



Bulgarian National Bank

Methodology for Estimation of Item Workers' Remittances, Credit

**Statistics Directorate
Balance of Payments and External Debt Division**

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Appendix

1. Introduction

The importance of emigrant transfers to relatives and friends in home countries is significant and it has been increasing. Many institutions focus in their analysis on the impact of workers' remittances on economic development (EUROSTAT, 2007)¹. These flows are regarded as an important source for external financing and as one of the driving forces behind the economic growth in developing and emerging economies. Emigrant transfers reduce poverty and have a positive influence on savings and investment (WB, 2006)².

Emigrant flows are important not only as an analytical item themselves but also as a significant element of the current account of the balance of payments, item *Secondary Income*. This necessitates the adoption of a well working methodology for estimation of these flows and if possible its improvement and development over time.

2. Workers' Remittances - definition

Since 2015 the Bulgarian National Bank (BNB) has been publishing monthly balance of payments data in accordance with the Sixth Edition of the *Balance of Payments and International Investment Position Manual*³. Historical data in accordance with the new manual is available for the periods after January 1998.

The Sixth Edition of the *Balance of Payments and Investment Position Manual* introduces a new item - Personal Transfers. The item is defined as follows: "Personal transfers consist of all current transfers in cash or in kind made or received by resident households to or from other non-resident households."

The item Workers' Remittances is retained only as a supplementary item and is recorded as "of which" item of Personal Transfers.

3. Model for Estimation of Item Workers' Remittances

A *Border Survey among Traveling Bulgarians and Foreigners* conducted by the BNB during the period July 2007 – August 2008, created the opportunity to survey long-term Bulgarian emigrants for the purposes of the balance of payments statistics. The primary data showed that a significant part of annual workers' remittances consisted of low in value amounts (below the reporting thresholds at that time); that transfers of an emigrant to home country were made in portions throughout the year and that a large portion of the transfers are carried out via unofficial channels (different from banks and MTOs).

¹ EUROSTAT (2007), Results of the Ad Hoc Survey on Remittances, European Commission

² World Bank (2006), *Migration and Remittances: Eastern Europe and the Former Soviet Union*; World Bank (2006), *General Principles for International Remittance Services*, Committee on Payment and Settlement Systems

³ Balance of Payments and International Investment Position Manual, Sixth Edition (BPM6, IMF, 2008): <https://www.imf.org/external/pubs/ft/bop/2007/pdf/bpm6.pdf>

The model presented in this section is based on the data obtained through the border survey. Historical data based on this model are available for the periods after January 2007.

Basic Model⁴

The estimations of workers' remittances are based on the multiplication of the number of long-term Bulgarian emigrants remitting to related persons by the average transfer, where these calculations are made for flows via official and via unofficial channels. The sum of flows via the two transfer channels constitutes the total amount of workers' remittances, credit.

As of 1 August 2016, with the abolishment of paragraphs (1), (2), (3), (4) of art. 7 in the Foreign Exchange Act, the suppliers of payment services were relieved of their obligation to maintain registers and to report to the BNB cross-border transactions for balance of payments purposes. Due to these amendments data on flows via official channels after August 2016 are based on BNB's estimates.

The number of Bulgarian emigrants is segmented by country of residence. Due to lack of enough observations by country breakdown from the border survey, the transfer averages are calculated as an aggregate for all countries.

The BNB collected data on Bulgarian emigrants abroad by country of residence and corrected the data according to the definitions of the *Balance of Payments Manual*. Information on the number of Bulgarian emigrants, remitting to Bulgaria, as a percentage of the total Bulgarian long-term emigrant population and on the amount of the average transfer (respectively for the groups sending via official and via unofficial channels) are based on the border survey. Section 3.2 and section 3.3 discuss these issues in detail.

3.1. Number of Bulgarian emigrants

In May 2007 the BNB asked for assistance the Ministry of Foreign Affairs in collecting data on Bulgarian emigrants. A brief reporting form was provided to the Ministry, asking for annual stock data on long-term Bulgarian emigrants for the period 2001 – 2006. Instructions for filling out the data were enclosed to the reporting form and those instructions provided basic definitions in accordance with the *Balance of Payments Manual* and asked for providing both data and details on the data in terms of coverage and definitions. The data provided by the Ministry came from two sources – first, the Government Agency for Bulgarians Abroad and second, the Bulgarian Embassies abroad.

The collected data on Bulgarian emigrants were based almost entirely on the data, received from the first source – the Government Agency for Bulgarians Abroad. For countries where no such

⁴ Other compilation methods for workers' remittances are systemised and presented in *Remittances Compilation Guide, 2009* (the Luxembourg Group on Remittances).

information is provided the data from the embassies are used (mainly for countries in which the number of Bulgarian emigrants is small). The reason for using data from the Agency, rather than data from the embassies, is that its numbers included also information on illegal Bulgarian emigrants as well as on emigrants with official residency. The data from the embassies contain only official data, which in most cases underestimate the actual figures.

In most cases the data from the Agency is based on unofficial data sources, almost entirely on data from Bulgarian Community Organisations abroad and is complemented by expert estimates. Additional adjustments of the figures by country of residence are made by the Agency in order to achieve numbers of “new” emigrants only (those who left Bulgaria after 1989). Of the latter, in addition, are excluded the students and the short-term emigrants (seasonal workers). The adjustments are made in compliance with the balance of payments definitions and under the assumption that the population of potential remitters is formed mainly by “new” emigrants.

