



THE ECONOMIC REPERCUSSIONS OF MIGRATION POLICY: INSIGHTS FROM TURKEY

Tulkin CHULLIEV¹

¹Teacher of ISFT institute

KALIT SO‘ZLAR

Migratsiya siyosati, iqtisodiy o‘shish, to‘g‘ridan-to‘g‘ri xorijiy investitsiyalar (TXI), pul o‘tkazmalari, rivojlanishga rasmiy ko‘mak (RRK), Turkiya, xorijiy valyuta manbalari.

КЛЮЧЕВЫЕ СЛОВА

Миграционная политика, экономический рост, прямые иностранные инвестиции (ПИИ), денежные переводы, официальная помощь в целях развития (ОПР), Турция, источники иностранной валюты.

KEY WORDS

Migration Policy, Economic Growth, Foreign Direct Investment (FDI), Remittances, Official Development Assistance (ODA), Turkey, Foreign Currency Sources.

ANNOTATSIYA

Ushbu maqolada, Turkiyaga alohida e‘tibor qaratgan holda, migratsiya siyosatining iqtisodiy oqibatlarini tahlil qilingan. Maqolada, jumladan, turli xil xorijiy valyuta manbalari, xususan, eksport, to‘g‘ridan-to‘g‘ri xorijiy investitsiyalar (TXI), portfel investitsiyalar, xalqaro kreditlar (rivojlanishga rasmiy ko‘mak) va pul o‘tkazmalari iqtisodiy o‘shishga qanday ta‘sir qilgani o‘rganilgan. Tadqiqot ushbu ta‘silarni baholash uchun ekonometrik modellashtirishdan foydalanadi. Aniqlanishicha, pul o‘tkazmalari tarixan Turkiya iqtisodiyotida muhim rol o‘ynagan bo‘lsa-da, uning ta‘siri vaqt o‘tishi bilan kamayib, o‘z o‘rnini to‘g‘ridan-to‘g‘ri xorijiy investitsiyalarga bo‘shatib bergan. Maqolada ushbu moliyaviy oqimlar va aholi jon boshiga YaIM o‘rtasidagi bog‘liqlik muhokama qilinadi, migratsiya siyosatining kengroq iqtisodiy oqibatlari haqida tushuncha beriladi.

АННОТАЦИЯ

В этой статье рассматриваются экономические последствия миграционной политики с особым акцентом на Турцию. В ней анализируется, как различные источники иностранной валюты, включая экспорт, прямые иностранные инвестиции (ПИИ), портфельные инвестиции, международные займы (включая официальную помощь в целях развития) и денежные переводы, влияют на экономический рост. В исследовании используется эконометрическое моделирование для оценки этих эффектов. В нем установлено, что, хотя денежные переводы исторически играли значительную роль в экономике Турции, со временем их влияние уменьшилось, уступив место прямым иностранным инвестициям (ПИИ). В статье далее обсуждается корреляция между этими финансовыми потоками и ВВП на душу населения, что дает представление о более широких экономических последствиях миграционной политики.

ABSTRACT

This article explores the economic repercussions of migration policy with a particular focus on Turkey. It delves into how various sources of foreign currency, including exports, foreign direct investments (FDI), portfolio investments, international loans (including Official Development Assistance), and remittances, impact economic growth. The study utilizes econometric modeling to assess these effects. It finds that while remittances have historically played a significant role in Turkey's economy, their impact has diminished over time, giving way to FDI. The article further discusses the correlation between these financial flows and GDP per capita, providing insights into the broader economic implications of migration policies.

Introduction. In the modern world, the migration policy implemented by countries is reflected more and more in the economy of these countries. In particular, when we look at the areas directly related to the economy, we can see that the migration policy has its own sphere of influence in each of these areas.

For example, if we look at the labor market, we will see that an effective migration policy in the recipient country will eliminate the labor shortage, develop the sector due to the optimization of employment in the small and medium-sized business sector, and increase the mobility of workers. For the donor country, positive effects can be seen, such as a decrease in the unemployment rate, and an increase in skilled workers for new industries when labor migrants return.

We can also observe a number of positive changes that push the economic growth. In this case, there is an opportunity to reduce overall costs due to the reduction of labor costs in the recipient country. A decrease in costs increases the competitiveness of manufactured goods and creates a favorable investment environment. Also, highly qualified personnel is one of the main factors ensuring innovative activity. In the donor country, there is an opportunity to achieve economic growth due to the effective use of remittances sent by migrants. When talking about remittances, we should take into account that foreign currency can be sourced mainly from 5 directions:

1. Exports;
2. Foreign direct investments (FDI);
3. Portfolio investments;
4. Loans from international financial institutions (including Official Development Assistance);
5. Money transfers of migrant workers and other counterparties.

