



## REVIEW OF MIGRATION STUDIES CONDUCTED BY THE NATIONAL BANK OF POLAND: METHODOLOGICAL EVOLUTION AND RESEARCH CHALLENGES

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### Abstract

The aim of this article is to present the evolution of migration research conducted by the National Bank of Poland (NBP) in the period 2007–2025 and to identify the main methodological challenges arising under conditions of external shocks. The paper reviews research approaches applied both to Polish emigrants residing abroad and to foreign nationals working in Poland. Particular attention is devoted to methodologies used in studies of immigrants from Ukraine, due to their dominant share in the structure of migration inflows. Data on Ukrainian citizens currently constitute an important component of Poland's balance of payments estimates, including workers' remittances and compensation of employees. The findings highlight the necessity of combining survey data with administrative registers and point to the need for further development of migration research at NBP in the context of a changing geopolitical environment.

**PRZEGLĄD BADAŃ MIGRACYJNYCH NARODOWEGO BANKU POLSKIEGO:  
EWOLUCJA METODYCZNA I WYZWANIA BADAWCZE**

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Słowa kluczowe: Narodowy Bank Polski, badania migracyjne, bilans płatniczy.

**Abstrakt**

Celem niniejszego artykułu jest przedstawienie ewolucji kierunków badań migracyjnych prowadzonych przez Narodowy Bank Polski (NBP) w latach 2007–2025 oraz identyfikacja głównych wyzwań metodycznych w warunkach szoków zewnętrznych. Artykuł dokonuje przeglądu podejść badawczych stosowanych zarówno wobec polskich emigrantów, jak i cudzoziemców pracujących w Polsce. W artykule szczególną uwagę poświęcono metodom badania imigrantów z Ukrainy ze względu na dominujący udział tej grupy w strukturze napływu. Dane o obywatelach Ukrainy stanowią obecnie istotny element szacunków bilansu płatniczego Polski (w tym przekazów pieniężnych i wynagrodzeń pracowników). Wnioski z analizy wskazują na konieczność łączenia danych ankietowych z rejestrami administracyjnymi oraz dalszy rozwój badań migracyjnych w NBP w zmieniającym się otoczeniu geopolitycznym.

## **Introduction**

Contemporary migration processes, encompassing both emigration and immigration, significantly shape the socio-economic situation of developed countries, including Poland. Migrants participate in international flows of labour and capital, affect labour markets, and generate substantial financial transfers that are of importance for the balance of payments.

Poland has for many years experienced a relatively high level of emigration. According to data from the Statistics Poland (GUS, 2025), nearly 1.5 million Polish citizens stayed abroad temporarily for 12 months or longer. Approximately 94% of Polish emigrants resided in European countries, with the largest concentrations recorded in the United Kingdom (415 thousand), Germany (407 thousand), and the Netherlands (132 thousand). The most dynamic growth in Polish emigration, similarly to that observed among emigrants from other Central and Eastern European countries, occurred after accession to the European Union in 2004 (Organiściak-Krzykowska & Machnis-Walasek, 2016, p. 92). This accession was associated with the introduction of new legal regulations that guaranteed citizens of the Member States the freedom of movement and residence within the territory of the EU (Arts. 20 & 21 TFEU), including the right to take up employment in other Member States (Art. 45 TFEU). At the same time,

because of pre-accession negotiations, some Member States were allowed to apply transitional periods regulating access of citizens of the new Member States to their labour markets.

At the same time, a significant phenomenon has been the inflow of immigrants to Poland, particularly from Eastern European countries. In recent years, immigration has partially offset demographic challenges such as declining fertility rates, population ageing, and a lower number of marriages, leading to a positive net migration balance (Fihel *et al.*, 2023, p. 265). These changes underscore the need for systematic monitoring of migration flows, both from the perspective of the labour market and macroeconomic stability.

