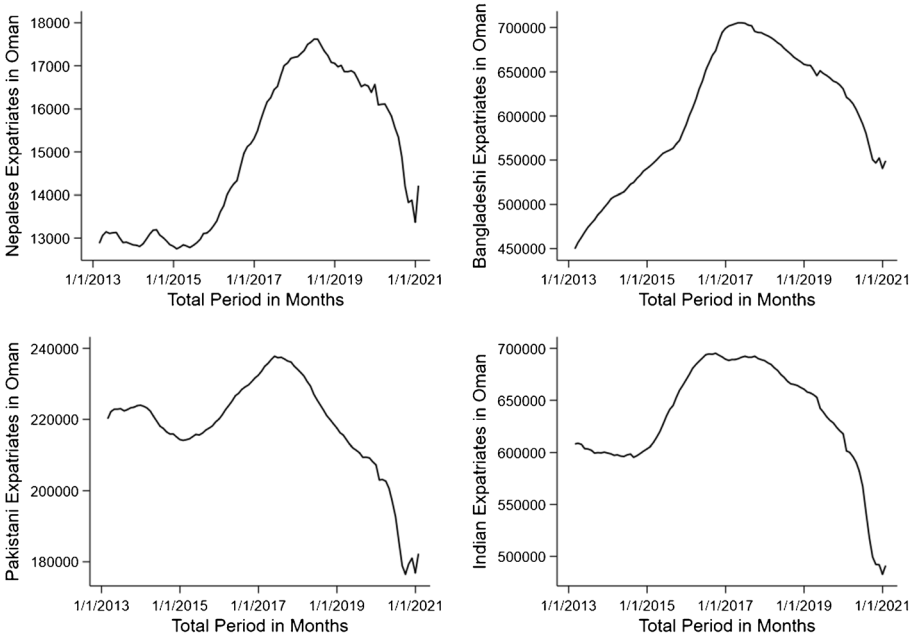

Fig. 3 Rapid decline of Nepalese, Bangladeshi, Pakistani and Indian expatriates in Oman monthly between February 2013 until February 2021. Data source: Datastream database (Thomson Reuters 2022)

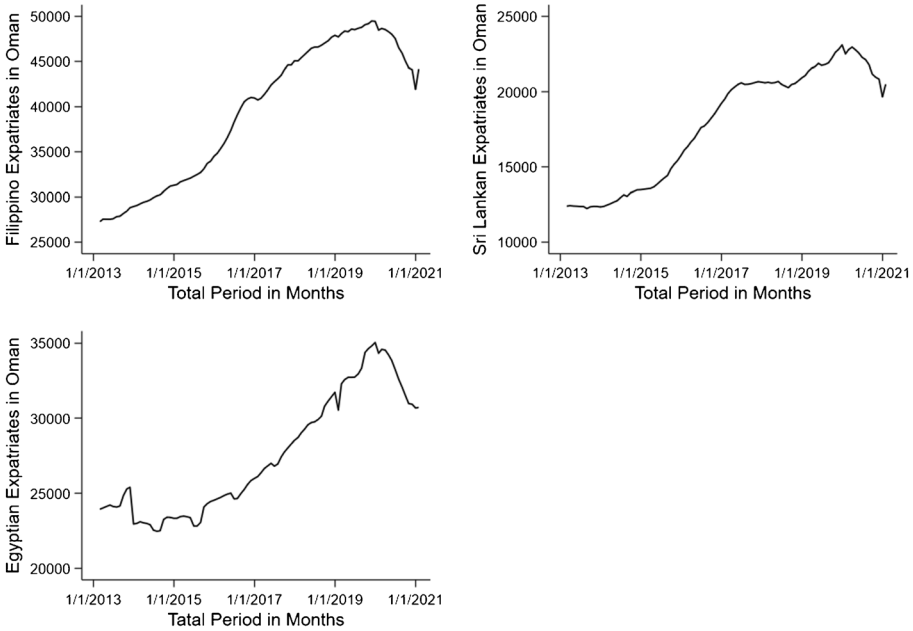

Fig. 4 Moderate decline of Filipino, Sri Lankan and Egyptian expatriates in Oman monthly between February 2013 until February 2021. Data source: Datastream database (Thomson Reuters 2022)