We will study in detail the impact of these sources on economic growth.

Methodology. The article uses graphic interpretation and econometric modeling, in particular, the multivariate regression method. Taking into account the need for a deeper analysis of the issue, we consider it appropriate to thoroughly study the impact of the above 5 sources on the well-being of the population using statistical methods. A number of scientific works have been carried out in this direction, the most notable of which are works of Catrinescu, Leon-Ledesma, Piracha, Quillin, Akkoyunlu, Siliverstovs, Driffield, Jones, Qese, Kurecic, Luburic, Simovic, Govori and Fejzullahu [1], [2], [3], [5], [6], [8], [10].

Catrinescu, Leon-Ledesma, Piracha and Quillin note that there is no scholarly consensus on the impact of international migrant remittances on sustainable economic development. According to them, researchers have not come to a clear conclusion on the positive or negative effects of remittances on long-term growth [3]. However, it can be noted that remittances are more likely to have a positive effect on economic growth in countries with relatively sound economic and political institutions.

In 2009, Akkoyunlu studied the relationship of migration, foreign trade, international aid and remittances [1]. The main goal was to study the extent to which public policies related to foreign trade, international aid and remittances influence individuals' migration decisions. As a result, higher incomes and economic growth are cited as the main reasons for reducing emigration in countries with a labor surplus. That is, it is emphasized that the difference between incomes in countries is the most important factor for migration. Later, Akkoyunlu and Siliverstovs studied how remittances affect Turkey's GDP [2]. According to this study, remittances are found to contribute to economic growth on the one hand, but on the other hand, it is shown that there is an inverse relationship between economic growth and this indicator.

Driffield and Jones tried to systematically study the impact of FDI, ODA and remittances on economic growth in developing countries [5]. According to the analysis of them, every financial flow occurring in the country is a part of the investment and therefore determines the economic growth. Driffield and Jones interpreted the production function as follows.

$$Y_t = T_t(G_t + \phi A_t + DI_t + FDI_t + \lambda R_t)^\theta$$

where,

Y_t – Production function;

G_t – Funds allocated as investments by government;

A_t – Official development assistance, ODA;

φ – Share of ODA used for investment purposes, $0 < \varphi < 1$;

DI_t – Local (domestic) investment;

FDI_t – Foreign direct investments;

R_t – Money transfers (remittances); T_t – period;

θ is a probability that is decreasing over time, $0 < \theta \leq 1$.

Driffield and Jones believe that both FDI and remittances have a positive impact on economic growth in developing countries. However, the countries receiving these funds must improve the local institutional environment, protect investors, and ensure law enforcement. In this regard, the conclusions of Driffield and Jones [5] are consistent with those of Catrinescu et al. [3].

Qese also found that remittances have a positive effect on economic growth [10], Govori and Fejullahu studied the impact of external financial flows, including FDI, external debt, exports and remittances on GDP and showed that there is a positive effect of remittances [6]. At the same time, Kurecic, Luburic and Simovic studied the positive impact of FDI on GDP [8].

To analyze and model the results accordingly, we examine in more detail the relationship between GDP per capita and four indicators – remittances, FDI, ODA and exports. Here, we use multiple regression analysis. The formulation of the MR model is as follows.

$$y_i = b_0 + b_1 * x_{i1} + b_2 * x_{i2} + \dots + b_p * x_{ip} + e$$

where, for $i = n$ observations,

y_i – dependent variable;

x_i – explanatory (explanatory) variable;

b_0 – y-intercept (constant value);

b_p – slope coefficient of each explanatory variable;

e – model error (residual).

Main results. Analysis shows that countries classified as high-income countries by the World Bank mainly acquire foreign exchange through the first three sources, while middle- and low-income countries [13] acquire foreign exchange through FDI and remittances. However, if we analyze the issue more deeply, we can see that recently the scope of FDI to the second group of countries is decreasing and the volume of remittances is increasing. We can also notice that in the 2000s, remittances to low-income and middle-income countries exceeded ODA. Although these two indicators have always been lower than the FDI, in 2019, for the first time in history, remittances exceeded the TXI. Currently, this trend continues [7].

It is appropriate to analyze the above points in more detail in the case of Turkey. We can see that until 2000, most of the foreign currency entered Turkey through remittances. However, after the 2000s, the situation changed dramatically [12].