In response to the growing importance of migration, the National Bank of Poland conducts regular migration surveys, coordinated by the Statistics Department in cooperation with other NBP units. Their aim is to provide data necessary for analytical purposes, including the compilation of the balance of payments, in particular information related to employee compensation and migrants' remittance transfers (NBP, 2024, p. 4), in accordance with the statutory mandate of the central bank (Act of 29 August 1997, *Journal of Laws* of 2020, item 2027). This information is used, *inter alia*, to analyse the impact of migration on the labour market, inflation dynamics, and overall economic equilibrium. The provision of data from migration surveys strengthens the position of the NBP as a key provider of statistical data, alongside the Statistics Poland and the Social Insurance Institution (ZUS). Of particular importance is the analysis of the evolution of NBP migration surveys in the years 2007–2025, a period marked by significant external shocks such as the COVID-19 pandemic and mass migration related to Russia's aggression against Ukraine. These developments necessitated flexible adjustments to the tools and methods applied in migration research.

NBP migration surveys cover both Polish emigrants and foreign nationals undertaking employment in Poland, with a particular focus on immigrants from Ukraine, who have constituted the dominant inflow group in recent years. According to data from the ZUS, at the end of the third quarter of 2025 the number of registered foreign nationals paying contributions to pension and social security amounted to nearly 1.3 million persons, of whom 66% were Ukrainian citizens (ZUS, 2025). Including in the statistics also individuals, including children from Ukraine, holding residence permits in Poland increases the number of foreign nationals from that country to over 1.5 million (Urząd do Spraw Cudzoziemców, 2025), and this figure has increased fivefold over the past four years. The growing scale and changing structure of migration have highlighted the need to integrate survey data with administrative registers.

The aim of this article is to present the evolution of methodological approaches applied in NBP migration surveys in the years 2007–2025 and to identify key research challenges arising from the dynamically changing economic and geopolitical environment.

## **The evolution of NBP migration surveys and methodical challenges**

The National Bank of Poland applies diversified research approaches and evolving methodical frameworks in migration surveys, adapted to changing external conditions, the scope of the research, and the characteristics of the migrant populations under study. A major challenge in conducting these surveys has been sudden migration shocks affecting the Polish economy, including Poland's accession to the European Union and the subsequent intensification of labour emigration, the armed conflict in Ukraine in 2014 accompanied by increased immigration, the COVID-19 pandemic, and the outbreak of the full-scale war in Ukraine in 2022. These developments necessitated continuous improvement of research instruments, measurement scope, and data sources, through the development and modification of survey-based studies, which enable the collection of information unavailable in administrative registers. In the years 2007–2025, the NBP conducted migration surveys covering both emigrants residing abroad and immigrants undertaking employment in Poland, gradually adjusting research methods to evolving conditions.

### **Research on Polish emigration abroad**

Research on Polish emigration abroad constituted the first area of migration studies conducted by the National Bank of Poland (Tab. 1). In the years 2007–2012, these studies focused on Polish emigrants in the United Kingdom and Ireland, reflecting the mass influx of Poles to these countries following the opening of their labour markets. The research employed questionnaire-based interviews carried out as part of diagnostic surveys.

In subsequent years, the geographic scope of the surveys was gradually expanded. In 2009, the Netherlands was included in the research, and in 2010 – Germany, marking the first pilot survey conducted in this region. Early editions of the surveys focused primarily on the analysis of emigrants' labour market activity, migration motives, and remittance behaviours, providing information relevant for Poland's balance of payments statistics.

In 2016–2018, further survey editions were conducted, with particular attention to Poles residing in the United Kingdom, due to the need to assess their migration plans in the context of the country's exit from the European Union, initiated by the referendum of 23 June 2016. The objectives of the surveys included, among others, determining the scale at which temporary emigration was transitioning into settlement migration, identifying changes in remittance patterns, and evaluating the impact of wage differentials and labour market conditions on Polish migration decisions.

