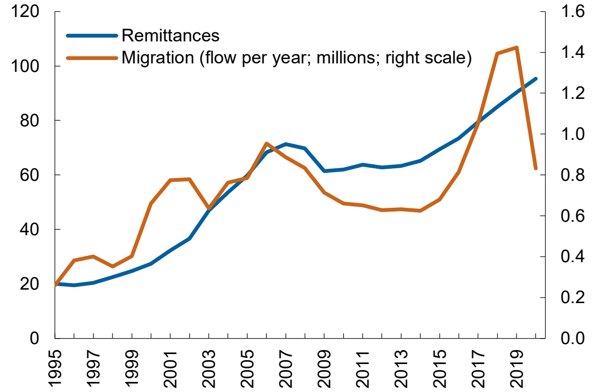
Online Annex 1. Leaving but Sending Money Back Home: The Joint Effect of Migration and Remittances on Growth and Labor Force[1]

Emigration and remittances have been important factors shaping the economic and social prospects of countries around the world. They are particularly important in Latin America and the Caribbean (LAC), where migration flows to OECD countries have quadrupled in the period 1995–2020 (Online Annex Figure 1.1). Mirroring these migration flows, remittances to LAC countries have increased almost five times over the same period. In many LAC countries, such remittances not only represent an important source of household income but also a major source of foreign exchange, in some cases exceeding exports, foreign direct investment, or official assistance. Understanding the effects of migration and remittances—especially their net joint impact—on economic growth is of paramount importance for these countries.

Online Annex Figure 1.1. Emigration Flows and Remittances in LAC

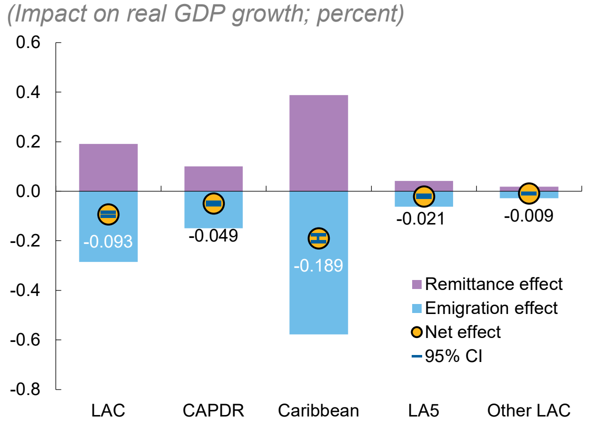
(2015 billion US dollars)



Sources: OECD, International Migration database; and World Bank, World Development Indicators.

Online Annex Figure 1.2. Individual and Net Joint Effects of Emigration and Remittances on Economic Growth

(Impact on real GDP growth; percent)



Source: IMF staff calculations.
Note: Figure presents results from 2SLS estimations using shift-share instrumental variables. It depicts the impact on real GDP growth in the country of origin following a common shock of a 10 percent increase in income in migrants' destination countries. CAPDR = Central America, Panama, and the Dominican Republic; CI = confidence interval; LAC = Latin America and the Caribbean; LA5 = Latin America 5 (Brazil, Chile, Colombia, Mexico, Peru).

A novel "shift-share" instrumental variables approach (that allows to address endogeneity issues) provides estimates of these net joint effects for LAC countries (Carare and others 2024).[2]

On average, emigration is found to have a negative and statistically significant impact on contemporaneous economic growth in the countries of origin (Online Annex Figure 1.2), reflecting the associated reduction of the workforce (as well as associated aggregate demand).[3] On the other hand, remittances sent by emigrants are found to support contemporaneous economic activity in these countries by boosting demand of the remaining population.[4] Nonetheless, remittances only partially mitigate the outflow migration's adverse effect, resulting in a negative net joint effect on output growth. Moreover, outflow migration is associated with a negative impact on labor force participation, suggesting that the relatively more active segments of the overall workforce tend to migrate, while the impact of remittances on labor force participation is insignificant. There are significant differences across

[1] Prepared by Metodij Hadzi-Vaskov, based on Carare and others (2024), "The Joint Effect of Emigration and Remittances on Economic Growth and Labor Force Participation in Latin America and the Caribbean," IMF Working Paper 24/175.

