filodiritto
APPROFONDISCI SEMPRE
Tribunale Bologna 24.07.2007, n.7770 - ISSN 2239-7752
Direttore responsabile: Antonio Zama

The Link Between Emigration and Financial Transactions

15 Giugno 2019
Simona-Andreea Apostu

Abstract
Lately, migration has registered a growing trend, reaching massive values. Numerous studies have analysed the phenomenon of migration, its trend, the advantages and disadvantages, as well as the factors of influence. This article comes as a complement to existing studies, analysing migration from economic and financial perspective, focusing on the emigration and economic growth. The binder between emigration and economic growth is represented by remittances, money sent by emigrants in the country of origin. The purpose of this study is to determine whether the number of emigrants influences the economic growth, given that money sent to the country of origin contributes to economic development, so the study analyses the number of emigrants and the financial transactions. For this, is established the link between number of emigrants and financial transactions for the countries of Europe during 2008-2015. The results of this study show that the variable emigrants have a significant influence on financial transactions, being statistically significant. Lot of emigrants send remittances and this is reflected in the financial transactions from the origin country. So, emigrants emigrate for a limited period of time, not forever. The reason they emigrate is higher incomes and a part of incomes is sent in the origin country, helping the economies of less developed and developing countries and leading to economic growth.

JEL Classification: *E44, F22, J61, 015*

Table of Contents:

1. Introduction

There are mutual relations between countries or regions regarding helping, communication, trade, foreign investment, transport and migration, but migration has the most significant and lasting impact. Migration transforms migrants, as well as areas of origin and destination areas.
Migration analysis should focus both on immigration and emigration, with a significant impact, especially in developing countries.

The current society faces a massive migration phenomenon. Numerous studies have analysed the phenomenon of migration, its trend, the advantages and disadvantages, as well as the factors of influence.

The phenomenon of migration will not decrease as long as citizens find better conditions outside the borders, and developed European countries encourage migration in order not to change the population structure, as they are experiencing a demographic decline.

Migration has **advantages**, **but also disadvantages and involves many factors, both social, cultural and economic**.

Migration is most influenced by incomes, both in the country of destination and in the country of origin. Emigrants transfer money to the people in the country of origin, representing remittances. Remittances lead us to the idea that mainly emigrants emigrate for a determined period of time, not forever and with the goal of helping the persons left at home. In fact, this emigration is temporary and is caused by the lack of satisfactory remuneration in the country of origin. So, the emigrants incomes can influence the financial transactions in the country of origin, leading to economic growth, so emigration can be seen as a positive phenomenon, as an advantage, also for the countries people emigrate.

2. Problem Statement

The exchanges between regions have increased both in intensity, speed and scale. These exchanges are exchanges of goods and services, but also the efforts needed to meet these challenges and to cooperate internationally (Faist, 2006).

Migration is a growing phenomenon and has the role of transferring tacit knowledge, skills and capital (Williams, 2006).

Mayda (2008) studied the phenomenon of migration using data from 14 OECD countries during 1980-1995. The analysed factors are economic, geographic, cultural and demographic, but the study’s results show that the country’s destination has the greatest influence, followed by the distance between the country of origin and the country of destination.

Beine showed that the most important factors influencing migration are economic (credit constraints, expectations, general immigration policies, unemployment rate) and environmental (Beine *et al.*, 2015).

Daily, migrants working in developed countries send money to their families in developing countries. Remittances have increased since the 1990s, with the help of these money, nations have exceeded the poverty line, international policy has shifted and immigration policy has reformed (Kapur and McHale, 2003).

Migrants set up economic relations with their country of origin. The study of Guarnizo presents transnational migration, highlighting the link between labor mobility and capital mobility (Guarnizo, 2003).

There is a link between migration and development and is used to research and develop policies. International migrants contribute to their country of origin in the form of remittances, investments and philanthropic donations, which are important resources for development.

