The economic benefits of remittances

A case study from Poland

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Remittances are flows of money between individuals living in different countries, most typically a foreign worker sending money back to his or her home country. In the last few years remittances have risen significantly throughout the world as a result of increased migration flows, as well as reduced sending costs. Remittance flows to developing countries now account for a large portion of external capital inflows—well ahead of official development assistance. In many smaller economies, large-scale remittance flows account for more than a quarter of GDP.

Macroeconomic Effects of Remittances in Poland. Remittances have risen significantly in Poland over the last twenty years, and now amount to a noticeable share of the balance of payments and the economy. At over US$8 billion in 2011, they placed Poland as the 17th largest recipient of remittances. Remittances grew from 0.5 to 1.5 percent of GDP in the period 1995-2011, with a peak of 2.5 percent of GDP in 2006-2007. The value and share of remittances in GDP increased considerably after the Polish accession to the EU and the opportunity for the Poles in most European labour markets. Remittances were also larger than EU transfers until 2008.

In this study we show, through the use of a macro-econometric model, that as a result of the remittances inflow and its effect on consumption and incomes, the GDP of Poland in 2011 was at least PLN 22 billion (US$7b) higher than it would have been in the absence of the transfers. Other intangibles, such as the contribution to financial sector deepening, are more difficult to quantify, but are clearly positive.

Effects of Remittances on Household Budgets in Poland. How important are remittances in the budgets of Polish families? Which families are the primary beneficiaries? Does the inflow of income from abroad reduce poverty and inequality, and to what extent? To address these questions, this study used data from the 2008 Household Budget Survey, which identifies all sources of foreign income to Polish individuals. The main results can be summarized as follows:

- Remittances involve a relatively small number of households in Poland, (2.5 per cent or about 330,000 households, amounting to over 1.2 million people). But because remittances are concentrated within a small number of households, they actually represent a sizeable portion of the incomes of their members (on average, 62 per cent of income for households receiving remittances).
- Recipients of remittances hail mostly from small towns and rural areas rather than large cities; they tend to live in areas located in the parts of the country which have experienced a large outflow of migration. In addition, they are often from large households (especially young families with children), and their educational levels reach basic vocational education or higher (rather than primary education).
- Because of their concentration and importance among recipients, remittances have a powerful effect with regard to the overall poverty rate, as they reduce it by nearly two percentage points. They also result in a slight decrease in income disparities.

In conclusion, in this study we show that remittances have increased GDP growth for Poland and, most importantly, have contributed to increased welfare for some of the least well-to-do segments of the Polish population. A lesson of the study is that, while in the short-run the current economic slow-down in Europe may result in reduced opportunities for Polish workers interested in employment abroad, it would be nevertheless important to keep the facilitation of remittances (costs, financial instruments, financial literacy) on the policy agenda in order to extend their contribution to the national economy in the years to come.

Remittances: a vital economic function

In countries such as Poland, where labour migration has become a major feature of socio-economic life, international remittances have assumed a new significance.

Made up of low-value, person-to-person payments, the aggregate value of these international remittances has escalated in recent years. On a global basis, it exceeds the value of official development assistance (and has done so for more than 15 years). And, for many emerging countries, it also exceeds the value of foreign direct investment, private debt flows and portfolio equity flows.

Given this scale, international remittances perform a valuable and often overlooked economic function for a migrant's home country:

- At the **macroeconomic level**, they contribute to GDP growth and consumption

- At the **household level**, they alleviate poverty and supplement incomes

Within this paper, we seek to quantify the actual impact. Our focus is Poland. But our broader conclusions should hold true for any country with a similar scale of labour migration.

Remittances – our definition

The term ‘remittance’ is used widely but somewhat imprecisely.

Within this document, we have adopted a **narrow definition** of the term, as set out by the United Nations Statistics Division.

> *The unit under consideration is the migrant (including also short-term migrant), independent of their status (e.g. employed or not, legal or illegal, etc.). The aim is to capture the net receivable of transactions, without quid pro quo, between the migrant and the related household in the home country, independently from the source of income (be it wages and salaries, social benefits or any other current transfer) and the use this money is put to in the home country (e.g. alimony, inheritance, lottery, etc.)* [1]

By using this narrow definition, we are better able to focus on the **economic impact** of migration **on the migrant’s home economy**.

[1] As explained in the 2005 *Issue Paper: Definition of Remittances and Relevant Bpm5 Flows,* Alessandra Alfieri, Ivo Havinga and Vetle Hvidsten

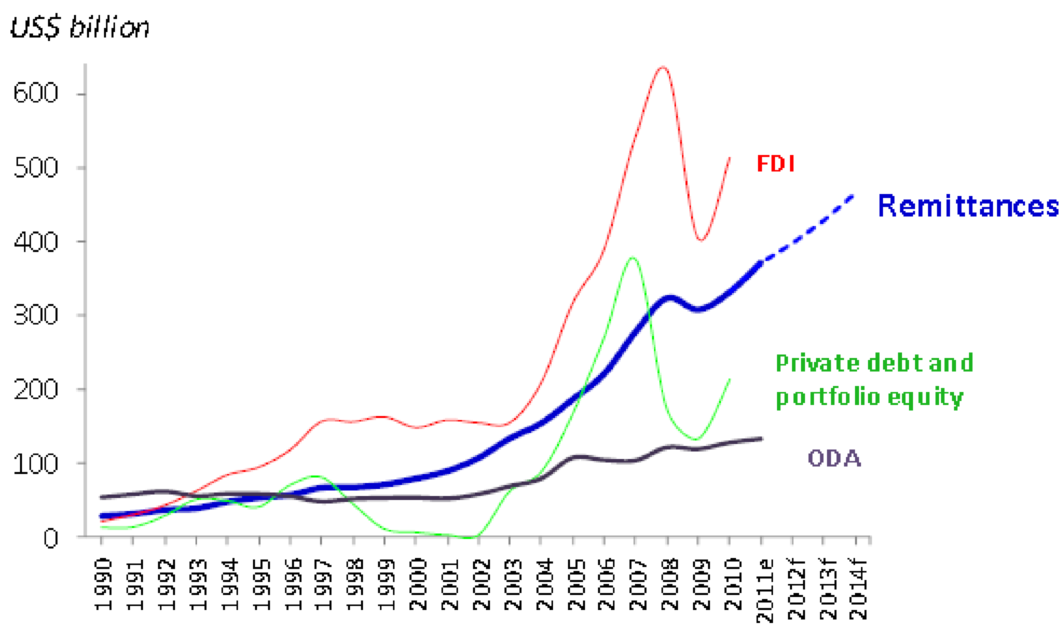
Remittances and the global economy

The value of international remittances has increased significantly in recent years.

They now account for a substantial proportion of resource flows towards most developing economies – so much so that they are generally regarded as the 'third pillar' of development (alongside foreign direct investment and overseas development assistance).

Even during the current global economic climate, the value of remittances continues to grow. Indeed, the World Bank reports that, in 2011, total remittances to developing countries amounted to some US$372 billion – representing an annual increase of 12 per cent (Fig. 1).