[2] To address endogeneity concerns, Carare and others (2024) follow a 2SLS estimation, regressing in the first stage remittances and emigration flows against a set of three instruments: income, unemployment rate, and manufacturing unit labor costs in the migrants' destination country. Set of tests support validity of these instruments. The exogeneity of these pull-instrumental variables ("shifts") is further strengthened by weighting them by the historical shares of emigration from that particular country of origin ("shares").

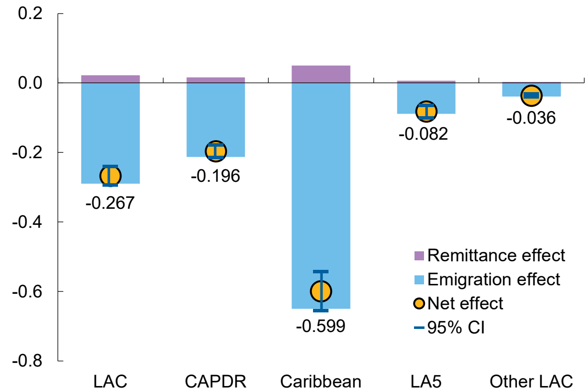
[3] A shock to the instrumental variables, such as a 10 percent income increase in the migrants' destination countries, is found to lead to an increase in the emigration rate towards OECD countries by 0.028 percentage point on average, and a US$10 increase in average remittances per capita across all LAC countries. The impact is particularly pronounced for the Caribbean, where the emigration rate is found to increase by 0.066 percentage point on average, and remittances per capita go up by about $20 on average.

[4] Remittances exert a multitude of effects on the countries of origin, including via the exchange rate and competitiveness (Box 1). The focus here is on remittances' overall impact on economic activity.

subregions, with the largest negative effects observed in the Caribbean, likely reflecting the relatively more acute "brain drain" this subregion suffers due to outward migration of high-skill workers.

In addition, the negative impact of outflow migration and remittances on labor force participation is especially important for the youth cohort (15-24), indicating that the relatively more active segment of the youth workforce is more likely to migrate (Online Annex Figure 1.3). A drop in labor participation may not necessarily be negative for the country of origin, such as in cases when the receipt of remittances allows youth to extend education and skills accumulation, and thereby improve long-term economic prospects. However, the results suggest that the drop in labor force participation is due to outward migration, and hence, the loss of origin countries' productive capacity.

Online Annex Figure 1.3. Individual and Joint Effects of Emigration and Remittances on LFP (15–24)
(Impact on youth LFP change; percent)



Sources: OECD, International Migration database; and World Bank, World Development Indicators.
Note: LAC = Latin America and the Caribbean; CAPDR = Central America, Panama, and the Dominican Republic; LA5 = Latin America 5 (Brazil, Chile, Colombia, Mexico, Peru); LFP = labor force participation; CI = confidence interval.

These findings help inform some policy priorities. In light of the adverse joint effect on growth and labor force participation in the countries of migrants' origin, prioritizing policies that enhance the business environment, improve security, and lead to the creation of high-quality jobs, particularly for the younger workforce, seem particularly important. These policies are likely to be more urgent in countries in the Caribbean and Central America that face the most significant losses from emigration.

References

Carare, Alina, Alejandro Fiorito Baratas, Metodij Hadzi-Vaskov, Jessie Kilembe, and Wenzhang Zhang. 2024. "The Joint Effect of Emigration and Remittances on Economic Growth and Labor Force Participation in Latin America and the Caribbean." IMF Working Paper 2024/175, International Monetary Fund, Washington, DC.