As we have shown, after the 2000s, Turkey's systematic institutionalization of the management of international migration flow and its consequences did not bring any results. As a result, the country changed from a remittance-receiving country to a FDI-receiving country.

At this point, we consider it appropriate to give a special assessment of the general situation of money transfers to Turkey. In this case, we consider three different indicators for the period under study – the nominal value of remittances, the real value compared to 1984 and the real value compared to 2019 [11]. It is interesting for us both academically and practically to study the real

value of remittances to Turkey. Looking at the periodization of Turkey’s migration policy, we can see several interrelated phenomena. In particular, in 1995, one of the most important laws related to migration policy was adopted in the country – the amendment to the Turkish Citizenship Law. Based on this amendment, it was determined that the persons who left the country before, but are not currently citizens of Turkey, and their children can be issued a ‘Pink Card’. The owner of this card has the right to live, buy property, leave an inheritance, do business and work in the country. As a result, these cardholders started buying property in Turkey, setting up businesses, and eventually a large flow of money transferred by them started flowing into the country.

However, in the period after 2000, Turkey has become a migration transit country. Turkish immigration to the largest recipient country, Germany, has declined sharply. Moreover, migration in the direction of Turkey-Germany, which continued at a relatively high rate until 2002, took the opposite direction. Also, the adoption of Law No. 4817 on the Work Permit of Foreigners in 2003 further strengthened this trend. The conclusion for this period is that because of the exchange of several generations of Turks in Germany, the Turks who stayed there (they did not transfer money to Turkey), and the Turks who intended to move to Turkey moved. As a result, remittances remained the highest in 1998 at almost \$8.5 billion at the 2019 exchange rate, and this record figure has not been repeated since then.

Considering the above, a reasonable question can be asked: What is the relationship between FDI, ODA and remittances and economic development in Turkey? Specifically, how do these three indicators affect GDP?

Primary analysis shows that while there was a strong correlation between remittances and GDP per capita before the early 2000s, this correlation disappeared after 2001. The most noticeable correlation between FDI and GDP per capita is that there is mostly a positive correlation between the indicators, but the volatility of FDI is very high, while GDP per capita is relatively stable. We can see that there was a positive correlation between ODA and GDP per capita during the period under study [12].

Combining the above studies, we try to study the relationship between Turkey’s economic development (in the example of GDP per capita) and selected indicators. For this purpose, a correlation table was created in order to find out the relationship between the change of Turkey’s GDP per capita and 16 other indicators in 1984-2018. Using this table, a correlation radar was formed (Figure 1).

Figure 1. Correlation radar of selected indicators (16) and GDP per capita for Turkey in 1984-2022 [12].

Correlation radar results can be divided into 5 groups

Table 1.

Correlation distribution between GDP per capita and selected indicators [12].

The degree of correlation with GDP per capita	Indicators
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Strong correlation ($0.7 < r < 1.0$)	2 – FDI; 3 – ODA; 4 – Exports; 5 – Imports 9 – Imports, % of GDP; 11 – Consumption expenditures, relative to GDP in %; 13 – Services, % of GDP;
Correlation ($0.5 < r < 0.69$)	10 – Export, % of GDP;
No or weak correlation ($-0.49 < r < 0.49$)	1 – Remittances; 6 – GDP growth rate, %; 12 – Gross national expenses, % of GDP; 14 – Industry, % of GDP;
Inverse correlation ($-0.69 < r < -0.5$)	8 – Current account balance, % of GDP; 15 – Production, % of GDP;
Strong inverse correlation ($-1.0 < r < -0.7$)	7 – Share of remittances in GDP, %; 16 – Agriculture, % of GDP.

The model we want to evaluate looks like this.

$$GDP \text{ per capita} = b_0 + b_1 * R + b_2 * FDI + b_3 * ODA + b_4 * Exports$$

The results of the multiple regression analysis conducted on the study of the dependence of remittances, FDI, ODA, exports and Turkey’s GDP per capita for the period 1984-2022 showed that the level of reliability of the statistical indicators generated is sufficient. Specifically, the correlation coefficient R is 0.97, the determination coefficient R-squared is 0.94, and the adjusted R-squared is 0.93, which indicates that the approximation is sufficiently accurate, that is, the model explains the existing phenomenon well.