Table 1

## NBP studies of Poles abroad

Year	Country	Methods/Techniques	Sample Size	Authors	
2007	United Kingdom	Quantitative, PAPI	800	Hołda <i>et al.</i> (2011, p. 16), Chmielewska (2015, p. 69-71)	
	Ireland	Quantitative, PAPI	800		
2008	United Kingdom	Quantitative, PAPI	1500		
	Ireland	Quantitative, PAPI	1000		
2009	United Kingdom	Quantitative, PAPI	1500		
	Ireland	Quantitative, PAPI	1000		
	Netherlands	Quantitative, PAPI	700		
	Germany	Quantitative, PAPI	300		
2010	United Kingdom	Quantitative, PAPI	1500		Chmielewska (2015, p. 69-71)
	Ireland	Quantitative, PAPI	1000		
	Netherlands	Quantitative, PAPI	700		
	Germany	Quantitative, PAPI	1500		
2011, 2012, 2014	United Kingdom	Quantitative, CAPI	1500		
	Ireland	Quantitative, CAPI	1000		
	Netherlands	Quantitative, CAPI	700		
	Germany	Quantitative, CAPI	1500		
2016	United Kingdom	Quantitative, CAPI	1500	Chmielewska <i>et al.</i> (2017, p. 36)	
	Ireland	Quantitative, CAPI	1000		
	Netherlands	Quantitative, CAPI	700		
	Germany	Quantitative, CAPI	1500		
2018	United Kingdom	Quantitative, CAPI	1500	Chmielewska <i>et al.</i> (2019a, p. 46)	
	Norway	Quantitative, CAPI	700		
	Netherlands	Quantitative, CAPI	700		
	Germany	Quantitative, CAPI	1500		
2022	United Kingdom	Quantitative, CAPI	1000	Chmielewska-Kalińska <i>et al.</i> (2023a, p. 47)	
	Netherlands	Quantitative, CAPI	500		
	Germany	Quantitative, CAPI	1000		
2024	Germany	Quantitative, CAWI	400, 1000	N/A	
2025	Germany	Quantitative, CAWI	400, 1000	N/A	

Source: own study based on secondary data from various NBP and OBMF reports.

In all survey editions, a stratified purposive sampling method was applied, with regions covered by the survey serving as strata. Within each stratum, respondents were selected according to a specified age structure, considering minimum criteria for gender, occupation, and employment sector. These criteria were adjusted for the specific characteristics of the labour markets in each country, allowing for a more accurate representation of the surveyed emigrant populations.

Continuing the principle of survey cyclicity (on average every two years), in 2018 another edition of the emigration surveys was conducted in four countries. Ireland was replaced by Norway, justified by the observed decline in the number of emigrants heading to Ireland and the growing importance of Norway as a destination for Polish labour migration. The research objectives included, among others, assessing the impact of Polish then-record low unemployment on migration decisions, analysing the characteristics of emigration to Norway, identifying trends in remittance transfers, and evaluating the effect of Brexit on the situation of emigrants in the United Kingdom. Methodically, the survey maintained continuity with previous editions. It examined the specific features of Polish emigration to Norway, trends in remittance behaviour, and whether Brexit had altered emigrants' plans and their circumstances in the UK. The emigration survey followed similar methodological assumptions to the previous edition of studies abroad. In 2020, due to constraints resulting from the COVID-19 pandemic, surveys on Polish emigration were not conducted. The next edition was carried out in 2022, representing the most recent emigration study published as a technical report.

## **Research on immigration of foreign nationals to Poland**

Since 2012, the scope of migration surveys conducted by the National Bank of Poland has been expanded to include the immigration of foreign nationals to Poland, initially focusing on citizens of Ukraine, Belarus, and Russia, who at that time constituted the dominant groups of labour migrants (Górny *et al.*, 2013) (Tab. 2). The main objective of the 2012 survey was to assess the scale and nature of labour immigration from Ukraine, estimate the volume of remittance transfers, and test selected methodological solutions in the study of migrant populations.

The survey compared two sampling strategies: purposive stratified sampling, based on criteria such as citizenship or employment sector, and Respondent Driven Sampling (RDS), a chain-referral method utilizing migrants' social networks and an incentive system. RDS is a more formalized method than the "snowball" approach and, when certain assumptions are met, allows for unbiased estimation of population parameters (Gile, 2011), making it a useful tool for studying hard-to-reach groups. RDS was applied in subsequent survey editions until 2020, when its use was limited by rising costs and pandemic-related restrictions that hindered respondent recruitment.

