



# Remittances Statistics: **First Meeting of the Luxembourg Group**

June 2006

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Ladies and Gentlemen,

I am glad to participate at this meeting and I would like to greet all participants at this of interesting event of current importance.

I would like to share with you the experience of the Republic of Moldova and particularly of the National Bank of Moldova (NBM) as the institution authorized to compile the balance of payment statistics and, by implication, to estimate data on remittances. NBM estimates are used by all other government institutions, including the National Bureau for Statistics (NBS) for compiling the national accounts and by the Ministry of Economy and Trade for its macroeconomic projects.

Moldova is a small, low-income country with an area of 34000 square km located at the cross-roads, between Eastern and Western Europe. Its population is around 3.38 million, of which active population is 1.43 million (data for the end of 2004). It is estimated that about 28 percent of the economically active population is working abroad.

Moldova's demographics and economic structure make it an ideal candidate for a high level of emigration:

- (i) the largest share of non-urban population in Europe;
- (ii) the second population density in a group of highly developed countries in Western Europe, Poland and the Czech Republic in Central Europe and Armenia in the former Soviet Union;
- (iii) strong economic, cultural and personal ties with the countries of the former Soviet Union;
- (iv) free movement (without visas) within CIS and other developing South-East Europe countries and absence of language barriers.

Labour migration and workers' remittances picked up in the wake of the 1998 with the regional crisis. The domestic economic situation was already difficult before the crisis, since the transformation from a centrally planned to a market-based economy implied drastic structural changes, resulting in output contraction and massive job losses. Despite subsequent domestic economic recovery, these trends intensified over time; with new migrants benefiting from the informal support of the growing expatriate community.

The figure shows the continually growing trend of inflows of workers' remittances which reached almost 31 percent of GDP in 2005. These data are larger compared with other developing and transition countries with large remittances, which could be explained partially by difference in data sources and methods used for estimations.

Given the high share of remittances in the country's GDP and large inflows of cash foreign exchange circulating on the exchange market the migration, so the phenomenon and the measuring of remittances became a topical subject. Remittances are an important component in the BOP; for instance in 2005 estimated remittances covered about 75 % of trade deficit.

In terms of the BOP NBM defines remittances as the sum of two credit items: Compensation of employees and Workers' remittances. The main problem in estimating of remittances arises from the fact that a large proportion is transmitted in foreign exchange cash during home visits or through trusted individuals, rather than by electronic means (such as WU and other similar systems).

The NBM's methodology for estimating remittances is based on an estimation model.

The model was elaborated taking into consideration the existing accessible and reliable data sources. In practice the NBM estimates total remittances firstly, and then splits these into workers' remittances and compensation of employees based on assumption of how long migrants stay abroad in the main regions of destination (CIS and Rest of the world). The NBM estimates

remittances transmitted as cash foreign exchange on the basis of assumptions about key household spending categories where cash foreign exchange is typically used.

The data sources for this model could be divided into two categories:

***(a) Data sources for financial flows passing through commercial banks:***

- International Transactions Reporting System
- Commercial Banks Balance Sheet - data on deposits of natural persons in foreign exchange with commercial banks
- Information on sale/purchasing of foreign exchange cash by commercial banks
- Information on export / import of foreign exchange cash by commercial banks

***(b) Data sources for key household spending categories where cash foreign exchange is typically used:***

- Information on number of transactions with real estate
- Information on average market prices of real estate
- Information on volume of investment in new real estate
- Information on number and value of cars imported by individuals (natural persons)

Main steps of remittances estimation are the following:

***A. Measure of remittances flows passing through banking system***

The financial flows of remittances passing through banking system are caught from the ITRS - the main data source which provides information on transfers made by individuals both through the electronic systems and banking accounts. The ITRS has some advantages compared to other sources:

1. It is reported by commercial banks which are supervised by the NBM, that means that the quality of reports are satisfactory, the NBM is authorized to audit the reporting;
2. There are no thresholds on data reporting, that means that banks report all transactions, that is an important element giving the fact that in the most cases the amount transferred by migrants are not very big;
3. The ITRS allows to collect data broken-down by country of origin or of destination of transfers;
4. The transfers made through the electronic systems are identified separately in the ITRS.