Figure 1: Remittances and other resource flows to developing countries, 1990-2014



Remittances (which, it should be stressed, are made up entirely of person-to-person payment flows) surpassed total Overseas Development Assistance as far back as 1997, and are now greater than private debt and portfolio equity flows to developing countries.

The substantial growth in remittances can be attributed to a variety of factors – including the acceleration of labour migration within several specific migration "corridors", and the progressive improvement in real wages paid to migrants in many parts of the world.

Remittances are, of course, voluntary money transfers paid between private individuals. As such the funds can then be used solely according to the wishes of the individuals involved.

Several studies involving a number of different countries have investigated the use of remittances by their recipients. The general consensus is that, by augmenting households incomes (often in disadvantaged situations), remittances can:

- Contribute to poverty reduction
- Represent an investment in human capital (such as education and health care)
- Foster the establishment of micro businesses (albeit in more limited circumstances)

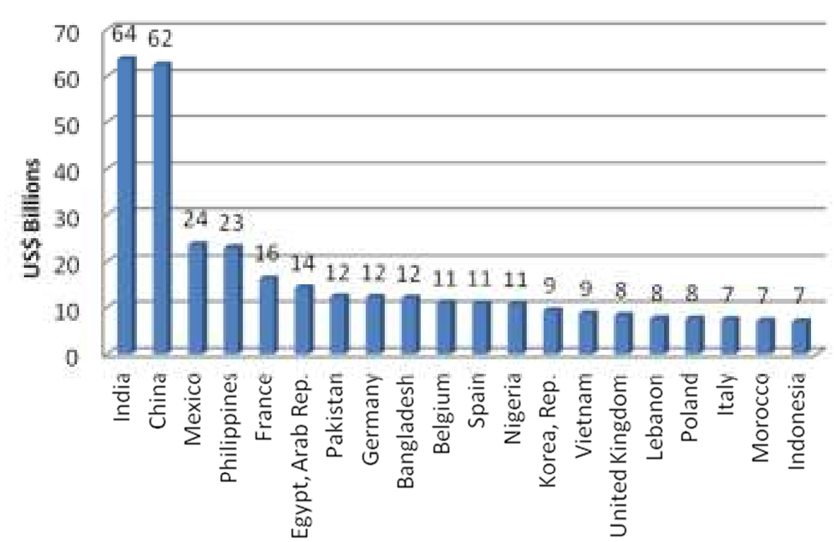
Investment in residential housing by migrants is one of the most widely-documented uses of remittances (and also in personal savings by migrants returning to their home country).

Until the crisis of 2008-2009, it had been thought that remittances were less prone to cyclical fluctuations than other flows of resources towards developing countries. This opinion was backed up by evidence that migrants from a shrinking economy may actually increase their remittances out of solidarity with family recipients – thereby helping their home country to cushion the true impact of the recession.

However, the unprecedented nature of the latest financial crisis did result in an unusual and temporary dip in overall remittance values during 2009. This was because the crisis simultaneously struck many sending and receiving countries. It also had a disproportionate impact on sectors such as construction and travel (which, of course, are traditional occupations for many migrants).

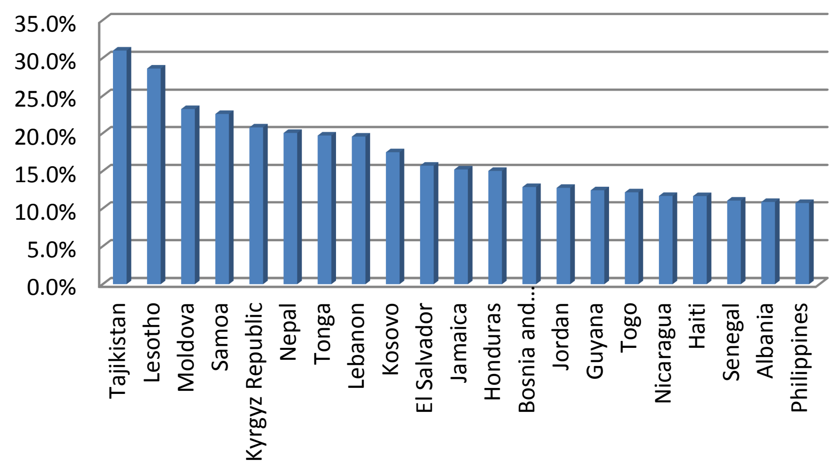
At the time, these dips in remittances are thought to have worsened the magnitude of the recession in certain countries. However, as indicated in Fig. 1, growth in global remittance values returned quickly – and flows are forecast to continue increasing for the foreseeable future.

Fig. 2: Top Remittance Recipients



Looking at the absolute scale of inward remittance flows (see Fig. 2), China and India emerge as the clear world leaders. Poland is also among the top 20 countries, just ahead of Italy.

Fig. 3 - Remittance Recipients, Percent of GDP



When one looks at these flows as a percentage of GDP (Fig. 3), the picture is very different. Under this measure, the top 20 countries can all be regarded as low-income developing countries, many of which can be thought of as “migration dependent”.

Remittances in Poland – the macroeconomic perspective

Over recent years, labour migration has become an important factor of Poland's socio-economic life, but understanding the true impact of the resulting remittances is a complex undertaking. Within this section of the paper, we consider the role they play in Poland's economy and, more particularly, the size and nature of consumer spending and the contribution towards economic growth.

Types of transfers and data sources

Data on remittances to Poland have only been compiled and reported by Poland's Central Bank (the National Bank of Poland, NBP) since 2001. This data comprises two distinct categories of income which is accrued abroad by migrant workers and is reported as two separate current account items under Poland's Balance of Payments:

- **Current incomes**
  For migrant workers who have been employed overseas for less than one year – their total compensation is reported as current incomes.

- **Current transfers**
  For migrant workers who have been employed overseas for more than one year – the transfers (or remittances) they make to Poland (representing a portion of their compensation) are considered as private value transfers and are reported as current transfers.

  This category includes the incomes of individuals whose major economic interests remain focused in their country of employment.

The Central Bank bases its reports on the payment flows that are officially documented by the banking system together with its own estimates. In making its estimates (for example, on the number of Poles working overseas, their respective employment periods, income levels and propensity to send monies back home) the Central Bank takes the following factors into account:

- Emigration data reported by the Central Statistical Office (GUS)
- The so called BAEL[2] survey results on projected emigration flows
- Official (social insurance) data from those countries where Polish migrant workers are employed
- The findings from a one-off survey, conducted by the Central Bank in 2007, on the population of Poles working in Great Britain and Ireland
- Reports by the Ministry of Labour and Social Policy (MPiPS) on the availability of jobs offered to Polish workers in Germany
- The official EUROSTAT figures

[2] BAEL – quarterly survey on the Population's Economic Activity Levels *(Kwartalne Badanie Aktywności Ekonomicznej Ludności)*

Separate estimates are made for Great Britain, Ireland and Germany (as the most important migration destinations for Poles), whereas all other countries are considered together under a single category.