In the 2015 survey, designed to capture a new wave of migration after 2014, a mixed-methods approach was employed. The quantitative component targeted Ukrainian immigrants residing in Warsaw, excluding migrants who had arrived for non-labour purposes. The qualitative component included

Table 2

## NBP studies of foreigners in Poland

Year	Country	Methods/Techniques	Sample Size	Authors
2012	Ukrainians	Quantitative, RDS, PAPI	500	Górny <i>et al.</i> (2013, p. 16)
	Belarusians	Quantitative, RDS, PAPI	500	
	Russians	Quantitative, RDS, PAPI	500	
2015	Ukrainians (WAW)	Quantitative, RDS, PAPI	710	Chmielewska <i>et al.</i> (2016, p. 32)
	Local authorities	Qualitative, Interviews	62	
2016,	Ukrainians (WAW)	Quantitative, RDS, PAPI	400	Chmielewska <i>et al.</i> (2018, p. 35)
2017	Ukrainians (LUB)	Quantitative, RDS, PAPI	400	
2018,	Ukrainians (WRO)	Quantitative, RDS, PAPI	500	Chmielewska <i>et al.</i> (2019b, p. 8)
2019	Ukrainians (BDG)	Quantitative, RDS, PAPI	310	
2019	Ukrainians (WAW)	Quantitative, RDS, PAPI	1319	Górny <i>et al.</i> (2020, p. 17)
2019,	Ukrainians	Quantitative, PAPI	2981	Strzelecki (2020, p. 21)
	2020	Polish entrepreneurs	Quantitative, CATI, CAWI	
2020	Ukrainians (WAW)	Quantitative, RDS, CATI/CAWI	296	Górny <i>et al.</i> (2021, p. 21)
	Ukrainians (WRO)	Quantitative, RDS, PAPI	510	Strzelecki & Dudek (2021, p. 5)
2022	Ukrainians	Quantitative, PAPI	3165	Chmielewska-Kalińska <i>et al.</i> (2022, p. 6)
	Ukrainians	Quantitative, PAPI	3934	Chmielewska-Kalińska <i>et al.</i> (2023b, p. 6)
2023	Ukrainians	Quantitative, PAPI	3658	Dudek <i>et al.</i> (2023, p. 45)
2024	Ukrainians	Quantitative, PAPI	3778	Dudek <i>et al.</i> (2024a, p. 30)
	Belarusians	Quantitative, PAPI	775	Dudek <i>et al.</i> (2024b, p. 40)
2025	Ukrainians	Quantitative, PAPI	3965	Dudek & Strzelecki (2025a, p.71)
	Belarusians	Quantitative, PAPI	750	Dudek & Strzelecki (2025b, p. 28)

Source: own study based on secondary data from various NBP reports.

62 in-depth interviews with local authorities and employers in the Grójec and Płońsk regions. The questions addressed the socio-economic characteristics of migrants and remittance transfers.

In response to the mass migration triggered by the war in Ukraine, the NBP launched a nationwide survey encompassing both labour migrants who arrived before 24 February 2022 and war refugees, reflecting the distinction between voluntary and forced migration. This distinction has been widely discussed

in the scholarly literature (Carling, 2024). In the initial waves of migration, the predominant motivation was the pursuit of improved economic conditions, whereas after the outbreak of the war, migration patterns changed, transforming into a different form of mobility (King *et al.*, 2022, p. 6, 7).

In surveys conducted after 2022, results were weighted based on the PESEL-UKR register, which improved the representativeness of the findings, particularly for the population of forced migrants. The survey was repeated in 2023, expanding its thematic scope to include the participation of immigrant children in the Polish education system, while maintaining comparable methodological assumptions. In 2024, the scope of the research was further extended to include immigrants from Belarus, who constituted the second-largest group of foreign nationals in Poland (Dolińska & Makaro, 2024, p. 5). At the same time, studies among Ukrainian citizens were continued, with the scope broadened to cover issues of social integration, economic self-sufficiency, and regional diversity. Since 2025, the National Bank of Poland's immigration surveys have been conducted based on the established methodology, with an increased focus on regional analyses carried out in collaboration with staff from NBP's regional branches.