Upadhya and Rutten analyse migration and development using data on migrants to India and argues that there are transnational connections and flows at regional level that have social and economic implications (Upadhya and Rutten, 2012).

Migration, especially emigrants, leads us to the disadvantages of this phenomenon. Ratha (2003) studied migration and demonstrates that although a country is experiencing migration losses, these losses are counterbalanced by remittances.

Orozco (2002) proceeds from the link between migration and globalization and highlights the importance of remittances in Latin America economies, especially in Mexico, Central America and the Caribbean. He analyses the actors involved in the transfer of remittances and suggests that migrant labor has a distinct dynamic in the economies of Latin America.

Frankel (2010) analyses the remittances of emigrants and explains that remittances are counter-cyclical with respect to income in the worker's country of origin while the income of the migrant's host country is pro-cyclical. The econometric results confirm this hypothesis, suggesting that remittances should be a criterion for an optimal currency area.

Remittances have a large and positive impact on macroeconomic stability in poor countries, contributing to financing the country's large and growing trade deficit and to fiscal consolidation and supporting the value of the currency. For labor-exporting countries migrant remittances have begun to be considered development mechanisms, representing external sources of private funds. Since remittances are sent directly to the families of the country of destination, they are used for private purposes. (Anghelache *et al*., 2016).

The World Bank's estimates of remittances show an ascending trend. Sander and Mainbo study the situation and show that FDI is the largest source of financial flows, followed by remittances flows, and in many countries, remittances exceed FDI flows (Sander and Mainbo, 2005).

Remittances that emigrants send home to relatives record an interest that has grown in the past three decades among authors and politicians. Hernandez and Coutin (2006) focused on remittances sent from the United States to El Salvador. The money that migrants send home is a national resource, but also a foreign currency. Central banks and international financial institutions define remittances as a source of "no cost" revenue. Remittances have a social and economic impact, and the study has established a link between migrants' money, states and migrants.

Edison and Levine used new econometric techniques to investigate the impact of international financial integration on economic growth, assessing whether this link depends on the level of economic development, financial development, legal system development, government corruption, and macroeconomic policies. Using international financial integration measures for 57 countries and a number of statistical methodologies, it concludes that international financial integration accelerates economic growth even when controlling certain economic, financial, institutional and political policies (Edison *et al*., 2002).

3. Research Questions/Aims of the research

Migration is a phenomenon seen as a disadvantage for the country of origin, because it records a loss of human capital. This phenomenon should be seen, also as bringing added value, both in the country of origin and in the country of destination. Given that the main reason why people emigrate is the possibility of higher incomes, we can deduce that the biggest advantage in the country of origin is the financial one. This is evidenced by the amounts of money sent home to relatives by the emigrants, called remittances. These amounts help people left home financially, so we expect to lead to economic growth at national level, implicitly to the growth of financial transactions. The purpose of this study is to determine whether there is a link between remittances and financial transactions in the home country.

Because we cannot quantify the real number of remittances, the number of emigrants is analysed, considering that many of them send money home. The null hypothesis is that there is no link between remittances and financial transactions, and the alternative one that there is a link. For this purpose, the research analyses the countries of Europe throughout the period 2008-2015.

4. Data Description/Research Methods

According to the dictionary, the transaction is a convention between two or more parties, through which certain rights are transferred and a trade is exchanged. The analysed variables are financial transactions and number of emigrants in Europe for the period 2008-2015 and the data source is Eurostat online database. Financial transactions are calculated as the ratio between the Net Acquisition of Financial Assets and the Net Debt Growth, and the number of emigrants is calculated as absolute value.

The method used is panel regression. Models for panel data are regression equations in which longitudinal data and cross-sectional data are used. (Manole *et al*., 2014).

Panel data analysis has been used in social sciences in many contexts, and over time it has been established that panel analysis is recommended instead of cross-section (Kessler and Greenberg, 1981).