All of the remittances made by the longer-term migrants are reported as actual amounts sent to Poland (that is, after taxes and the living expenses they incur overseas). By contrast, the entire gross compensation received by the shorter-term migrants is reported.

All income taxes collected by foreign governments are shown as expenditures, but not separated from other items, thus making it impossible to assess their magnitude. Remittances are also subject to other statistical anomalies. For example, compensation received by short-term or seasonal cross-border workers tends to be measured in full, even though some of these monies will be spent overseas to cover their living costs. In the balance of payments such expenditures are presented as expenses related to foreign trips. But, unlike taxes, they are impossible to separate from other foreign trip costs. As a consequence, inward foreign transfers to Poland may be slightly over-reported.

As of 2004, the Central Bank has reported income taxes on compensation paid to short-term workers. It has also reported their spending overseas. This reporting provides a basis for extrapolation to such values in previous years (that is, from 1995- 2003).

Estimates for foreign money transfers to various recipient countries are also reported by the World Bank[3]. For Poland, these World Bank estimates (shown as contributions to GDP) were reported for the period of 1994-2010. In fact, the values reported for concurrent periods by both the World Bank and the Central Bank of Poland (that is, from 2000- 2010) are relatively convergent. In order to extend the series presented by the Central Bank right back to 1994, we have therefore made use of the World Bank data. We have also reported transfers as a percentage of GDP drawing on GDP reports developed by Poland’s Statistical Office (GUS).

Quantifying the value of remittances

As of 1995, the value of overseas money transfers to Poland stood at some PLN 1.7 billion. By 2007, the figure had risen strongly and steadily to exceed PLN 28.8 billion. Then, by 2011, it had dropped back down to around PLN 22.5 billion.

Taking a historical perspective, the changes can probably be ascribed to two main events:

- Poland’s accession to the European Union (EU) in 2004 coincided with a near-doubling of the value of remittances in a single year (from less than PLN 9 billion in 2003 to almost PLN 17 billion in 2004), followed by continued increases.

[3] http://search.worldbank.org/quickview?name=Workers%27+%3Cem%3Eremittances%3C%2Fem%3E+and+compensation+of+employees%2C+received+%28%25+of+GDP%29&id=BX.TRF.PWKR.DT.GD.ZS&type=Indicators&cube_no=2&qterm=remittances

- The global economic crisis of 2008/2009 resulted—in Poland as well as in the rest of the World—in a sharp decrease in remittance flows (from the peak of almost PLN 29 billion in 2007 to less than PLN 25 billion in 2008), followed by a more gradual downward trend. One can safely surmise that a deterioration in working conditions across the EU member states was the main determinant of the reduction in the income generation capacity of Poles overseas.

Measured as a proportion of GDP, transfers stood at just 0.5 per cent in 1995. They then grew five-fold to reach a peak of 2.5 per cent of GDP in 2006. The subsequent shrinking of remittances, at a time of rapid GDP growth within Poland, then saw the figure fall right back to 1.5 per cent in 2011.

Figure 4. Foreign money transfers to Poland as reported in the Balance of Payments (1995-2011)

	Balance of Payments				
	Total transfers				
				Remittances of compensations by long term workers Real/(*actual) flows*	Compensations of short term workers Total (pre tax) gross values
	PLN million	GDP %	disposable income %	PLN million	PLN million
1995	1 686	0,5	0,7	647	1 039
1996	2 112	0,5	0,7	811	1 301
1997	2 577	0,5	0,7	989	1 588
1998	3 605	0,6	0,8	1 384	2 222
1999	3 328	0,5	0,7	1 278	2 051
2000	6 529	0,9	1,2	2 506	4 023
2001	6 408	0,8	1,1	2 436	3 972
2002	7 015	0,9	1,2	2 565	4 450
2003	8 881	1,1	1,5	2 882	5 999
2004	17 184	1,9	2,7	4 074	13 110
2005	21 037	2,1	3,2	5 911	15 126
2006	26 269	2,5	3,8	9 140	17 129
2007	28 821	2,4	3,9	11 696	17 125
2008	24 752	1,9	3,1	11 213	13 539
2009	25 051	1,9	2,9	11 393	13 658
2010	22 906	1,6	2,5	10 887	12 019
2011	22 517	1,5	2,4	10 889	11 628

Sources:

1) *Total transfers, remittances of compensations of workers between 2000 and 2011- The Central Bank's (NBP)Balance of Payments for 2000-2011;*
2) *Total transfers as a percentage of GDP and disposable income in 2000 to 2011 – proprietary computations based on reports by the Central Statistical Office (GUS) (national accounts);*
3) *Total transfers as a percentage of GDP between 1995 and 1999 – reported by the World Bank;*
4) *Total transfers between 1995 and 1999 – proprietary computations based on GDP reports by the World Bank and GUS;*
5) *Remittances of workers' compensation between 1995-1999 – proprietary extrapolations inferred from values reported for 2000 to 2011.*

It is helpful to harmonise the two categories of pay that are received by workers overseas and then transferred to Poland. To do so, we made use of the Central Bank's detailed estimates of the income tax paid by short-term workers on the wages they received and the expenses they incurred overseas. Given that the share of taxes and expenses remained relatively stable from 2004- 2011, we assumed that similar proportions would be correct for 1995- 2003. The short-term workers' earnings (as reported in the Balance of Payments) were then reduced by the estimated tax and expenditure amounts, thus revealing the real/actual values of transfers.

Having applied this methodology, the resulting total of the real/actual inflows turned out to be as much as a third lower than the values reported in the Balance of Payments. In 1995, the figure stood at PLN 1.2 billion (representing 0.3 per cent of GDP), reaching a height of PLN 20.1 billion in 2007 (1.7 per cent of GDP), before falling down to PLN 17.0 billion in 2011 (1.1 % of GDP).

During the boom years, it is estimated that these real inflows accounted for some 2.7 per cent of disposable household incomes, subsequently falling to around 1.8 per cent in 2011.

Figure 5. Foreign transfer inflows to Poland – real/actual flows (1995-2011)

	ESTIMATED REAL/ACTUAL VALUEs TRANSFERRED							
	Total transfers							
				Remittances of compensation by long term workers *real/actual flows*	Compensations of short term workers *real/actual flows*	Compensations of short term workers pre tax/ gross values	Income tax on compensations payable by short term workers	Expenditure by short term workers while overseas
	PLN million	GDP %	disposable income % o	PLN million	PLN million	PLN million	PLN million	PLN million
1995	1 156	0,3	0,5	647	509	1 039	-147	-383
1996	1 448	0,3	0,5	811	638	1 301	-184	-480
1997	1 767	0,3	0,5	989	778	1 588	-224	-586
1998	2 472	0,4	0,6	1 384	1 088	2 222	-313	-820
1999	2 282	0,3	0,5	1 278	1 005	2 051	-289	-757
2000	4 477	0,6	0,8	2 506	1 971	4 023	-567	-1485
2001	4 382	0,6	0,8	2 436	1 946	3 972	-560	-1466
2002	4 745	0,6	0,8	2 565	2 180	4 450	-628	-1643
2003	5 821	0,7	1,0	2 882	2 939	5 999	-846	-2214
2004	10 496	1,1	1,7	4 074	6 422	13 110	-1849	-4839
2005	13 332	1,4	2,0	5 911	7 421	15 126	-2128	-5578
2006	17 560	1,7	2,5	9 140	8 420	17 129	-2402	-6308
2007	20 107	1,7	2,7	11 696	8 411	17 125	-2405	-6310
2008	17 973	1,4	2,2	11 213	6 760	13 539	-1956	-4823
2009	18 397	1,4	2,1	11 393	7 004	13 658	-1991	-4663
2010	17 006	1,2	1,9	10 887	6 119	12 019	-1791	-4109
2011	17 026	1,1	1,8	10 889	6 137	11 628	-1708	-3784