conducted to understand the consequences of the pandemic's labor market disruptions. This paper contributes to the literature by focusing on how the labor market shock affected expatriates, affecting ethnic expatriates differently (Figs. 2, 3 and 4). Historically, immigrants have had different employment rates compared to their native-born counterparts (Borjas 2017; Nekoei 2013). Our findings suggest that reverse movement should not be viewed in isolation as a homogenous exodus from the host countries without identifying ethnic differences among expatriates. Specific ethnic populations are expected to be less affected than others. Perhaps the example found in Oman is not isolated. Other countries might report similar results, and more investigation is required.

Global labor markets are undergoing an important transformation. Early on, some suggested that globalization was on pause (Petricevic & Teece, 2019) or reversed (Witt 2019), with COVID-19 decreasing labor efficiencies in the global labor market (Farndale et al., 2021) and immigration becoming a defining feature of the international labor market with substantial implications for individual countries (Boucher & Cerna, 2014).

Policy Recommendations

Large-scale repatriation is a colossal challenge for source countries that receive waves of returning expatriates and depend on the states' capacities and the services they include. Examples include loan programs, insurance provisions, repatriation and reintegration education, skills training from their home countries, business accelerators, or stand-off income from their host countries.

For the host countries, a potential solution would be a labor market transformation in which firms needing temporary workers are expected to announce vacancies. Job seekers could also participate (Haak-Saheem 2020), and countries could issue temporary work permits and flexible visa schemes while encouraging digital nomad employees (Müller 2016) to continue working remotely unless manual labor is necessary. After repatriation, adjustment is a stressful experience (Begley et al., 2008). The propensity to move and the desire to remain in the host country or return home severely impact intentions to migrate (Richardson et al., 2008). Tharenou and Caulfield (2010) argued that the push and pull factors between host and home countries will attract workers in a constant tug of war. Beitlin (2012) suggests that proper communication is the catalyst for following employment opportunities. Home countries should be required to pull back their expatriates and offer them better employment opportunities, improved health and safety policies, and competitive salaries. Similarly, policy restrictions should be relaxed to allow trade unions to speed up the assimilation of returning expatriates into the workforce.

Conclusion

This article investigated whether COVID-19 positively affected expatriates leaving the country. Inflation and risk also exert a positive relationship, meaning that businesses are more eager to hire expatriates during uncertain times, while growth and employment opportunities motivate businesses to rely less on expatriates. The investigation indicated that including all the expatriates in the sample could mask the changing dynamics among ethnic groups. Investigating the direct impact on various ethnic groups

(Pakistani, Filipino, Egyptians, Sri Lankans, Nepalese, Indians, and Bangladeshi), the analysis identified heterogeneity in the decisions to move or stay due to the pandemic. The findings indicated a decline for expatriates from certain ethnic groups (e.g., from Bangladesh, India, and Pakistan) compared with expatriates from other ethnic backgrounds (e.g., from Egypt, Sri Lanka, Filipino) in Oman due to the COVID-19 pandemic. The aggregate data might have caused us to support the neoclassical model. Still, ethnic differences might be erratic and based on the reference groups. Future research should contemplate the dynamics between groups and take into consideration that migration flows between ethnic groups are not static but volatile, depending on exogenous and endogenous factors within a host country.

References

Ager, P., & Brückner, M. (2013). Cultural diversity and economic growth: Evidence from the US during the age of mass migration. *European Economic Review, 64*, 76–97.

Al-Ali, J. (2008). Emiratisation: Drawing UAE nationals into their surging economy. *International Journal of Sociology and Social Policy, 28*(9–10), 365–379.