***B. Measure of remittances flows passing through banking system assumed to be cashed***

Money transfers with cash withdrawal are identified from financial flows sent by individuals. For this purpose household foreign exchange deposits with commercial banks are excluded from total financial flows sent by individuals.

***C. Measure of net foreign exchange cash released by commercial banks to the residents***

Data are calculated using information on sale/purchasing of foreign exchange cash and also on export / import of foreign exchange cash by commercial banks. This variable is calculated for cross – checking; it should be approximately equal to remittances flows assumed to be cashed;

***D. Measure of expenditures on markets at which transactions are mostly made in foreign exchange (real estate and cars markets).*** Assessments are made based on the information from the State Agency for Land and Cadastral Affairs on number of real estate transactions, from the

National Bureau for Statistics on value of investments in new housing constructions and from the Customs Declarations database on imports of cars by individuals;

*E. Adjustments to remittances made through commercial banks (presumably equal to remittances in cash through informal channels)*

These adjustments are calculated as difference between current year foreign exchange cash inflows for investment purposes and remittances flows passing through banking system assumed to be cashed.

*In effect, cash remittances are derived as the difference between estimated foreign exchange outflows from households and the known remittances inflows by electronic and banking transfers.*

For splitting total amount of estimated remittances into workers' remittances and compensation of employees two ratios are applied:

- (i) the ratio of transfers from CIS and Rest of the world, which is calculated based on ITRS data;
- (ii) the ratio of duration of working abroad (less and more than one year). These ratios are estimated taking into consideration the migrants categories by region: (a) migrants to CIS countries; (b) migrants to Western and Central Europe countries. Within the first category most of migrants are construction and agricultures workers that work abroad during March – November. The second category includes migrants who in the most cases go illegally to Western Europe and stay there or intend to stay more than one year (because of illegal statute).

Presented estimation model is not perfect, this approach has some shortcomings, it could be developed by (i) adding more variables at the site of expenditures in foreign exchange cash, like current expenditures and other durable consumer goods; (ii) the procedure relies on many assumptions about the payment behaviour of household's relative role of national currency, ration of cash and banks transfers, etc. Payment behaviour may change over time that is why empirical verification of assumptions is important and require periodical appropriate surveys to be conducted.

### **Additional data sources on migration and remittances**

In order to assess the estimated remittances and applied assumptions the NBM use additional data sources.

The National Bureau for Statistics conducts two statistical surveys which contain useful information for remittances estimations.

#### ***(1) Household Budget Survey***

The Household Budget Survey includes a detailed breakdown of income and expenditures. As such, it is potentially a key source of information on the socioeconomic characteristics of migrants and of the amount of remittances.

In the HBS a household member is registered as "absent" if he or she is not in the household at any time during the month of interview. With respect to this reason for a member's absence, the category of "working abroad" was added starting with 2004; from 2005, an additional question asks for how long the household member has worked abroad; and from 2006, an additional

question asks about the country of destination of those working abroad, being identified only 5 main host countries.

Concerns about HBS:

- (i) first concern is related to the prevalence of seasonal migration in Moldova. Asking only about the absence of household members in the current month the HBS obtains a broadly accurate estimate of the total number of workers staying abroad at a given time. But if household with seasonal migrants are interviewed when the migrant is at home the number of households with a migrant will be underestimated (for at least part of year);
- (ii) it appears that the HBS records remittances only if they are received during the month of the interview and also used of financial expenditures during the same month. As a result, when remittances were received during the previous month but are spent during the current month the household does not report as it has received remittances; and if remittances are received during the current month but saved, they are unlikely to be recorded because respondents may not be forthcoming to tell that they are keeping a large amount at home;
- (iii) HBS is potentially useful for analyzing the impact of remittances on household expenditures and, hence, on poverty. However, although the HBS is supposed to capture all household income, its coverage of remittances is sketchy.