Sources:

1) *Total transfers, remittances of workers' compensation between 2000 and 2011- The Central Bank's (NBP) Balance of Payments for 2000-2011;*
2) *Total transfers as a per centage of GDP and disposable income in 2000 to 2011 – proprietary computations based on reports by the Central Statistical Office (GUS) (national accounts);*
3) *Total transfers as a per centage of GDP between 1995 and 1999 – reported by the World Bank;*
4) *Total transfers between 1995 and 1999 – proprietary computations based on GDP reports by the World Bank and GUS;*

5) *Remittances of workers' compensation between 1995-1999 – proprietary extrapolations inferred from values reported for 2000 to 2011.*
6) *Taxes on compensation paid by short-term workers while overseas, 2004-2011*
7) *Taxes on compensation paid by short-term workers while overseas, 1995-2003; proprietary extrapolations inferred from values recorded for 2004 - 2011*

From these figures, it becomes evident that the value of these private payments significantly outweighed considerable value of funds committed to Poland by the EU under its various structural and cohesion programmes.

Indeed, during 2005, the value of private remittances was five times greater that the inflow of EU funds. And, during the subsequent few years, they remained considerably higher.

Since the financial crisis, the balance has shifted in the opposite direction – to the extent that, by 2011, the inflows of EU funds were two times higher than the value of private transfers.

Figure 6. Inward foreign transfers to Poland – real/actual flows vs. EU resources committed under the structural and cohesion programmes (2005-2011)

	Inflows of EU funds	Transfers originated abroad *Real/actual flows*	
	PLN million	PLN million	EU funds %
2005	2 419	13 332	551
2006	13 131	17 560	134
2007	14 815	20 107	136
2008	12 532	17 973	143
2009	19 265	18 397	95
2010	33 448	17 006	51
2011	42 786	17 026	40

Sources:

1) *EU funds: proprietary computations based on monthly reports by the Ministry for Regional Development on the absorption of funds;*
1) *Transfers from overseas presented as actual flows – see sources at the bottom of Figure 5.*

Identifying the source of remittances

In terms of their source, remittances to Poland are largely concentrated within a few key country "corridors" – with transfers from just six countries accounting for 80 per cent of the total inflows.

In the years leading up to the financial crisis, Great Britain was accounting for an ever-growing proportion of the total inflows (reaching, in real terms, 25 per cent of total values by 2007). This, of course, followed Poland's accession to the EU and reflects the growing importance of remittances sent home by a sizable cadre of long-term migrant workers.

Likewise, for Ireland, growth in the value of transfers (reaching 23 per cent of the total by 2007) was driven by remittances payments from long-term workers who benefited from the then Irish economic boom, and staying for more than a year.

By contrast, the diminishing stock of Polish seasonal labour in Germany resulted in a 50 per cent fall in real inflows originated from that country (from 40 per cent of the total in 2004 to 19 per cent in 2007). Similarly, a 50 per cent decline was recorded for transfers from USA (to seven per cent in 2007), albeit from a much lower level. In both cases, these falls were largely attributable to a shrinking volume of transfers from short-term workers.

Meanwhile the monies inflowing from Italy and the Netherlands were relatively smaller and also more stable (accounting for five per cent and four per cent respectively of the total inflows during 2007).

Figure 7. Foreign transfers by source country (2004-2007, %)

	2004	**2005**	**2006**	**2007**
Global	100	100	100	100
Great Britain	16	20	23	25
Ireland	8	13	19	23
Germany	40	34	24	19
USA	14	9	9	7
Italy	6	6	5	5
Netherlands	2	3	3	4
Others	14	16	18	17

Source: CASE computations based on Central Bank (NBP) reports (2008)

Quantifying the contribution to economic growth

The analytical findings presented in the previous pages could easily give the impression that, from a macroeconomic perspective, the impact of remittances has been quite modest in Poland – equating, at the very most, to around 2.5 per cent of GDP.

It could also be assumed that, since the onset of the global economic crisis, this impact has been steadily waning.

In fact we take a different view. We believe that remittances do have a significant impact on the Polish economy. And, to quantify this impact, we have run a series of simulations using a macro-economic model know as CASE –Advisors (CASE-Doradcy).

This involved the rigorous modelling of a "POLAND without REMITTANCES" scenario over a set time-span.

How we modelled the impact of remittances on consumption and GDP

Under the CASE-Advisors model, consumption is represented as a function of disposable income, savings rate and various demographic factors (such as the proportion of citizens aged 60 years and above in the total population).

When arriving at its official estimates for the income levels of the Polish population, the Central Statistical Office (GUS) takes account of a wide range of variables, such as employee compensation, income gained through self-employment, social benefits and a variety of transfers. And, from our understanding, all private remittances have already been accounted for in the officially-published GUS income estimates.

Looking specifically at disposable income, this is defined as the total of employee compensation, social benefits and income from other sources. To simulate our "NO TRANSFERS" scenario, we therefore isolated and then eliminated the value of overseas transfers from the so-called "income from other sources". From there, we were able to infer all the variables involved, in order to understand the true impact of remittances on personal consumption and GDP during the years from 1995- 2011.

It should be emphasised that the picture is complex.

For example, remittances contribute to disposable income which, in turn, affects household consumption levels. Increased consumption levels can then contribute to GDP, but can also trigger imports (which would actually serve to reduce GDP). As a further consequence, both employment levels and productivity could be affected which, when combined with price rises, could have an impact on inflation. In time, any impact on headcount would affect the payroll, and become an added component of disposable income. Any growth in consumption rates would also affect the way in which businesses assess the prospects for continued growth, which would then have an impact on their investment behaviour.

The impact on consumption and GDP growth

Between 1995 and 2011 the Polish economy grew at a moderately high rate of 4.4 per cent per annum, which corresponds to an aggregate growth in GDP of 99 per cent (in constant prices).

This rate of growth was driven largely by domestic demand and, in particular, by household consumption – which saw a yearly increase of 4.2 per cent (at constant prices) over our 17-year time span.

During the same period:

- Growth in investment was some 50 per cent higher than household consumption (6.5 per cent annually in constant prices). But, due to its smaller proportion in GDP (21 per cent on average for investment, compared to 62 per cent for household consumption), the contribution to economic growth was some 50 per cent lower (1.3 percentage points compared to 2.6 percentage points).