Alesina, A., & Ferrara, E. L. (2005). Ethnic diversity and economic performance. *Journal of Economic Literature, 43*(3), 762–800.

Al-Lamki, S. M. (1998). Barriers to Omanisation in the private sector: The perceptions of Omani graduates. *International Journal of Human Resource Management, 9*(2), 377–400.

Al-Waqfi, M. A., & Forstenlechner, I. (2014). Barriers to Emiratization: The role of policy design and institutional environment in determining the effectiveness of Emiratization. *The International Journal of Human Resource Management, 25*(2), 167–189.

Barrett, R., & Burgess, J. (2008). Small firms and the challenge of equality, diversity and difference. *Equality, Diversity and Inclusion, 27*(3), 213–220.

Barrington, L., & Lewis, B. (2021). Oman extends Omanisation by giving locals higher education jobs. *Reuters,* February 14. Available at: https://www.reuters.com/article/us-oman-economy-idUSKBN2AE0PN

Begley, A., Collings, D. G., & Scullion, H. (2008). The cross-cultural adjustment experiences of self-initiated repatriates to the Republic of Ireland labour market. *Employee Relations, 30*(3), 264–282.

Beitlin, B. K. (2012). Syrian self-initiated expatriates: Emotional connections from abroad. *International Migration, 50*(6), 1–17.

Bentolila, S., Donaldo, J. J., & Jimeno, J. F. (2008). Does immigration affect the Phillips curve? Some evidence for Spain. *European Economic Review, 52*(8), 1398–1423.

Borjas, G. (1987). Self-selection and the earnings of immigrants. *American Economic Review, 77*(4), 531–553.

Borjas, G. J. (1989). Economic theory and international migration. *International Migration Review, 23*(3), 457–485.

Borjas, G. J. (1994). The economics of immigration. *Journal of Economic Literature, 32*(4), 1667–1717.

Borjas, G. J. (2017). The labor supply of undocumented immigrants. *Labour Economics, 46*, 1–13.

Borrmann, W. A. (1968). The problem of expatriate personnel and their selection in international enterprises. *Management International Review, 8*(4/5), 37–48.

Boucher, A., & Cerna, L. (2014). Current policy trends in skilled immigration policy. *International Migration, 52*(3), 21–25.

Bove, V., & Elia, L. (2017). Migration, diversity, and economic growth. *World Development, 89*, 227–239.

Boyd, M. (1989). Family and personal networks in international migration: Recent developments and new agendas. *International Migration Review, 23*(3), 638–670.

Bozionelos, N. (2009). Expatriation outside the boundaries of the multinational corporation: A study with expatriate nurses in Saudi Arabia. *Human Resource Management, 48*(1), 111–134.

Bylander, M. (2018). Migration disruption: Crisis and continuity in the Cambodian mass returns. *International Migration Review, 52*(4), 1130–1161.

Castles, S. (2000). International migration at the beginning of the twenty-first century: Global trends and issues. *International Social Science Journal, 52*(165), 269–281.

Castles, S. (2002). Migration and community formation under conditions of globalization. *International Migration Review, 36*(4), 1143–1168.

Castles, S., De Haas, H., & Miller, M. J. (2014). *The age of migration: International population movements in the modern world. 5th ed.* New York, NY: Palgrave Macmillan.

Chen, H. J. (2006). International migration and economic growth: A source country perspective. *Journal of Population Economics, 19*(4), 725–748.

Chen, H. J., & Fang, I. H. (2013). Migration, social security, and economic growth. *Economic Modelling, 32*, 386–399.

Chiswick, B. (1999). Are immigrants favorably self-selected? *American Economic Review, 89*(2), 181–185.

Clark, X., Hatton, T. J., & Williamson, J. G. (2007). Explaining US immigration, 1971–1998. *The Review of Economics and Statistics, 89*(2), 359–373.

