

## **NEW ESTIMATION METHOD OF LABOUR INCOME FROM ABROAD IN THE BALANCE OF PAYMENTS STATISTICS**

*Data was revised starting from Q1 2004*

This paper outlines new method for estimating compensation of employees and workers' remittances to Poland. Since Polish membership in the EU, we observe strong growth of labor emigration. Therefore a brand new concept for estimating Polish workers abroad income has been developed. The paper, apart from the abovementioned regular bop components, also presents estimated volume of actual funds' inflow, which exercise a significant influence on the standing of households as well as on the national economy.

### **Main conclusions from new estimation method:**

- Polish labour migration concentrates in United Kingdom, Ireland and Germany.
- In United Kingdom and Ireland that migration has long-term character (longer then one year), however in Germany character of labour migration is opposite- short-term (mainly seasonal workers in agriculture).
- In 2007 short and long-term emigrants transferred to Poland more then PLN 20 billions. Despite steadily appreciation of Polish zloty, it is more then two times more then in 2004.
- Share of United Kingdom and Ireland in the total volume of transfers has been increasing over the last few years. Decrease on the other hand has been reported for Germany.
- In the rest of world we should also notice other countries from which Polish labour migration transfer money to Poland: USA, Italy, the Netherlands, France and Norway.
- Change of estimation method of compensation of employees and workers' remittances results in relatively small improvement of current account to GDP ratio and also results in an increase of Gross National Income (GNI).

## FUNDS TRANSFERRED TO POLAND

From balance of payments data there is no possibility to find directly amount of the funds transferred. However that amount has fundamental implication for perception of households finance, because it improves their disposal income. Therefore NBP estimated that funds.

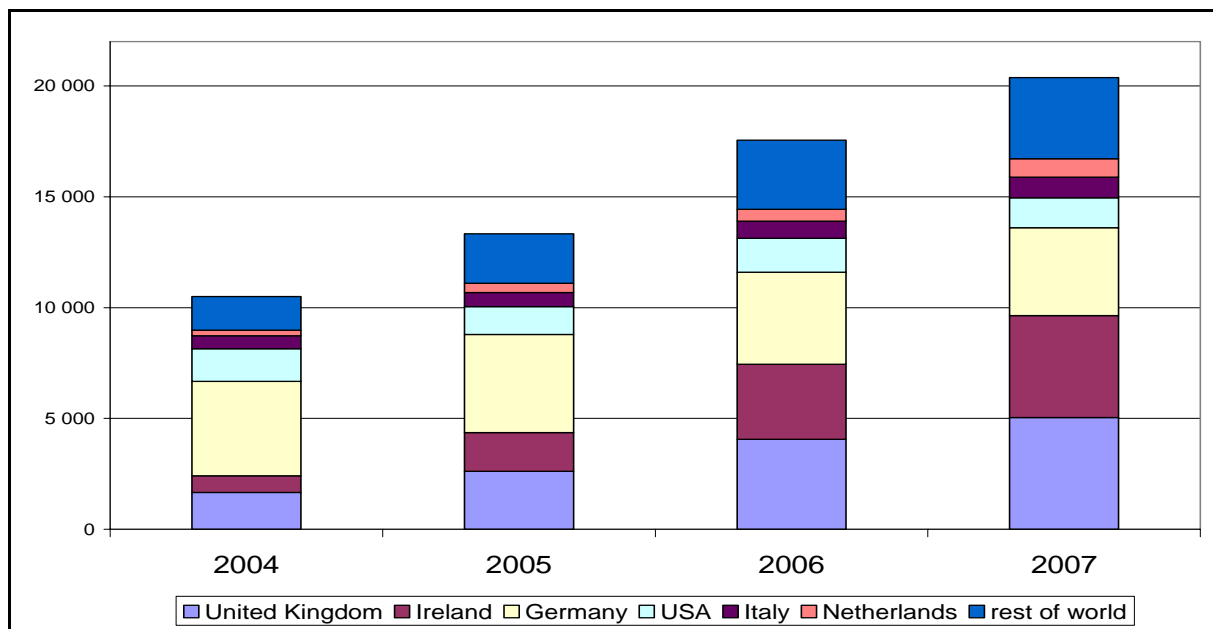
In 2007 over PLN 20 billion has been transferred to Poland by Poles working abroad. These amounts doubled during the past two years.