- Government spending grew at an annual average of 3.2 per cent, resulting in an average 0.6 percentage point contribution to GDP growth.

- Although quite volatile, the balance of trade averaged out at -2.5 per cent of GDP. This equated to a negative average contribution to GDP growth of -0.4 percentage points.

Interestingly, disposable income, when measured as a percentage of GDP, fell from 72 per cent in 1995 to 62 per cent in 2011. Despite this marked decrease, household consumption accounted for a relatively stable proportion of GDP (from slightly below 60 per cent in 1995, to slightly above 60 per cent in 2011, with a temporary rise to 66 per cent during 2002).

The mismatch between growth in disposable income and growth in consumption is indicative of a gradual decrease in the household savings rate (which fell from 17 per cent in 1995 to two per cent in 2011). It is also correlated with rising levels of indebtedness (expressed as a negative savings rate). As a consequence, household consumption remained the most stable component of economic growth, even during times when the wider economy slowed down.

Against this background, it was interesting to model our “NO TRANSFER” scenario. We found that, over our 17-year time span, the impact of overseas remittances was as follows:

- **Total household income was higher**
  Without remittances, household income would have been reduced by PLN 177 billion. The value of the remittances themselves equated to PLN 160 billion. The remaining PLN 17 billion would have been the result of slightly lower payroll and social benefits values, partly compensated for by diminishing tax inflows (payable on lower taxable incomes) and a small increase in the incomes of the self employed (due to a slight growth in the number of self employed individuals against the backdrop of falling employment levels).

- **Average disposable income grew more quickly**
  From 1995- 2011, disposable income grew by 2.9 per cent each year. If it had not been for the remittances, the corresponding figure would have been 2.7 per cent (that is, some seven per cent lower)

- **Average household consumption was higher**
  From 1995- 2011, household consumption grew by 4.2 per cent each year. In our "NO TRANSFER" scenario, this would have been held back at 4.1 per cent

- **Annual GDP growth was accelerated**
  As we have said, average GDP growth over the 17-year period was 4.4 per cent. Without the inflow of remittances, the growth rate would have been 4.3 per cent.

Looking, in general, at the 1995- 2011 time span, we can surmise that the inflow of remittances has had a positive, although relatively modest, impact on the overall health of Poland's economy. But, if we look at the big swings in remittance values during certain years, we can detect a much more significant impact.

During the year 2000, for example, the value of remittances saw an 80 per cent increase (in real terms), which directly triggered an increase in consumption growth from 2.7 per cent to 3.0 per cent. Similarly, in 2004, when remittance values soared by 90 per cent, the growth in consumption was lifted from 4.0 per cent to 4.7 per cent. By complete contrast, in 2008, when remittances slumped by 20 per cent, the growth in consumption fell from 6.2 per cent to 5.7 per cent.

It is also worth considering that our "netted off" transfer inflows would have impacted consumption both directly and indirectly (that is, via total disposable incomes and savings rates). This explains why growing (or falling) remittance volumes did not affect consumption levels proportionately or consistently, year-in-year-out.

Figure 8. The simulation findings:

a comparison between historical data and our "NO TRANSFERS " scenario, 1995-2011

	Disposable incomes			**Household consumption**		**GDP**	
	Historical data		"NO TRANSFERS" scenario	Historical data	"NO TRANSFERS" scenario	Historical data	"NO TRANSFERS" scenario
		Including overseas transfers					
	Real terms growth (%)			Real terms growth (%)		Real terms growth (%)	
1995							
1996	4,7	4,5	4,7	8,8	8,8	6,2	6,2
1997	7,1	6,2	6,6	7,1	6,6	7,1	6,8
1998	4,6	25,1	4,5	5,0	4,9	5,0	4,9
1999	2,1	-13,9	2,2	5,4	5,5	4,5	4,6
2000	1,4	78,2	1,0	3,0	2,7	4,3	4,1
2001	2,1	-7,0	2,2	2,3	2,4	1,2	1,2
2002	0,4	7,4	0,4	3,4	3,4	1,4	1,4
2003	0,8	25,5	0,6	2,1	1,9	3,9	3,8
2004	2,9	87,0	2,2	4,7	4,0	5,3	5,0
2005	0,6	19,9	0,1	2,1	1,7	3,6	3,4
2006	4,2	23,6	3,6	5,0	4,5	6,2	5,9
2007	5,1	7,1	4,9	4,9	4,7	6,8	6,7
2008	3,8	-17,6	4,3	5,7	6,2	5,1	5,4
2009	3,5	-2,2	3,7	2,1	2,2	1,6	1,7
2010	1,9	-10,9	2,2	3,2	3,5	3,9	4,0
2011	0,5	-5,7	0,6	3,1	3,2	4,3	4,3
1995-2011	56,8	436,2	53,8	94,0	90,4	98,9	96,9
Annual average	2,9	14,2	2,7	4,2	4,1	4,4	4,3

Source: proprietary computations based on the CASE-Advisors macroeconomic model

The role of Western Union remittances

Between 1994 and 2011, it is believed that the largest proportion of remittances was sent via Western Union – totalling some USD 5 billion in value, which (based on an average annual PLN/USD exchange rate) is equivalent to PLN 15.5 billion.

Over our 16-year time span, this figure equates to around 10 per cent of the total value of foreign transfers to Poland (reported as real inflows). On a year-by-year basis, however, Western Union's share of total transfers was quite volatile.

From 1995 through to 2003, the Western Union share grew gradually and consistently from 1.5 per cent to 17.9 per cent. Following Poland's accession to the European Union, other forms of remittance (including so-called 'pocket transfers' by individuals) immediately took a sizeable share, and continued to grow at an even faster pace. Consequently, the Western Union share of total remittances had fallen back to 8.1 per cent by 2008 – before climbing back to 10.6 per cent by 2011.

Figure 9. Transfers via Western Union compared to total foreign transfer inflows, 1994-2011

	Transfers via Western Union			**Average annual FX rate**
	USD	PLN, million	% of total	PLN/USD
1994	3 135 505	7,1		2,27
1995	7 385 442	17,9	1,5	2,42
1996	14 767 408	39,8	2,7	2,69
1997	21 468 371	70,4	4,0	3,28
1998	30 091 953	105,0	4,2	3,49
1999	43 795 447	173,6	7,6	3,96
2000	68 714 144	298,3	6,7	4,34
2001	101 203 536	414,2	9,5	4,09
2002	151 371 322	617,1	13,0	4,08
2003	267 843 602	1 041,2	17,9	3,89
2004	346 290 308	1 263,0	12,0	3,65
2005	401 407 597	1 297,9	9,7	3,23
2006	514 757 206	1 596,5	9,1	3,10
2007	628 026 569	1 735,6	8,6	2,76
2008	606 239 586	1 458,9	8,1	2,41
2009	557 781 356	1 737,0	9,4	3,11
2010	586 461 787	1 766,9	10,4	3,01
2011	611 686 052	1 811,6	10,6	2,96
1995-2011		15 444,8	9,6	

Source: proprietary computations based on data provided by Western Union

Remittances play a substantially important role

Overall, we can clearly see that inward remittances from short-term and long-term migrant workers have been substantially important to the Polish economy.