Bauer studied the wage effects of inadequate education in Germany using panel data between 1984-1998. The results showed that there are differences between properly trained and inadequately trained workers (Bauer, 2002).

Carstensen and Toubal (2004) studied the factors that influence foreign direct investment (FDI) in Central and Eastern European countries. The empirical model, built using panel data, shows that foreign direct investment is influenced by the potential market, low labor costs, skilled workforce and relative facilities.

For China, Korea, Taiwan, Hong Kong, Singapore, Malaysia, the Philippines and Thailand and Southeast Asia, Granger’s causality between GDP, exports and FDI (foreign direct investment) was studied using panel data for the period 1986-2004. The results related that causality relations are different for each country, but as a general rule it is established that there is a direct link between FDI and GDP and a backward link between exports and FDI and between exports and GDP (Hsiao and Hsiao, 2006).

This article comes as a complement to existing studies, analysing migration from economic and financial perspective, focusing on the link between emigration and financial transactions.

The paper aims to establish a link between number of emigrants and financial transactions within the countries of Europe during 2008-2015, considering that money sent to the country of origin contributes to economic development.

For panel analysis, the variation of a resultant variable depending on the determinants is estimated considering the following model:

yit = b0it + b1itx1it + ... + bkitxkit + wit (1)

with i = 1..., n and t = 1..., T.

Yit represent the values for the depending variable, xkit are the values for the independent variables, Xk, b0it is a constant, bkit represent the estimates of the coefficients of the variables Xk, recorded for a country at the time t, and wit is the estimated error (Sevestre, 2005).

In case b_{kit} coefficients are equal, the variables X_k influence the dependent variable constantly over time and the model is homogeneous and if not, the model is heterogeneous.

The study considers the model with fixed effects. In order to determine the impact of emigrants on financial transactions in the European countries, yearly, for the period 2008-2015, is proposed the following model with fixed effects:

$$FT_{it} = b_0 + a_i + d_t + b_1 EM_{it} + w_{it} \qquad (2)$$

The model equation is estimated using the values recorded for the two indicators in the 26 countries of the EU during 2008-2015. Therefore, two indices are used: t = time generic index, t = 2008, 2009, ..., K, ..., 2015 and i = generic index for the region, i = 1, 2, ..., K, ..., 26.

To obtain the results of the research, the collected data using Eurostat online database was analysed with the SAS statistical software.

5. Findings

To establish the link between emigrants and financial transactions, it is estimated that financial transactions from a cross-sectional and longitudinal perspective, based on the fixed- effect model, are influenced by the number of emigrants. The main statistical results obtained in SAS 9.4 for the fixed-effects model show whether the estimated model explains the variation of the resulting variable (financial transactions) and the validity of the use of this model. The main statistics for the fixed-effect model are summarized in Table 1.

Table 1 shows that Sum of squares of errors (SSE) is 1.894866E12 and Mean squares of errors (MSE) is 10890033349, obtained by dividing the SSE to 174 (number of degrees of freedom: 26 countries × 8 years - 34 model parameters with fixed effects). Based on R-Square determination, it can be seen that the fixed-effect model obtained by the panel data analysis explains 66.56% of the variation in financial transactions and is defined by the number of emigrants.

The study also examines the hypothesis of homogeneity. The results obtained support the estimation of financial transactions based on number of emigrations in case of fixed effects models.

Since the probability of having a calculated F (Fisher) test statistic higher than its theoretical value is below the theoretical threshold of 0.0001, the assumption of null homogeneity is accepted at the sample level. This shows that the pattern of financial transactions and the number of emigrants is unique and representative across all European countries included in the study (Jaba *et al.*, 2013).

The results obtained from the FT_{it} estimation through the fixed-effect model are presented in Table 3. The estimated values of the regression model, presented in Table 3, show that the number of emigrants significantly influences the level of financial transactions (for Pr of 10%).