Cortes, P. (2008). The effect of low-skilled immigration on US prices: Evidence from CPI data. *Journal of Political Economy, 116*(3), 381–422.

Crowley-Henry, M. (2012). Re-conceptualizing the career development of self-initiated expatriates: Rivers not ladders. *Journal of Management Development, 31*(2), 130–141.

Czaika, M. (2015). Migration and economic prospects. *Journal of Ethnic and Migration Studies, 41*(1), 58–82.

DaVanzo, J. (1978). Does unemployment affect migration? Evidence from Micro data. *The Review of Economics and Statistics, 60*(4), 504–514.

De Haan, A. (1999). Livelihoods and poverty: The role of migration - a critical review of the migration literature. *The Journal of Development Studies, 36*(2), 1–47.

De Haas, H. (2021). A theory of migration: The aspirations-capabilities framework. *Comparative Migration Studies, 9*(1), 1–35.

Di Pietro, G. (2005). On migration and unemployment: Evidence from Italian graduates. *Economic Issues, 10*(2), 11–28.

Docquier, F. (2018). Long-term trends in international migration: Lessons from macroeconomic model. *Economics and Business Review, 4*(1), 3–15.

Doherty, N. (2013). Understanding the self-initiated expatriate: A review and directions for future research. *Journal of International Management Review, 15*(4), 447–469.

Dommaraju, P. (2020). Social demography and pandemics. *Asian Population Studies, 16*(3), 241–242.

Elliott, G., Rothenberg, T. J., & Stock, J. H. (1996). Efficient tests for an autoregressive unit root. *Econometrica, 64*(4), 813–836.

Farndale, E., Thine, M., Budhwar, P., & Kwon, B. (2021). Deglobalisation and talent sourcing: Cross-national evidence from high-tech firms. *Human Resource Management, 60*(2), 259–272.

Fischer, P. A., & Malmberg, G. (2001). Settled people don't move: On life course and (im-) mobility in Sweden. *International Journal of Population Geography, 7*(5), 357–371.

Furlanetto, F., & Robstad, Ø. (2019). Immigration and the macroeconomy: Some new empirical evidence. *Review of Economic Dynamics, 34*, 1–19.

Gören, E. (2014). How ethnic diversity affects economic growth. *World Development, 59*, 275–297.

Goss, E. P., & Schoening, N. C. (1984). Search time, unemployment, and the migration decision. *Journal of Human Resources, 19*(4), 570–579.

Greenwood, M. J. (1975). Research on internal migration in the United States: A survey. *Journal of Economic Literature, 13*(2), 397–433.

Haak-Saheem, W. (2020). Talent management in Covid-19 crisis: How Dubai manages and sustains its global talent pool. *Asian Business and Management, 19*, 298–301.

Haak-Saheem, W., & Brewster, C. (2017). 'Hidden' expatriates: International mobility in the United Arab Emirates as a challenge to current understanding of expatriation. *Human Resource Management Journal, 27*(3), 423–439.

Hagan, J. (1998). Social networks, gender, and immigrant incorporation: Resources and constraints. *American Sociological Review, 63*(1), 55–67.

Harris, J. R., & Todaro, M. P. (1970). Migration, unemployment and development: A two-sector analysis. *The American Economic Review, 60*(1), 126–142.

Karemera, D., Oguledo, V. I., & Davis, B. (2000). A gravity model analysis of international migration to North America. *Applied Economics, 32*(13), 1745–1755.

Karim, M. R., Islam, M. T., & Talukder, B. (2020). COVID-19' s impacts on migrant workers from Bangladesh: In search of policy intervention. *World Development, 136*(December), 105123.

Katz, E., & Stark, O. (1986). Labor migration and risk aversion in less developed countries. *Journal of Labor Economics, 4*(1), 134–149.