**Table 1. Transfers to Poland against Polish workers earnings abroad (in PLN million).**

	2004	2005	2006	2007
Funds transferred to Poland	10 496	13 332	17 559	20 374

In period 2004 – 2007 the fastest increase has been observed in transfers from Ireland and United Kingdom. In 2007 transfers from those countries were the biggest and amounted to 5 and 4.6 PLN billions respectively. Third most important state in that regard was Germany, which has lost the leadership position from back in 2005. In 2007 PLN 3.9 billions was transferred from Germany to Poland.

**Chart 1. Geographical breakdown of transfers to Poland (in PLN million).**



United States also proved significant source of money transfers to Poland. However its share in the total volume of transfers has been decreasing over the last few years. Increase on the other hand has been reported for European states such as: Italy, the Netherlands, France and Norway.

## ANALYSIS OF REVISIONS IN BOP DATA

In the balance of payments statistics there are basically two items provided for the income earned abroad: compensation of employees (part of income component) and workers' remittances (part of current transfers). First from these categories, compensation of employees, includes whole earnings of short-term (less than one year) Polish workers abroad. Workers' remittances includes only that part of earnings which was really transferred to Poland by long-term workers (those persons who work abroad for more than one year), who has centre of economic interest in the host economy.

The table below captures comparison of data published so far and data estimated with the application of new method.

**Table 2. Compensation of employees and workers' remittances (in PLN million) .**

	2004	2005	2006	2007
<b>Compensation of employees</b>				
New estimation	13 110	15 127	17 130	17 506
Data published	1 300	1 443	1 777	2 153
<b>Workers' remittances</b>				
New estimation	4 074	5 911	9 139	11 776
Data published	8 400	10 058	11 679	13 304

Estimations show, that in 2007 compensation of Polish employees working abroad amounted to PLN 17.5 billion. The above result is significantly higher when compared with the published data (over PLN 15 billion). Workers' remittances on the other hand, have decreased when compared with data published. It is result of movement of part funds included in workers' remittances to compensation of employees. That funds concern Polish workers in Germany. Significant adjustments of compensation of employees and workers' remittances influence changes in the current account balance<sup>1</sup> and consequently its ratio to the GDP.

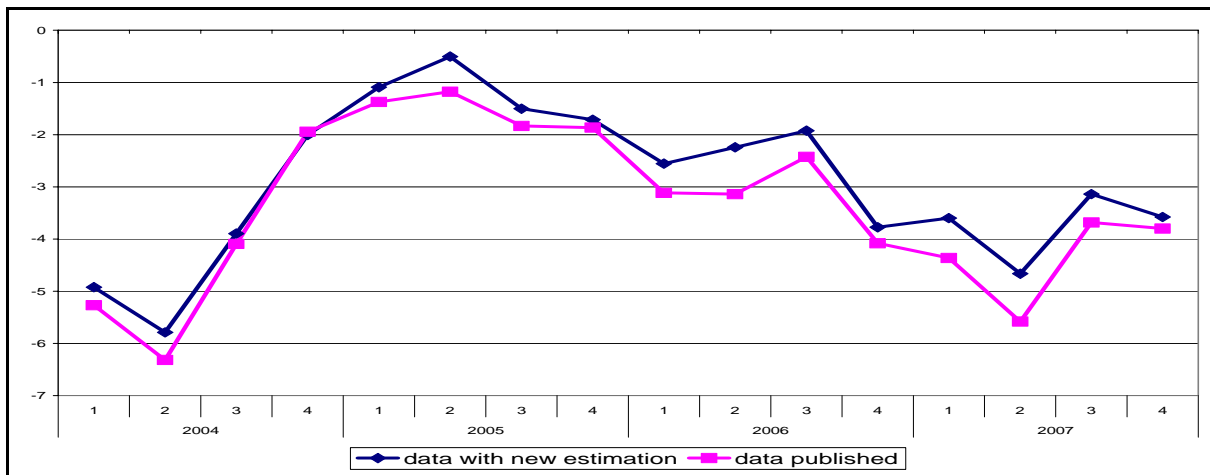
**Table 3. Current account balance – estimations vs. published data (in PLN million) .**

	2004	2005	2006	2007
data published	-39 781	-15 488	-34 185	-50 332
data with new estimation	-37 533	-12 014	-28 310	-43 437
difference	2 248	3 474	5 875	6 895

As a result of new estimation method ratio of the current account to GDP improve 0,6 percentage point in 2007 (from minus 4,7% before to minus 3,7% after adjustment).

<sup>1</sup> There are four essential factors contributing to the current account adjustments. On the side of credits (positive adjustment) those are compensation of employees and workers' remittances. On the side of debits (negative adjustment) those are private transfers (taxes paid by temporary workers for the benefit of other states) and travel (accommodation expenditure by temporary workers).