Therefore, the regression equation is presented as follows:

$$FT_{it} = 186895.1 + a_i + d_t - 0{,}9458 * EM_{it} \qquad (3)$$

where a_i are the fixed effects determined by the individual size of the countries from Europe (differences between countries) and d_t are the fixed effects determined by the temporal dimension (the differences between years in a country).

From the estimates of the regression parameters, CS represents the 25 fixed cross-sectional effects of ?, determined by the individual size of the country, and TS represents the 7 fixed longitudinal effects d_t, determined by the temporal dimension. The impact of emigrants on financial transactions is not the same for all countries, depending on time (2008, ..., 2015).

For the model obtained, there are 25 (=26-1) fixed cross-effects, i.e. the individual differences between the countries included in the sample (ai), two are insignificant, i.e. Spain and Germany. This indicates a homogeneity of countries from the individual (transversal) perspective.
According to the results of the estimates of the regression parameters, there can be noticed significant individual effects in Spain and Germany. These countries have individual effects significantly different from other countries. Spain recorded 265763.5 more financial transactions than the other countries in the sample, and Germany 527452.8 more. For countries with insignificant fixed effects it can be noticed that there are no large differences regarding the number of emigrants.

> **In case of fixed temporal effects estimated for the regression model, i.e. the longitudinal differences in the period of time included in the study (dt), there are not significant differences for each year. It can be concluded that over time, the time factor has not a significant influence on the financial transactions, given the number of emigrants.**

For the variable number of emigrants estimated in the regression model, there are significant differences. The variable emigrants have a significant influence on financial transactions, is statistically significant.

6. Conclusions

Lately, migration has recorded very high values. For this reason, many authors have studied this phenomenon, its evolution, the advantages and disadvantages and the factors that influence it.
Although migration also has advantages, for the country of origin, from where people emigrates, migration is seen as a loss, both micro and macro. At the micro level, we are referring to losing a family member, at home remaining an incomplete family, and this have implications financially, socially, psychologically. At the national level, emigration has the disadvantage of losing human capital, labor force, and these have multiple implications.
The most important factor that influences migration is the financial one, emigrants emigrate for having a higher income.
Analysing the remittances, the amounts of money sent by emigrants to the families left behind, it is obvious that a part of the emigrant’s incomes returns to the country of origin, thus helping the economy, leading to economic growth. Because the number and amount of remittances cannot be accurately determined, we have analysed the number of emigrants and financial transactions in the country of origin.

> **The variable emigrants have a significant influence on financial transactions, being statistically significant. Lot of emigrants send remittances and this is reflected in the financial transactions from the origin country.**

The conclusion is that emigrants emigrate for a limited period of time, not forever. The reason they emigrate is the higher level of incomes and a part of incomes is sent in the origin country and reflected in the financial transactions, helping the economy of developing and less developed countries, leading to economic growth.

Acknowledgment

The conclusion of the study is that the number of emigrants influences financial transactions in the origin country. This means that most emigrants send home money in the form of remittances, thus helping the economies of less developed or developing countries. These conclusions come as a confirmation of studies, according to which remittances are reflected in economic growth in the origin country.

Contributo selezionato da Filodiritto tra quelli pubblicati nei Proceedings “International Conference on Economics and Social Sciences – Challanges and Trends in Economic and Social Sciences Research - 2018”
Per acquistare i Proceedings clicca qui:
http://www.filodirittoeditore.com/index.php?route=product/product&path=67&product_id=149

Contribution selected by Filodiritto among those published in the Proceedings “International Conference on Economics and Social Sciences – Challanges and Trends in Economic and Social Sciences Research - 2018”
To buy the Proceedings click here:
http://www.filodirittoeditore.com/index.php?route=product/product&path=67&product_id=149