After 2011 regular adjustments to the data on the number of Bulgarian emigrants are made on the basis of information from the NSI and from the Eurostat.

3.2. Percentage of Remitters

In the *Border Survey among Travelling Bulgarians and Foreigners* a special section is devoted to the collection of data from Bulgarian emigrants, who have returned for a short visit to Bulgaria. The questions addressed to the emigrant-respondents are presented in section A1 in the appendix. The emigrants are surveyed when entering Bulgaria.

On the basis of responses to the question regarding different money transfer channels the percentage of emigrants who transfer via official channels (via banks and via MTOs) and via unofficial channels (all other ways) is determined – see Q34 in the questionnaire, appendix 1.

The figures presented in table 2 are based on 1609 observations among the working abroad emigrant respondents out of total 1948 observations.

Table 2. Transfer Channels

WORKING EMIGRANTS		
Unofficial Channel	Official Channel	Donot Remit
15.4%	36.9%	47.7%

In order to be applied to the total population of potential Bulgarian remitters abroad these figures have to be adjusted by a coefficient, determining the group of working emigrants as a percentage of the total population of potential Bulgarian remitters.

This adjustment is achieved by an additional indicator calculated on the basis of the survey data on the share of working emigrants in the total number of emigrants (see Q32 from the questionnaire, appendix 1). In order to avoid distortions of the estimate only those observations are used in which simultaneously both questions are filled in – for number of working and number of living persons in a given household. This percentage indicator is 78.98%.

The percentage shares of the transfer channels, corrected with the indicator of share of working emigrants, renders the information on percentage of working emigrants, who remit in the total number of potentially remitting emigrants.

3.3. Estimate of an average transfer

Analysis of the survey data showed a significant difference between the transfer averages via the two main transfer channels – official and unofficial. As a result a separate estimate of the emigrant transfers is used depending on the transfer channel – official and unofficial. The transfer averages for each transfer channel are on based on data on all countries of emigrant residency represented in the survey. The reference year is 2006. For preceding and following years in the calculations of transfer averages the survey data are corrected with consumer price indexes by geographical breakdown.

4. Revision Policy

Data are revised annually with the balance of payments revisions for up to three preceding years in March of each calendar year.

The revisions are based on up-to-date information on consumer prices and the number of Bulgarian emigrants abroad (sources: the IMF, the EUROSTAT, the OECD, the NSI).

Appendix 1. Questionnaire (Questions Pertaining to Long-Term Bulgarian Emigrants)

B1. How old are you? <div style="display: flex; align-items: center; margin-top: 5px;"> <input style="width: 60px; height: 20px; border: 1px solid black;" type="text"/> Years old </div> <div style="margin-top: 5px;"> Under the age of 18 → <i>do not conduct the interview</i> </div>	
B2. Your gender? Male 1 Female 2	
B3. What is your nationality (the one of your passport with which you are entering the country)? <div style="margin-top: 10px;"> <input style="width: 300px; height: 25px; border: 1px solid black;" type="text"/> </div> <div style="margin-top: 5px;"> Different from Bulgarian → <i>do not conduct the interview</i> </div>	
B4. In which country do you normally live? <div style="margin-top: 10px;"> <input style="width: 300px; height: 25px; border: 1px solid black;" type="text"/> </div> <div style="margin-top: 5px;"> Different from Bulgaria → <i>go to BLOCK B</i> </div>	
BLOCK B <i>I normally live abroad</i>	
B31. For how long have you been living abroad?	
Number: <input style="width: 80px; height: 25px; border: 1px solid black;" type="text"/> years	
B32. How many members of your family (including you) live and work abroad?	
<div style="display: flex; justify-content: space-around; align-items: flex-start; margin-top: 10px;"> <div style="text-align: center;"> LIVE: Number: <input style="width: 60px; height: 25px; border: 1px solid black;" type="text"/> members </div> <div style="text-align: center;"> WORK: <input style="width: 60px; height: 25px; border: 1px solid black;" type="text"/> members </div> </div>	
B33. Would you please estimate the value of financial support (in cash or in kind) you (personally) have sent to your relatives in Bulgaria in the last year?	
IN CASH:	
Sum: <input style="width: 120px; height: 25px; border: 1px solid black;" type="text"/>	Currency: <input style="width: 120px; height: 25px; border: 1px solid black;" type="text"/>
IN KIND:	
Sum: <input style="width: 120px; height: 25px; border: 1px solid black;" type="text"/>	Currency: <input style="width: 120px; height: 25px; border: 1px solid black;" type="text"/>
B34. In what way did you send money to your relatives in Bulgaria?	
<div style="margin-top: 10px;"> Bank Transfer.....1 Via Money Gram, Western Union, etc.....2 Hand-carrying (when travelling).....3 I do not send money.....4 → <i>go to B36</i> </div>	
B35. In average how many times a year do you send money?	
Number: <input style="width: 80px; height: 25px; border: 1px solid black;" type="text"/>	times
B36. What is your occupation?	
<div style="margin-top: 5px;"> Employee/Self-employed.....1 Student2 Other3 </div>	