## **Methodical challenges in migration studies conducted by the NBP**

The most recent immigration surveys conducted between 2022 and 2025 revealed a range of organizational and methodological challenges that significantly affected the implementation and conduct of interviews (Tab. 3). A systematic decline in respondents' willingness to participate in the surveys was observed, with some cases marked by distrust toward interviewers and doubts regarding the purpose of the study. Significant support in contacting respondents was provided by foundations and non-governmental organizations, which enjoyed the trust of immigrants and often acted as mediators, facilitating access to the surveyed population.

Another important challenge was the logistical difficulty of reaching immigrants employed in small towns. The increasing dispersion of the target population complicated fieldwork. Additionally, restrictions stemming from sampling criteria, particularly limits on the number of respondents that could be recruited within a single institution or workplace, proved difficult to implement in practice. During the surveys, a need for modifications to research instruments was also noted, such as the introduction of electronic questionnaire versions and the shortening of survey questions to improve response rates.

Table 3

Methodical challenges in migration studies conducted by the NBP and mitigation measurers

Methodical Challenge	Challenge Description	Mitigation Strategy
Declining participation	Distrust of researchers, privacy concerns, lack of time or motivation	Engaging new organizations and associations to mediate with respondents; providing small incentives for participation
Sudden migration changes	Rapid shocks (COVID-19, Ukraine war) limited previous research frameworks	Flexible study design, nationwide surveys, rapid adaptation of tools, increased survey frequency
Hard-to-reach populations	Migrants in agriculture, informal sectors, smaller towns, mobile or wealthy	Introduction of electronic forms (from 2025); use of social organizations and local institutions as intermediaries
High costs of RDS sampling	Respondent Driven Sampling (RDS) is costly and operationally challenging	Gradual shift from RDS after 2020 to standardized methods supported by administrative data
Maintaining longitudinal comparability	Expanding survey scope risks losing comparability between waves	Keep core questionnaire constant, add thematic modules for emerging topics
Regional migration differences	Significant regional variation reduces usefulness of national averages	Strengthen regional analyses; involve regional branches of NBP in data collection
Sensitivity of questions	Respondents reluctant to answer questions on wages or percentages	Anonymous surveys with confidentiality statement; use Likert scales for sensitive items

Source: own elaboration based on feedback from NBP regional branches.

## Practical implications

The results of the survey have not only cognitive value but also significant practical importance, as they constitute one of the primary sources of information used to estimate the components of the current account of the balance of payments. In balance of payments statistics, migration processes are reflected in four main items. These are, respectively: compensation of employees (definition according to BPM6, A5.12), expenditures of seasonal and border workers (BPM6, 4.125), taxes and social contributions (BPM6, 12.28), and workers' remittances (BPM6, 12.22). In accordance with balance of payments principles, all transactions between residents and non-residents of a given country are recorded, including those involving institutions, international organizations, and individuals (BPM6, 2009, p. 7).

A resident is defined as an individual whose centre of economic interests is located within a given country and who resides there for a minimum of 12 months. Migration surveys are an important source of information on the structure

and characteristics of specific migrant groups, which is applied in estimating inflows and outflows within the balance of payments. They allow for the determination of key economic parameters, such as average wage levels, the frequency of financial transfers, and living costs. These data, supplemented with administrative information (e.g., from ZUS, GUS, and various ministries), form the basis for estimating individual components of the balance of payments.

The presented data (Tab. 4) and (Tab. 5) illustrate outflows from Poland related to the employment of foreign workers, including Ukrainian citizens, in the years 2014–2024.

Table 4

## Outflows from Poland related to the employment of foreign workers

Bln PLN	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Compensation of employees	6.3	8.9	13.9	22.8	25.5	28.5	27.9	32.5	40.0	39.2	24.3
Taxes and social contributions paid abroad	0.4	0.8	1.2	1.9	2.6	3.0	2.5	3.3	5.4	5.4	4.3
Expenditures of seasonal and border workers	2.1	3.0	4.7	7.8	8.7	9.7	9.5	11.1	13.6	13.4	8.3
Workers' remittances	0.6	0.8	0.8	1.1	1.6	2.3	2.9	3.9	5.3	7.7	6.8
Personal remittances	4.4	5.9	8.8	14.2	15.9	18.1	18.8	22.0	26.2	28.1	18.5

Source: own elaboration based on NBP balance of payments data.