[1] Bauer, T.K. (2002). Educational mismatch and wages: a panel analysis. *Economics of Education Review, Volume No. 21* (Issue No.3), pp. 221-229.
[2] Beine, M., Bertoli, S., & Moraga, J.F. (2015). A Practitioners’ Guide to Gravity Models of International Migration. *The World Economy, Volume No. 39*, (Issue No. 4), pp. 496-512.
[3] Carstensen, K., & Toubal, F. (2004). Foreign direct investment in Central and Eastern European countries: a dynamic panel analysis. *Journal of Comparative Economics, Volume No.* 32 (Issue No. 1), pp. 3-22.
[4] Edison, H.E., Levine, R., Ricci, L., & Slak, T. (2002). International financial integration and economic growth. *Journal of International Money and Finance, Volume No. 21* (Issue No. 6), pp. 749-776.
[5] Faist, T. (2006). The Transnational Social Spaces of Migration. *Working Papers – Center on Migration, Citizenship and Development*, No. 10.
[6] Frankel, J. (2010). Are bilateral remittances countercyclical? *Open Economies Review, Volume No. 22* (Issue No. 1), pp 1-16.

[7] Guarnizo, L.E. (2003). The Economics of Transnational Living. *International Migration Review, Volume No. 37* (Issue No. 3), pp. 666-699.
[8] Hernandez, E., & Coutin, S.B. (2006). Remitting subjects: migrants, money and states. *Economy and Society, Volume No. 35* (Issue No. 2), pp. 185-208.
[9] Hsiao, F.S.T., & Hsiao, M.C.W. (2006). FDI, exports, and GDP in East and Southeast Asia—Panel data versus time-series causality analyses. *Journal of Asian Economics, Volume No. 17* (Issue No. 6), pp. 1082-1106.
[10] Hwang, J.T., & Wu, M.J. (2011). Inflation and Economic Growth in China: An Empirical Analysis. *China & World Economy, Volume No. 19* (Issue No. 5), pp. 67-84.
[11] Kapur, D., & McHale, J. (2003). Migration's New Payoff. *Foreign Policy, Volume No. 139*, pp. 48-57.
[12] Mayda, A.M. (2008). International migration: A panel data analysis of the determinants of bilateral flows . *Journal of Population Economics*, Volume No. 23, (Issue No. 4), pp. 1249-1274.
[13] Orozco, M. (2002). Globalization and Migration: The Impact of Family Remittances in Latin America. *Latin American Politics and Society,* Volume No. 44 (Issue No. 2), pp. 41-66.
[14] Sander, C., & Mainbo, S.M. (2005). Migrant Labor Remittances in Africa: Reducing Obstacles to
Developmental Contributions World Bank. *Africa Region Working Paper*, Series No. 64.
[15] Upadhya, C., & Rutten, M. (2012). Migration, Transnational Flows, and Development in India: A Regional Perspective. *Economic and Political Weekly, Volume No. 47* (Issue No. 19), pp. 54-62.
[16] Williams, A.M. (2006). International labour migration and tacit knowledge transactions: a multi-level perspective. *Global Networks, Volume No. 7* (Issue No. 1), pp. 29-50.

Book
[1] Kessler, R.C., & Greenberg, D.F. (1981). *Linear Panel Analysis. Models of Quantitative Change*. New York: Academic Press.
[2] Ratha, D. (2005). *Worker Remittances: An Important and Stable Source of External Development Finance. Global Development Finance 2003: Striving for Stability in Development Finance*, Washington, DC: International Monetary Fund.

Non-English reference
[1] Anghelache, C., Nita, O.G., Badiu, A. (2016). Remiten?ele migran?ilor – o surs? important? ?i stabil? de fonduri externe, în dezvoltarea economic? a unei ??ri, [Remittances of migrants – an important and stable source of foreign funds, in the economic development of a country]. *Romanian Statistical Review, Supliment No. 12*, pp. 79-85.
[2] Manole, S.D., Tache, A., & Tache. M. (2014). Study of regional development through models with panel data.
The Romanian Journal of Statistics, Supliment 8, pp. 1-15.

TAG: *economic development, transactions, migrants, proceedings*