The ANOVA table shows the statistical significance of the independent variable as a predictor of the dependent variable. The F-value and F-significance indicators indicate the overall status of the F-test. The F-test is:

$$N_0: b_1=0, b_2=0, b_3=0, b_4=0;$$

$$N_1: \text{at least one of } b_1, b_2, b_3, b_4 \text{ is different from } 0.$$

Since the F value (136.1) is greater than the P-value, one or all of the explanatory variables can explain the dependent variable. That is, this relationship is not accidental.

In addition, some conclusions can be drawn from the P-values for the independent variables (0.16; 0.0; 0.0; 0.0, respectively). In particular, since the value of 0.16 is greater than $\alpha=0.05$, remittances is not statistically significant in estimating GDP per capita. On the contrary, FDI, ODA and exports are significant in explaining the phenomenon.

Finally, it is also important that the studied independent variables are not potentially multicollinear. To determine this, it is necessary to calculate the correlation between these variables. The calculated correlation table is presented below (see Table 2).

Table 2.

Correlation between the studied explanatory variables [12].

	R	FDI	ODA	Exports
Remittances	1			
FDI	-0.46	1		
ODA	-0.35	0.61	1	
Exports	-0.58	0.80	0.63	1

It can be seen that there is a strong correlation between exports and FDI. At the same time, there is an inverse correlation between remittances and other three indicators, and there is a correlation between ODA, FDI and exports.

According to the results of the above analysis, we can write the model in the following form:

$$GDP_{per\ capita} = 1202.21 + 0.24 * R + 0.2 * FDI + 0.71 * ODA + 0.02 * Exports$$

Conclusion. For Turkey, the statistical significance of ODA in explaining GDP per capita for the period 1984-2022 is stronger than that of remittances, FDI and exports. At the same time, the positive role of remittances in the economy cannot be denied. In this regard, it is necessary to improve the performance of institutions in these countries.

It was proved that in the development of Turkish economy, the remittances of migrant workers had a positive effect on the economy, but, the activities of the institutions directly affecting the sector were optimized. We can also see that migrants' remittances are linked to exchange rates, and we can see that migration destinations can be diversified to get more benefits from the migration process at the government level.

References:

1. Akkoyunlu S. Trade, Aid, Remittances and Migration // SSRN Electronic Journal, 2009. 10.2139/ssrn.1436356.
2. Akkoyunlu S., Siliverstovs B. The Role of Remittances for Economic Growth: Evidence for Turkey, 2013. 10.1007/978-3-319-04078-3_4.
3. Catrinescu N., León-Ledesma, M., Piracha, M., Quillin B. Remittances, Institutions and Economic Growth, 2009. [http://lst-iiiep.iiiep-unesco.org/cgi-bin/wwwi32.exe/fin=epidoc1.in/?t2000=026995/\(100\)](http://lst-iiiep.iiiep-unesco.org/cgi-bin/wwwi32.exe/fin=epidoc1.in/?t2000=026995/(100)).
4. Central Bank of the Republic of Turkey. Balance of Payments Detailed Presentation (BPM6). https://evds2.tcmb.gov.tr/index.php?/evds/serieMarket/collapse_18/5973/DataGroup/english/bie_odayr6/
5. Driffield N., Jones C. Impact of FDI, ODA and Migrant Remittances on Economic Growth in Developing Countries: A Systems Approach // European Journal of Development Research, 2013. 25. 10.1057/ejdr.2013.1.
6. Govori F., Fejzullahu A. External Financial Flows and GDP Growth // Journal of Developing Societies, 2020. 0169796X1989896. 10.1177/0169796X19898964.
7. KNOMAD. Remittances and other external inflows. Accessed March 10, 2020 at <https://www.knomad.org/data/remittances> taken from
8. Kurecic P., Luburić G., Šimović V. The interdependence of GDP per capita and Foreign Direct Investment in the transitional economies of Central and Eastern Europe / 9th Economic and Social Development Conference. – Istanbul, Turkey, 2015.
9. OECD. Inflation (CPI). <https://data.oecd.org/price/inflation-cpi.htm>
10. Qese A. Effect of remittances on GDP, 2014. 10.13140/2.1.1996.8329.
11. US Inflation Calculator. <https://www.usinflationcalculator.com/> compiled by the author.
12. World Bank. Compiled by the author based on data from <https://www.data.worldbank.org>.
13. World Bank. World Bank Country and Lending Groups. <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>. According to the World Bank classification, countries with a Gross National Income (GNI) of less than \$1,026 in fiscal year 2020 are low-income countries (LICs), and countries with an income between \$1,026 and \$12,475 are middle-income countries (MICs). Both Turkey (\$10,420) and Uzbekistan (\$2,020) belong to the group of middle-income countries.