Chart 2. Current account to GDP – estimations vs. published data (%).



New estimation method of compensation of employees improves also income amount in BoP what has a positive impact on the Gross National Income .

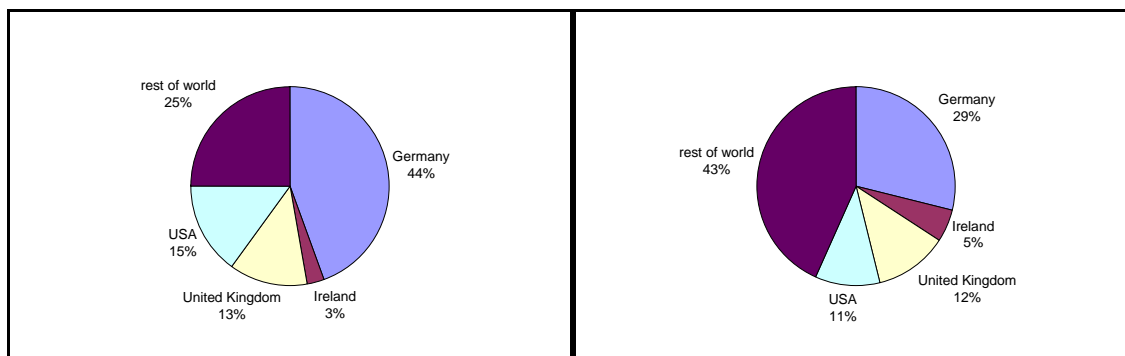
**Compensation of employees** (in bop part of *income* component) throughout 2004-2007 have been revealing a tendency for growth, which is in line with the labor migration tendencies among Poles.

Table 4. Compensation of employees (in PLN million).

	2004	2005	2006	2007
<b>Total</b>	<b>13 110</b>	<b>15 127</b>	<b>17 130</b>	<b>17 506</b>
EU 27	10 399	12 460	13 319	13 898
Germany	5 815	6 270	5 500	5 074
Ireland	390	627	960	893
United Kingdom	1 660	1 719	2 147	2 109
extra EU 27	2 711	2 667	3 811	3 608
US	1 973	1 720	2 143	1 840

Analysis of compensation of employees' geographical breakdown clearly indicates Germany to be the most significant state in this category. In 2004-2007 compensation of Polish temporary workers in Germany stood over PLN 5 billion. During the period in question however the geographical breakdown of those had undergone some decisive changes. In 2004 Germany had had 44% of total compensation of employees whereas in 2007 its share in geographical breakdown thereof was only 29%. A decrease has also been observed in the share of United Kingdom, Ireland and the United States. This phenomenon results from the increase in share of such European states as the Netherlands, Italy, Norway and France.

**Chart 3. Geographical breakdown of compensation of employees in 2004 (left) and 2007 (right).**



**Workers' remittances** (in the bop under *private transfers*) – throughout last four years a significant growth of long-term migration out of Poland could have been observed. This migration results in a robust growth of workers' remittances. In 2007, workers' remittances tripled when compared with 2004.

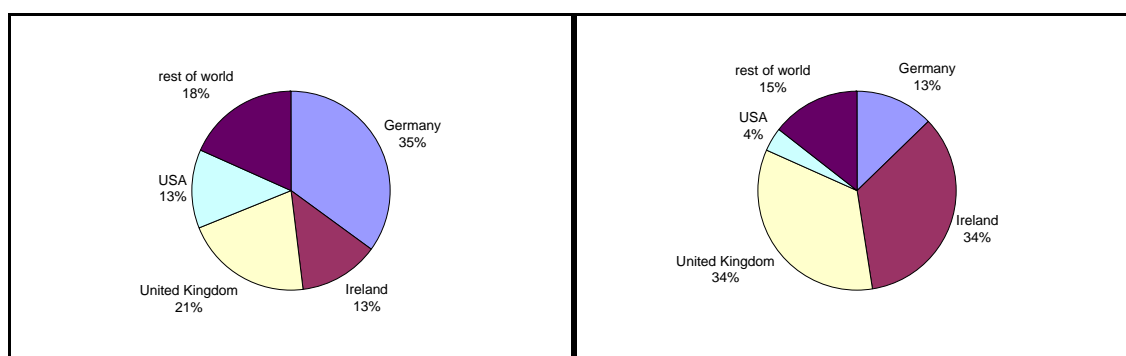
**Table 5. Workers' remittances (in PLN million).**

	2004	2005	2006	2007
Total	4 074	5 911	9 139	11 776
EU 27	3 369	5 290	8 317	10 896
Germany	1 424	1 367	1 467	1 494
Ireland	534	1 403	2 862	4 109
United Kingdom	853	1 776	3 011	4 009
extra EU 27	705	621	822	880
US	516	414	483	450

The highest increase in workers' remittances have been observed for the EU Member States, United Kingdom and Ireland in particular. In 2004-2007 the said increase has been fivefold and eightfold respectively. During the period in question workers' remittances from Germany and the United States have been standing at a similar level.