By modelling a “NO TRANSFERS” scenario we can see that, thanks to these remittances, GDP growth has been accelerated, average household income has been higher, and average household income has grown more quickly than would otherwise have been the case.

Of course, across Poland’s large and sophisticated economy, it is important to keep the picture in perspective. Since they equate to no more than 1.7 per cent of GDP, the macroeconomic impact of remittances has not been as spectacular as in some other countries (in which a larger proportion of the population choose to work overseas).

It is, however, interesting to narrow our focus – and to consider the role that remittances have played within the particular regions and the type of households from which the highest proportions of migrant workers have been drawn.

This is what we address in the final section of the paper.

Remittances in Poland – the impact on individual households

For several years, Poland's Central Statistical Office (GUS) has been researching typical household budgets through a periodic survey of 30,000 households.

These surveys provide detailed findings on income, expenditure and living conditions, plus the socio-demographic characteristics of all household members, their employment and the primary sources of income. In 2008, GUS took the opportunity to ask more specific questions in order to identify, for the first time, the size and the significance of income from overseas remittances.

We used the findings as the basis for our statistical analysis. And we sought to get some authoritative answers to a range of fundamental questions, such as:

- How important are remittances to individual Polish households?
- What types of household are the main beneficiaries of remittances?
- To what extent, if any, have remittances contributed to the alleviation of poverty?
- What role, if any, have remittances played in reducing income disparities?

All of our source material is drawn from the 2008 household budget survey (it would, of course, have been preferable to use more recent data, but because remittance values have remained relatively constant since 2008, the findings should still be relevant). In analysing the raw data, we have used the type of indicators that are most commonly applied to research on living standards.

Identifying the sources of overseas income

In the GUS annual household survey, detailed questions were asked about the scale and the nature of income from overseas. This is classified across thirteen separate categories of income (such as income from family members generated through regular or ad hoc employment, income from self-employment, income from the sale of goods or property and so on).

Although it is not possible to say exactly how this income has been transferred to Poland (through formal remittances, for example, or directly from the migrant workers, or through some other means), it is clear that all of the money has come from overseas.

In our analysis, we have taken the 13 categories and, for ease of reference, reduced them down to three main categories:

1. Income from the employment and self-employment of household members
2. Income from the social benefits of household members
3. Income from non-household members (such as maintenance payments and other donations)

Income from property or other such sources is not reported separately, but is included in the grand total of all income.

It is perhaps worth pointing out that, defined in such a way, the total value of overseas incomes is not totally consistent with the value of the transfers as reported in the national accounts. However, it seems appropriate to consider all overseas income and the impact on living standards, irrespective of whether it has all been captured within the macroeconomic statistics.

The level of overseas income among individual families

The GUS survey shows that income generated overseas is received by around 2.5 per cent of Polish households, which equates to some 330,000 households in total. Given that these households will typically consist of several people, the actual number of beneficiaries goes up to 3.2 per cent of the population – or 1.2 million individuals.

This figure may not seem overwhelmingly high, particularly given the common perception of Poland as a source of high numbers of migrant workers. However, the figure is broadly consistent with official estimates of the number of Polish nationals working overseas (some of whom maintain no economic ties with their families back home).

Those households receiving funds from overseas, on average, receive some PLN 635.00 per head per month. Looked at in context, the figure is extremely high. In fact it accounts, on average, for around 62 per cent of total household income. In other words, it supplements “domestic income” by 160 per cent.

In aggregate, the total value of overseas income reported within the GUS household budget survey comes to a grand total of PLN 9.1 billion to 9.4 billion – representing just over 0.7 per cent of Poland’s GDP. When considering the economic impact among individual households, it is worth remembering that the figure is broadly comparable to Poland’s total Labour Fund (which reached PLN 11.2 billion in 2009), or to the value of the country’s Family Allowances (which exceeds PLN 8.1 billion per annum).

In terms of categories of income, by far the largest proportion comes from employment and self-employment (accounting for 87 per cent of the total), followed by transfers from other households (at more than eight per cent). By comparison, other sources of income are insignificant.

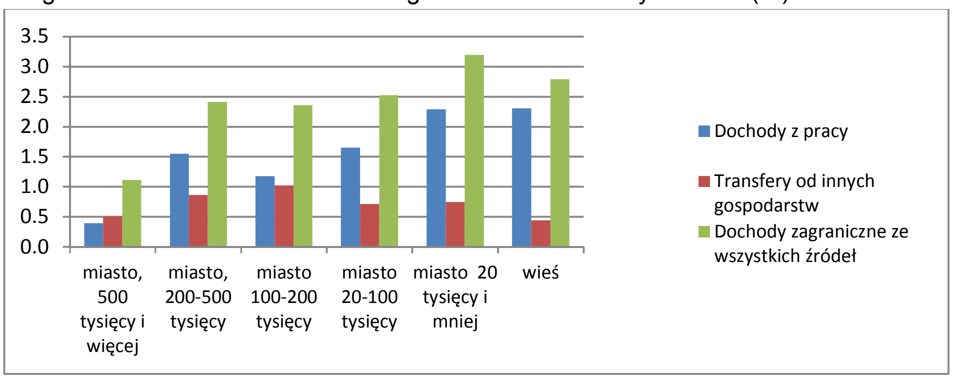
Who are the main beneficiaries of remittances?

As indicated in the various figures below, the main characteristics of remittance recipients can be summarised as follows:

1. **Recipients are most likely to live in small towns or rural areas, rather than in larger metropolitan areas.**
   In larger urban centres (those with more than 500,000 inhabitants) an average of just 1.1 per cent of households receive remittances. This compares to 3.1 per cent of households in towns of up to 20,000 inhabitants (that is, almost three times the share), and 2.8 per cent of households in rural areas)[4].

   Recipients of transfers from non-household members tend to be more highly concentrated in medium-sized towns (between 100,000-200,000 inhabitants) – one per cent of households receive this type of transfer compared to 0.6 per cent of the population as a whole.

Figure 10. Households receiving overseas income by location (%)



Source: The 2008 Household Budget Survey 2008 and proprietary computations

							- Income from employment - Transfers from other households - Total overseas income
	City, population 500 thousand +	City, population 200-500 thousand	City, population 100-200 thousand	Town Population 20-100 thousand	Town, population 20thousand or less	Rural areas	

2. **As one would expect, recipients are most likely to live in those regions which account for the largest numbers of migrant workers**

   Perhaps unsurprisingly, those households that are most likely to receive income from overseas tend to be located in these same regions. The provinces (or vojvodships) which have been the source of the greatest numbers of migrant workers include: Podkarpackie, Świętokrzyskie, Podlaskie, Lubelskie, Małopolskie and Opolskie (given its particular ethnic structure[5]).