Estimations of total remittances in Moldova from HBS data must be based on strong assumptions. In particular, while about 10 percent of HBS households report a migrant abroad during the month of the interview, only about 3 percent report remittances. In an exercise where was assumed that all households with a migrant also received remittances were obtained results fairly closed to NBM estimations for total remittances in 2003 and 2004.

## ***(2) Labour Force Survey***

The Labour Force Survey (LFS) provides consistent quarterly time series for the number of migrants from Moldova since 1999, broken down by socioeconomic characteristics (gender, education, location). It also records if a household member is absent because of going abroad for a job or to look for a job. From 2006, major countries of destination are noted separately. Although the LFS asks about absence of a household member during the month of the interview, rather than during a longer period of interest, the LFS captures seasonal migration better than the HBS because it is conducted quarterly.

Data on number of migrants are used more frequently for socio-demographic analysis rather than for remittances estimations.

## ***Population Census***

The Population Census was conducted by the National Bureau for Statistics in October 2004. The questionnaire included, among others, the information on temporary absent members of households, broken down by duration and purpose of absence. Implicitly it was recorded if a household member is absent because of going for a job or to look for a job. The Census results on number of migrants are comparable with data from the Labour Force Survey.

## ***Specially designed surveys***

In 2004 Moldova benefited from two surveys on migration and remittances funded by international organizations that gave valuable information on migration process.

The first survey dedicated to migration and remittances was conducted in March 2004 by Microfinancing Moldova Alliance and was funded by Soros Foundation. A follow-up of this study was a representative survey conducted by the CBSAXA opinion research centre in November 2004 and financed by the European Union Food Security Programme and the International Organization for Migration. The scope of that survey was to assess the prevalence of labour migration and estimate remittance. The NBM audited the draft questionnaire and asked detailed questions regarding the amount and use of remittances, transmission channels, destination countries, cost of migration etc. to be included in it.

The resulting report has been widely circulated and cited as the single most comprehensive source of information about migrants and remittances in Moldova. The overall level of remittances estimated from the survey for 2003 was broadly similar to the NBM's figure. The ratio of seasonal migrants in total number of migrants by geographical zones, used by the NBM in splitting remittances into workers' remittances and compensation of employees were also confirmed by the survey.

While the information collected by this survey is extremely useful, the relatively large number of sponsors (three international organizations) with different policy agendas led to a multiplicity of questions and many mission data points. Other technical concerns relate to sample selection and the weighting scheme used to extrapolate sample information to the Moldovan population as a whole.

A new similar survey is going to be conducted in July 2006 by the CBSAXA with the support of International Organization for Migration. The questionnaire was revised in view to focus on essential information and keep its design simple, consistent and straightforward.

### ***Counterparts***

Unfortunately not comprehensive and reliable counterpart data are available at the moment, partially due to the different methodology used in estimating remittances.

There is a specific for Moldova problem in using the counterpart statistics: Moldova's BOP and implicitly remittances statistics do not include data for a part of territory called Transnistria, which is not under control of Moldovan authorities. The counterparts' statistics include data for whole territory that is why our statistics are no comparable.

Even with this concern in 2005 NBM made an attempt to reconcile its data on remittances from Russia with estimations made by Central Bank of Russia. This attempt was not very successful first of all because of above-mentioned inconsistency, and, also, due to the fact that Russia does not compile BOP with Moldova. Figures presented on our request were dramatically underestimated and incomparable with data on electronic transfers from Russia to Moldova published by Central Bank of Russia.

### **Migrants Transfers**

Migrants' transfers in the BOP of Moldova include estimations of assets (financial and in kind) brought by migrants coming / leaving for a permanent living into the country. Estimations are based on following data sources:

- for emigrants from Moldova:
  - (i) ITRS (NBM);
  - (ii) Information on authorized withdrawal of foreign exchange in cash by individuals (NBM);
  - (iii) Report of emigration of Moldovan citizens (Ministry of Informational Development)
  
- for immigrants in Moldova:

- (i) ITRS (NBM);
- (ii) Report on immigrants in Moldova by country of emigration (National Bureau of Migration)

Data are estimated starting from the number of immigrants / emigrants and the assumptions regarding the value of imported / exported assets by country of migrants' origin / destination.