Table 5

## Outflows from Poland related to the employment of Ukrainian workers

Bln PLN	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Compensation of employees	5.4	8.0	12.6	20.7	22.6	24.9	24.0	26.7	27.5	23.6	16.3
Taxes and social contributions paid abroad	0.1	0.4	0.7	1.4	1.8	2.1	1.7	2.1	3.3	2.9	2.1
Expenditures of seasonal and border workers	1.9	2.8	4.3	7.1	7.7	8.5	8.2	9.1	9.4	8.1	5.6
Workers' remittances	0.1	0.2	0.3	0.5	0.9	1.3	1.8	2.5	3.4	4.9	4.3
Personal remittances	3.6	5.0	7.8	12.8	13.9	15.7	15.9	17.9	18.2	17.5	12.9

Source: own elaboration based on NBP balance of payments data.

During the period under analysis, a marked increase in compensation of employees and expenditures of seasonal and cross-border workers is observed, particularly during so-called migration shocks, characterised by a sudden rise in the number of migrants in Poland. At the same time, the data indicate the growing importance of workers' remittances sent to their countries of origin, although the pace of this growth noticeably slowed in 2023.

This slowdown was associated, among other factors, with the prolonged armed conflict in Ukraine, as a result of which some Ukrainian citizens residing in Poland for more than one year became residents of Poland for balance of payments purposes. An additional factor reducing the growth rate was the declining share of migrants sending money abroad between 2022 and 2024. In 2024, only 55% of pre-war migrants and 30% of war refugees reported making remittance transfers (Dudek *et al.*, 2024a, p. 28).

Analysis of balance of payments data also indicates a systematic increase in inflows from taxes and social security contributions up to 2023. In 2024, the flow of fiscal revenues decreased, which may be related to the transition of migration from temporary forms toward more permanent settlement. In 2024, 48% of pre-war migrants and 21% of war refugees expressed the intention to settle permanently (Dudek *et al.*, 2024a, p. 33).

The changes observed in balance of payments data highlight the validity and necessity of conducting regular migration surveys, which enable proper interpretation and reliable estimation of the individual components of the balance of payments.

## Conclusions

Migration surveys conducted by the National Bank of Poland are empirical in nature and provide essential data for economic analyses, particularly for compiling the balance of payments, including estimates of workers' remittances and compensation of employees. Conducted cyclically across all voivodeships, they are among the largest surveys of this type in the country and allow for systematic observation of migration trends over time and across regions. Beyond the economic dimension, the surveys also cover socio-demographic aspects, such as residence plans, social integration, and age and gender structure. A key strength of these surveys is their methodological flexibility and the ability to rapidly adapt research tools to changing economic and geopolitical conditions, including the opening of EU labour markets, conflicts in Ukraine, the COVID-19 pandemic, and the escalation of the war in 2022.

Combining survey data with administrative registers and official statistics allows for a more comprehensive understanding of migration processes. At the same time, effective estimation of the balance of payments requires close institutional cooperation, as official data sources remain incomplete and poorly synchronized, particularly with regard to the foreign labour market. Despite their high cognitive value, migration surveys face limitations such as difficulties in ensuring sample representativeness, reaching hard-to-access groups, respondent errors, rising costs, and organizational complexity.

Future development of migration research should therefore go hand in hand with improved access to up-to-date public data and the integration of administrative registers based on PESEL register and Border Guard records. The changing migration landscape also requires further evolution of sampling methods, expansion of the survey scope beyond dominant migrant groups, and the development of panel approaches. Survey research may be complemented by alternative data sources, including payment card transaction data. In this evolving migration context, the continued enhancement of NBP migration surveys remains crucial for maintaining their high analytical and practical utility.

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