[4] It should be noted that these shares have not been significantly skewed by the relative sizes of the populations. On aggregate, the populations of smaller towns and rural areas attract as much as 2.3 per cent of all inflowing incomes, whereas the larger metropolitan areas attract as little as 0.4 per cent

[5] Ranking of regions by intensity of migration processes – *cit*. M. Okólski and I. Topińska (2011), "Social impact of emigration and rural-urban migration in Central and Eastern Europe. National Report: Poland; Project Paper VC/2010/0026 (unpublished)

The Opolskie region is the clear leader. Here, as many as 6.2 per cent of all the households receive remittances. Second comes the Pomorski region (4.4 per cent of households). And third is the Podkarpackie region (4.2 per cent of households).

Further down the list come Poland's western border areas, such as the Lubuskie and Zachodnio-Pomorskie regions. These may not generally be regarded as prime sources of emigration. However, their geographic location, close as it is to the national border, provides relatively easy access to overseas incomes.

By contrast, the Podlaskie region (which may be regarded as a major source of migrant workers) is not ranked among the top beneficiary regions (1.86 per cent of households). Meanwhile, the affluent parts of Central Poland (such as the Mazowieckie, Wielkopolskie, and Łódzkie regions) all appear towards the bottom of the listing.

Figure 11. Percentage of households receiving overseas incomes by region

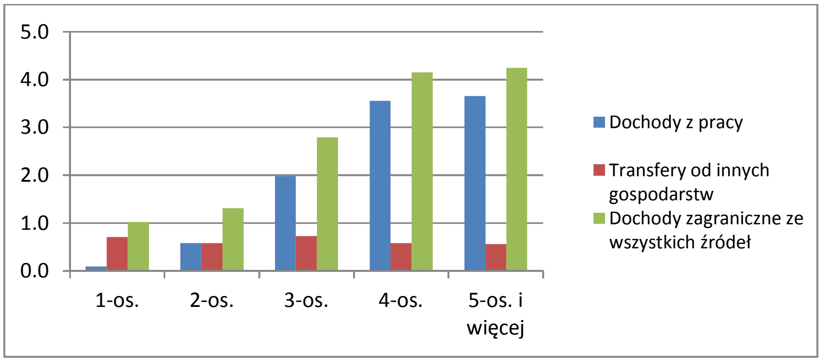
3. **Recipients tend to be larger households (predominantly working-age families with children), as opposed to smaller households (as populated by older people and single individuals).**

Demographic characteristics of households receiving overseas income are worthy of consideration. In particular, the size of the household and the presence of children within it are important factors. And, generally speaking, the larger the household, the more likely it will be to receive overseas income.

Some 4.2 per cent of four-five member households receive overseas income. Meanwhile, the corresponding figure for single individuals and childless couples stands as low as 1.0 per cent to 1.1 per cent.

Interestingly, more than three per cent of single parents receive remittances from non-household members but a far lower proportion receive compensation for overseas employment (which, among the population as a whole, is the main source of overseas income). A possible explanation could be that one of the parents has resided overseas for so long that they are no longer considered to be a household member.

Figure 12. Access to overseas income by size of household (%)



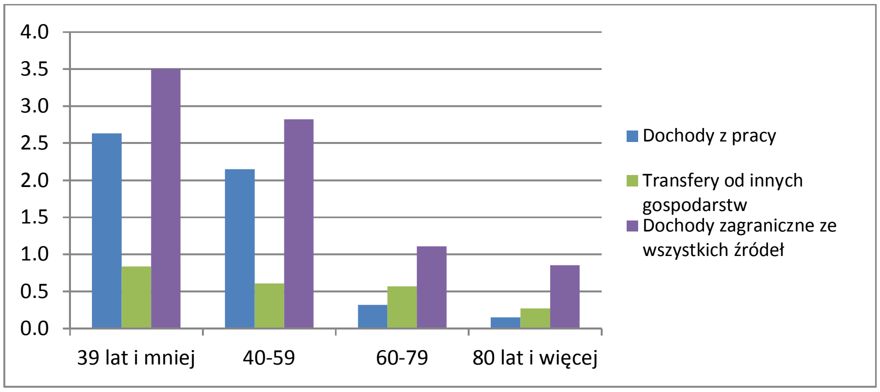
							- Income from employment - Transfers from other households - Total overseas income
	Number of Members 1	Number of Members 2	Number of Members 3	Number of Members 4	Number of Members 5 +		

Source: The 2008 Household Budget Survey and proprietary computations

Another interesting – and linked – demographic factor is the age of family members within a household. The GUS household budget survey reveals that it is younger families who are the most likely to receive overseas income. For families in which the head of the household is less than 40 years, the proportion in receipt of overseas income stands at 3.5 per cent. This figure progressively reduces through the age groups, and stands at around 1.0 per cent for those in which the head of the household is beyond retirement age.

The same pattern is generally repeated for all categories of overseas income (for example, for remittances from non-household members). This could suggest that it is uncommon for Polish migrant workers to be supporting elderly parents or relatives.

Figure 13. Households with access to overseas incomes by age of the householder/family head (%)



					- Income from employment - Transfers from other households - Total overseas income
	39 and under	40-50	60-70	80 +	

Source: The 2008 Household Budget Survey and proprietary computations

4. **Household members tend to be educated to lower-secondary standards or to have vocational qualifications, as opposed to secondary or tertiary-level qualifications**

   There is also a marked correlation between a beneficiary's education level and the receipt of overseas income. The vast majority of beneficiaries are educated to lower-secondary level or have a vocational qualification (3.5 per cent of such households receive overseas income).

   This figure is commensurate with the high levels of emigration among semi-skilled Polish workers and craftsmen, who typically take up overseas jobs in the construction sector or in related areas of work (such as mechanical servicing and repairs).

The role played in reducing poverty and alleviating income disparities

Intuitively, one can reach the conclusion that income from overseas should play a role in reducing poverty and alleviating income disparity. But, if there truly is such an impact, what is its true extent?

To answer this question, it is useful to compare the financial standing and behaviour of two distinct populations – namely, those households that do receive overseas income, and those that exist on domestic means alone.

The GUS household budget survey suggests that, in terms of disposable income, there is hardly any difference between the two types of household: those who receive overseas income have a monthly disposable income of PLN 1,056, whereas those who do not have PLN 1,045.

However, the picture changes when we look at the specific income components of the two respective groups. This reveals that those households with access to funds from overseas derive three quarters of their income from employment and as little as ten per cent from social benefits (such as social insurance payments, disability payments and pensions). By contrast, those households with no access to funds from overseas derive one quarter of their income from social benefits, and as little as 60 per cent from employment. However, this income structure reflects the fact that those households with overseas income tend to be younger and more active in the labour market.

In terms of average expenditure, significant differences also become apparent. Those households with overseas income have markedly lower levels of monthly expenditure. This is true on a per capita basis (PLN 815 and PLN 907 respectively) and also an equivalent spending basis (PLN 1,360 and PLN 1,391). Once again, this may reflect the lower age groups of these families. It may also reflect a higher propensity to save.