Kim, H. D., & Tung, R. L. (2013). Opportunities and challenges for expatriates in emerging markets: An exploratory study of Korean expatriates in India. *The International Journal of Human Resource Management, 24*(5), 1029–1050.

Lach, S. (2007). Immigration and prices. *Journal of Political Economy, 115*(4), 548–587.

Lee, C. K. (1999). From organized dependence to disorganized despotism: Changing labour regimes in Chinese factories. *The China Quarterly, 157*, 44–71.

Lett, L., & Smith, M. (2009). East meets west: The case of polish expatriates in the UK. *The International Journal of Human Resource Management, 20*(9), 1864–1878.

Lewis, W. A. (1954). Economic development with unlimited supplies of labour. *The Manchester School, 22*(2), 139–191.

Liao, K. A. (2020). Operation 'bring them home': Learning from the large-scale repatriation of overseas Filipino workers in times of crisis. *Asian Population Studies, 16*(3), 310–330.

Mashood, N., Verhoeven, H., & Chansarkar, B. (2009). Emiratisation, Omanisation and Saudisation–common causes: Common solutions. In *10th international business research conference, Dubai, UAE* (pp. 1-12). https://www.researchgate.net/profile/Bal-Chansarkar-2/publication/228365080_Emiratisation_Omanisation_and_Saudisation-common_causes_common_solutions/links/54325f090cf22395f29bffed/Emiratisation-Omanisation-and-Saudisation-common-causes-common-solutions.pdf

Massey, D. S., Hugo, G., & Taylor, J. E. (1993). Theories of international migration: A review and appraisal. *Population and Development Review, 19*(3), 431–466.

McNulty, Y., & Brewster, C. (2017). Theorizing the meaning (s) of 'expatriate': Establishing boundary conditions for business expatriates. *The International Journal of Human Resource Management, 28*(1), 27–61.

Menon, D. V., & Vadakepat, V. M. (2020). Migration and reverse migration: Gulf-Malayalees' perceptions during the Covid-19 pandemic. *South Asian Diaspora, 13*(2), 157–177.

Ministry of Endowment and Religious Affairs (2022) Omanisation. https://www.mara.om/about-oman/community-development/omanisation/

Morley, B. (2006). Causality between economic growth and immigration: An ARDL bounds testing approach. *Economics Letters, 90*(1), 72–76.

Mountford, A. (1997). Can a brain drain be good for growth in the source economy? *Journal of Development Economics, 53*(2), 287–303.

Müller, A. (2016). The digital nomad: Buzzword or research category? *Transnational Social Review, 6*(3), 344–348.

Musalmy, S. L. (2021) Omanisation gathers steam. Muscat Daily, September 5. https://www.muscatdaily.com/2021/09/05/omanisation-gathers-steam/

Negandhi, A. R., & Estafen, B. D. (1965). A research model to determine the applicability of American management know-how in differing cultures and/or environments. *Academy of Management Journal, 8*(4), 309–318.

Nekoei, A. (2013). Immigrants' labor supply and exchange rate volatility. *American Economic Journal: Applied Economics, 5*(4), 144–164.

Oldekop, J. A., Horner, R., Hulme, D., Adhikari, R., Agarwal, B., Alford, M., Bakewell, O., Banks, N., Barrientos, S., Bastia, T., Bebbington, A. J., Das, U., Dimova, R., Duncombe, R., Enns, C., Fielding, D., Foster, C., Foster, T., Frederiksen, T., … Zhang, Y. F. (2020). COVID-19 and the case for global development. *World Development, 134*(October), 105044.

Parrado, E. A., & Cerrutti, M. (2003). Labor migration between developing countries: The case of Paraguay and Argentina. *International Migration Review, 37*(1), 101–132.

Pessino, C. (1991). Sequential migration theory and evidence from Peru. *Journal of Development Economics, 36*(1), 55–87.

Petricevic, O., & Teece, D. J. (2019). The structural reshaping of globalization: Implications for strategic sectors, profiting from innovation, and the multinational enterprise. *Journal of International Business Studies, 50*(9), 1487–1512.