Significant change has occurred in the geographical breakdown of workers' remittances. In 2004, Germany has had the leading position (33% of the total) whereas in 2007 United Kingdom and Ireland tied for the first place (34% each).

**Chart 4. Geographical breakdown of workers' remittances in 2004 (left) and 2007 (right).**



New estimation method influences also changes in other components of current account.

Following changes was done:

- taxes paid by Poles (only by short-term workers<sup>2</sup>) to other countries governments, in balance of payments it is part of *private transfers debits*.
- Expenditure by seasonal and border workers (only short-term) connected with visit abroad, in balance of payments it is part of *travel debits* (services).

**Table 6. Taxes and expenditure by seasonal and border workers (in PLN million).**

	2004	2005	2006	2007
Taxes	1849	2128	2402	2458
Expenditure by seasonal and border workers	4839	5578	6308	6450

## ESTIMATION METHOD

The new estimation method rests to a great extent on determining the number of Poles working abroad, period of their employment as well as the level of their compensation and their inclinations to transfer the money to Poland. Major data source for estimating the number of Poles working abroad were the CSO data on migration, data derived from BAEL<sup>3</sup> as well as data from those countries in which Poles have found employment. Remaining elements of the new estimation method have been derived, to a great extent, from the 2007 NBP survey carried out in United Kingdom and Ireland. The comprehensive survey covered in detail social and economic profile of migrants, their activeness on foreign labor market and money transfers to Poland.

Estimation process has been divided into two parts. In part one, three states of greatest significance have been selected: United Kingdom, Ireland and Germany as three most popular labor migration destinations. Separate estimation method has been developed for each and every of these countries. Part two included estimations for all other states in which Poles find employment.

**United Kingdom** – major source for estimations proved to be the 2007 NBP survey. Based on this survey one can determine the number of persons who would want to work in GB for more than a year (those persons in the Polish BoP statistics are deemed nonresidents) and persons who intend to work there for less than a year. Having this breakdown in mind, as well as number of the employed (based on WRS<sup>4</sup> statements) and salaries of Poles in United Kingdom it is possible to estimate compensation of employees and workers' remittances.

<sup>2</sup> Taxes paid by resident (long-term) workers are deemed bop transaction.

<sup>3</sup> BAEL – household survey made by Polish CSO

<sup>4</sup> WRS – Working Register Scheme

# NBP

**Ireland** - major source for estimations proved to be the 2007 NBP survey. Based on this survey one can determine the number of long-term (resident) and short-term (non-resident) workers. Having this breakdown in mind, as well as number of the employed (based on PPS<sup>5</sup> statements) and salaries of Poles in Ireland it is possible to estimate compensation of employees and workers' remittances.

**Germany** – In case of Germany estimation method has been significantly different from those applied for Ireland and United Kingdom. It is a result of limited accessibility of German labor market. Limited as the access is, this market is still very popular with Polish workers. Major source for estimations were data on number of job offers for Polish seasonal workers in Germany (data from Polish Ministry of Labour and Social Policy) as well as number of Poles registered in German social security system (resident employees).

**Other countries** – Estimations for other countries have been based on migration data published by the CSO as well as on BAEL data. Results of the aforementioned survey carried out in United Kingdom and Ireland had also exercised a significant influence.

## Net transfers

Net transfers are hardly a plain total of compensation of employees and workers' remittances as the latter include also money spent abroad i.e. taxes and accommodation (such as bed and board). In order to estimate the amount transferred to Poland by temporary workers one should deduct those two items from the compensation of employees. Money transferred by long-term employees are by definition equal to workers' remittances.

**Table 7. Calculation of funds transferred by Polish workers abroad (in PLN million).**

	2004	2005	2006	2007
Workers' remittances	4 074	5 911	9 139	11 776
Compensation of employees	13 110	15 127	17 130	17 506
Taxes	-1849	-2128	-2402	-2458
Expenditure by seasonal and border workers	-4839	-5578	-6308	-6450
Funds transferred to Poland	10 496	13 332	17 559	20 374

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<sup>5</sup> PPS – Personal Public Service