Looking at respective poverty rates, the GUS survey also reveals an interesting picture. We can ascertain this rate by analysing the equivalent levels of spending of each group, and then setting the poverty line at 50 per cent of average spending (that is, PLN 706 per month). Based on this calculation, the respective poverty rates stands at 17.1 per cent for households with no overseas income, and 16.2 per cent for families that do have access to such income.

This overall, aggregated calculation gives us the first indication that remittances do help to reduce poverty and to alleviate income disparities. By going down to another level of analysis, and considering the impact among different income groups (by investigating so-called quintile groups and Gini coefficients), we can get a clearer understanding of its true extent and nature.

- For the poorest households (the first quintile group comprising the 20 per cent of individuals with lowest equivalent spending), the receipt of overseas income can account for 61 per cent of total disposable income.

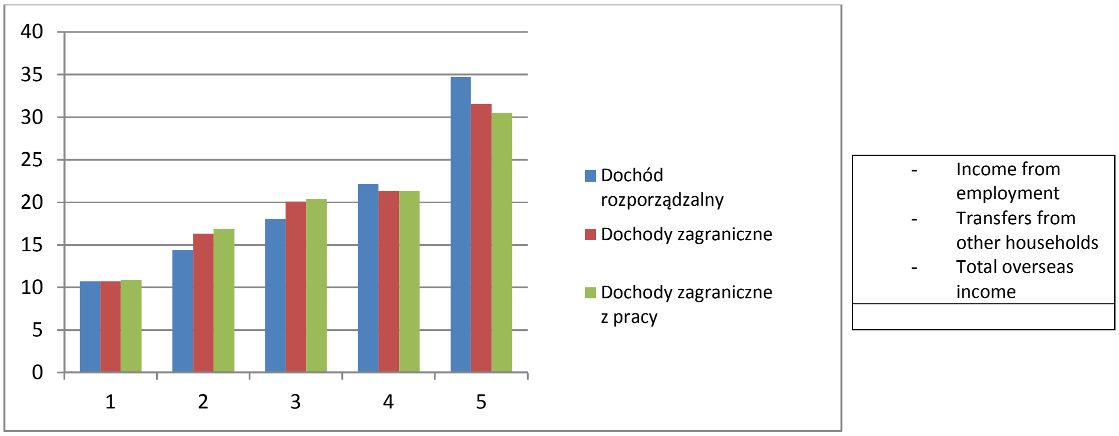
- For the moderately affluent households (the second, third and fourth quintile groups, representing the next 60 per cent of the population), the equivalent figure ranges between 62 per cent and 64 per cent.

- For the most affluent households (the fifth quintile group and the 20 per cent of individuals with the highest equivalent spending), the figure stands at 60 per cent.

On this basis, all of the households, irrespective of their level of affluence, would certainly “feel” a comparatively powerful impact from the overseas funds they receive. Also, interdependences between income and compensation received for work overseas were found to be quite similar, while just the opposite was true about income and compensation for domestic employment.

When the total income pool from overseas funds is distributed among the respective quintile groups yet more clarity emerges. Under this analysis, the least affluent households receive more in overseas income than in total disposable income, while the most affluent ones receive relatively less (although the discrepancies are not actually that high). For example, the second quintile group gets 14 per cent of all disposable income, 18 per cent of all overseas income and 20 per cent of all income from employment oversees. By contrast, the fifth quintile receives 35 per cent, 32 per cent, and 31 per cent respectively. This indicates the balancing effect of the foreign incomes, which (though not that strong) is still capable of reducing inequalities.

Figure 14. Distribution of global income by quintile group



Note: Quintile groups comprise individuals categorised by equivalent spending levels
Source: The 2008 Household Budget survey and proprietary computations

The so-called Gini coefficient is a widely adopted method of assessing relative income inequalities. It is therefore useful for us to use here as an additional frame of reference.

Using this system, income inequality is measured on a scale from 0 to 1 (where 0 represents complete inequality and 1 represents complete equality). When total disposable incomes are computed (exclusive of all overseas income) using the GUS survey findings, the indices for all families range from 0.34 to 0.35 – indicating the presence of moderate inequalities.

When foreign incomes are included in the calculation, the indices fall by 0.01. This implies a slight reduction in income disparities, which is attributable to overseas income. This effect is valid, not only for the total household population, but also for the city-level populations and, to a slightly lesser extent, the rural populations.

This conclusion is also supported by a further stage of analysis, in which we identified the effect of employment income on the levels of inequality in overall income distribution. In this analysis, we chose to focus purely on income from overseas employment (due to their comparative weighting and the fact that, unlike transfers from non-household members, they tend to constitute a fundamental component of household incomes). Again, we used Gini coefficients, this time supplemented by additional concentration indices (relating to income from employment and its contribution to disposable income).

Using this methodology, we are able to understand the way in which movements in different income components affects disparities in total incomes. And we concluded that a 1.0 per cent increase in income from overseas employment leads directly to a small, but clearly discernible, decline in income inequalities (measured with the Gini coefficient, this decline equates to 0.006). Incidentally, an opposite and much stronger impact occurs for incomes from domestic employment.

Finally, it is interesting to dig deeper into the effects of overseas income on poverty rates.

Again, we define the poverty rates as the proportion of those households whose income falls below 50 per cent of the average equivalent spending level. This calculation was made for all households taken together. We also identified a range of specific household categories (such as rural dwellers, city dwellers, specific types of household, and various age groups).

Here, our hypothetical poverty rate (assuming no overseas income) would stand at 19 per cent for all households. However, the actual poverty rate (including overseas income) equates to 17 per cent.

It follows, therefore, that overseas income are responsible for a two per centage point decrease in Poland's national poverty rates. The fall is deeper for rural inhabitants (2.1 per centage points) than for city-dwellers (1.8 per centage points), and is particularly visible in smaller towns. The main beneficiaries tend to be larger, younger families. But the effect on single individuals, on the elderly and on childless couples tends to be quite meagre.

Our overall conclusions

Over recent years, the positive impact of overseas remittances on emerging economies has been the subject of considerable debate. Again, these remittances are often referred to as the 'third pillar' of development (alongside foreign direct investment and overseas development assistance). And their value has outweighed the value of official development assistance.

Against this background it is interesting (and important) to conduct an in-depth analysis of the true impact – particularly for a country such as Poland, which has a reputation as a significant "exporter" of migrant workers and, by implication, a significant beneficiary of overseas remittances.

Through this analysis we can conclude that, yes, remittances have a clear and positive impact on Poland's economic well-being:

- At the macroeconomic level – they do increase disposable incomes and consumer expenditure and accelerate GDP growth

- At the household level – they do alleviate poverty and reduce income disparities

However, the extent of these impacts should be kept in perspective. Although they are clearly visible, they tend not to be that strong. They are also quite selective – in that they clearly favour certain demographic groups and geographic locations.

One should also exercise real caution when extrapolating these findings to other economies. They are indicative of the true sophistication of the Polish economy, its true scale as an exporter of migrant workers (not to mention their particular behaviours, family ties and responsibilities).

Having said this, one can safely conclude that remittances do have a positive impact on domestic economies. But the actual extent of that impact will be determined by the value of the remittances combined with a wide range of other variables.