Pissarides, C. A., & McMaster, I. (1990). Regional migration wages and unemployment: Empirical evidence and implications for policy. *Oxford Economic Papers, 42*(4), 812–831.

Pratsinakis, M., King, R., Himmelstine, C. L., & Mazzilli, C. (2020). A crisis-driven migration? Aspirations and experiences of the post-2008 south European migrants in London. *International Migration, 58*(1), 15–30.

Ramos, C. (2020). Searching for stability: Onward migration and pathways of precarious incorporation in and out of Spain. *International Migration, 59*(6), 77–92.

Ravenstein, E. G. (1885). The laws of migration. *Journal of the Statistical Society of London, 48*(2), 167–235.

Thomson Reuters (2022) Datastream database. Available via subscription service. Accessed: July 2020

Richardson, J., McBey, K., & McKenna, S. (2008). Integrating realistic job previous and realistic living conditions previews: Realistic recruitment for internationally mobile knowledge workers. *Personnel Review, 37*(5), 490–508.

Rodriguez, C. A. (1975). Brain drain and economic growth: A dynamic model. *Journal of Development Economics, 2*(3), 223–247.

Roy, A. D. (1951). Some thoughts on the distribution of earnings. *Oxford Economic Papers, 3*(2), 135–146.

Ryan, J. C. (2016). Old knowledge for new impacts: Equity theory and workforce nationalization. *Journal of Business Research, 69*(5), 1587–1592.

Schewel, K. (2020). Understanding immobility: Moving beyond the mobility bias in migration studies. *International Migration Review, 54*(2), 328–355.

Schwab, K., & Malleret, T. (2020). *Covid-19: The great reset*. World Economic Forum. Agentur Schweiz.

Serlenga, L., & Shin, Y. (2021). Gravity models of interprovincial migration flows in Canada with hierarchical multifactor structure. *Empirical Economics, 60*(1), 365–390.

Sjaastad, L. A. (1962). The costs and returns of human migration. *Journal of Political Economy, 70*(5, part 2), 80–93.

Stark, O., & Bloom, D. E. (1985). The new economics of labor migration. *The American Economic Review, 75*(2), 173–178.

Stark, O., & Levhari, D. (1982). On migration and risk in LDCs. *Economic Development and Cultural Change, 31*(1), 191–196.

Suutari, V., & Brewster, C. (2000). Making their own way: International experience through self-initiated foreign assignments. *Journal of World Business, 35*(4), 417–436.

Suutari, V., & Taka, M. (2004). Career anchors of managers with global careers. *The Journal of Management Development, 23*(9), 833–847.

Tharenou, P., & Caulfield, N. (2010). Will I stay or will I go? Explaining repatriation by self-initiated expatriates. *Academy of Management Journal, 53*(5), 1009–1028.

Todaro, M. P. (1969). A model of labor migration and urban unemployment in less developed countries. *The American Economic Review, 59*(1), 138–148.

Van Hear, N. (2014). Reconsidering migration and class. *International Migration Review, 48*(1), 100–121.

Waxin, M. F., & Bateman, R. E. (2016). Human resource management in the United Arab Emirates. In P. Budhwar & K. Mellahi (Eds.), *handbook of human resource Management in the Middle East*. Edward Elgar publishing.

Weiner, M. (1992). Security, stability, and international migration. *International Security, 17*(3), 91–126.

Widgren, J. (1990). International migration and regional stability. *International Affairs, 66*(4), 749–766.

Witt, M. A. (2019). Deglobalization: Theories, predictions, and opportunities for international business research. *Journal of International Business Studies, 50*(7), 1053–1077.

Zivot, E., & Andrews, D. W. (2002). Further evidence on the great crash, the oil-price shock, and the unit-root hypothesis. *Journal of Business and Economic Statistics, 20*(1), 25–44.