### ***Conclusions:***

The main conclusions regarding the remittances data compilation are:

- (i) Migration and remittances are country specific issues; it depends on many factors such as geographical location, legal regulation of cross-border movement in host countries, language barriers, education level of migrants, etc. That is why countries should take into consideration their own specifics while elaborating estimation method.
- (ii) As the factors that influenced migration and remittances are changeable the methods of their estimation can not be permanent. They need periodical revisions.
- (iii) Even if the data sources used for estimations seem to be reliable, use of additional data sources for validation of assumptions is necessary.

Regarding the new aggregate, "personal remittances", to be introduced in the balance of payments as memorandum item (comprising "net" compensation of employees and current transfers made or received by households), we consider that this indicator will be very useful for the monetary policy makers. Even at present we calculate this indicator on regular basis and at the request of users.

# Luxembourg Group on Remittances

Moldova:

## Compilation of Data on Remittances

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26 - 27 June, 2006

Luxembourg

Tamara Razin

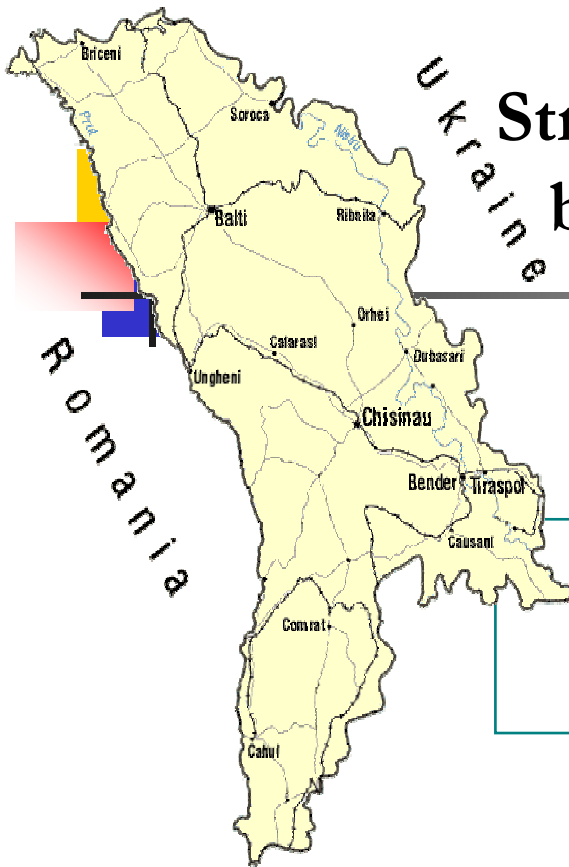
Balance of Payments Department

National Bank of Moldova



# Geographical Location

Strategically located at the cross-roads,  
between Eastern and Western Europe



*Capital: Chisinau*

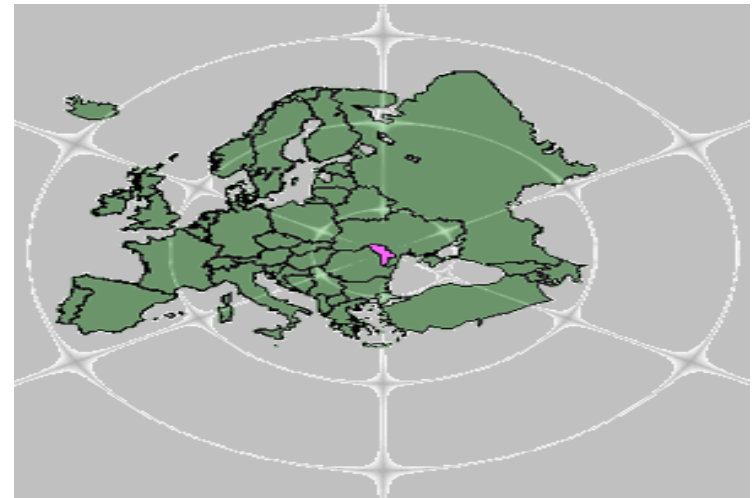
*716.530 people*

*Population:*

**3.38 million**

*Area: 34,000*  
**km<sup>2</sup>**

*Roughly equal to*  
*Belgium*



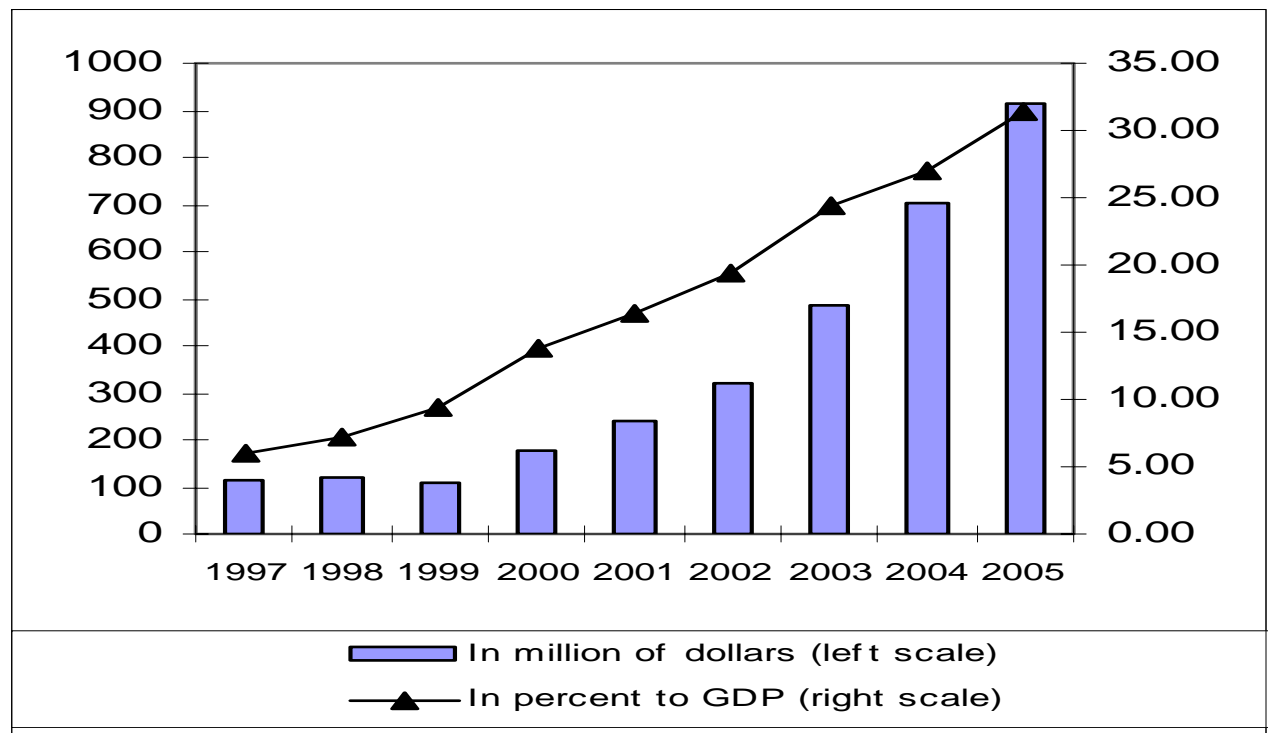


# Emigration premises

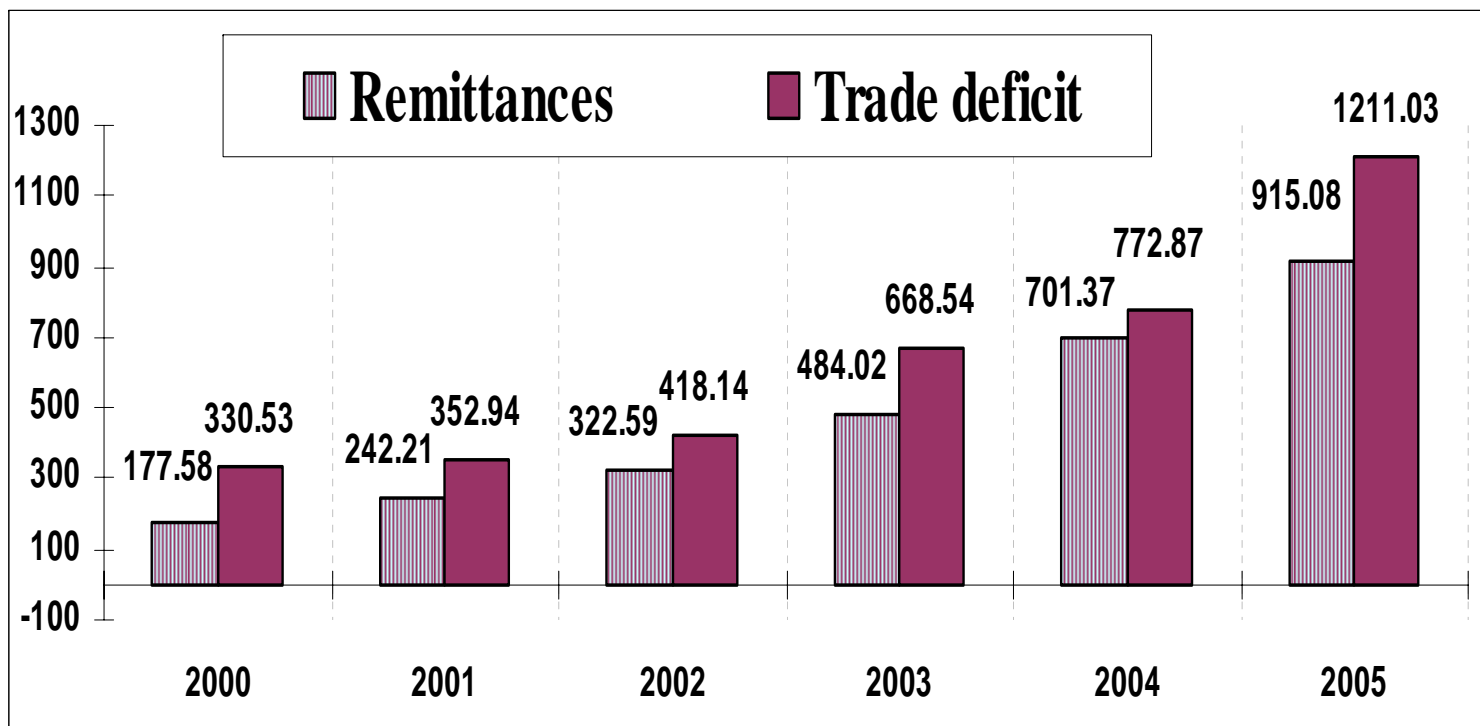
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- the largest share of non-urban population in Europe
- classified in the second group of countries regarding the population density, among Denmark, Poland, the Czech Republic and Armenia
- strong economic, cultural and personal ties with the countries of the former Soviet Union
- free movement (without visas) within CIS and other developing South-East Europe countries and absence of language barriers

# Gross Remittances to GDP ratio



# Gross remittances and trade deficit





## Why this method was chosen?

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- No relevant statistics on number of migrants working abroad illegally
- No data on ratio of money transferred through non-official channels
- No applicable counterpart statistics on remittances to Moldova



# Main Data Sources for Remittances Estimation Model

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## *Data sources for financial flows passing through commercial banks*

- International Transactions Reporting System
- Commercial Banks Balance Sheet - data on deposits of natural persons in foreign exchange with commercial banks
- Information on sale/purchasing of foreign exchange cash by commercial banks
- Information on export / import of foreign exchange cash by commercial banks



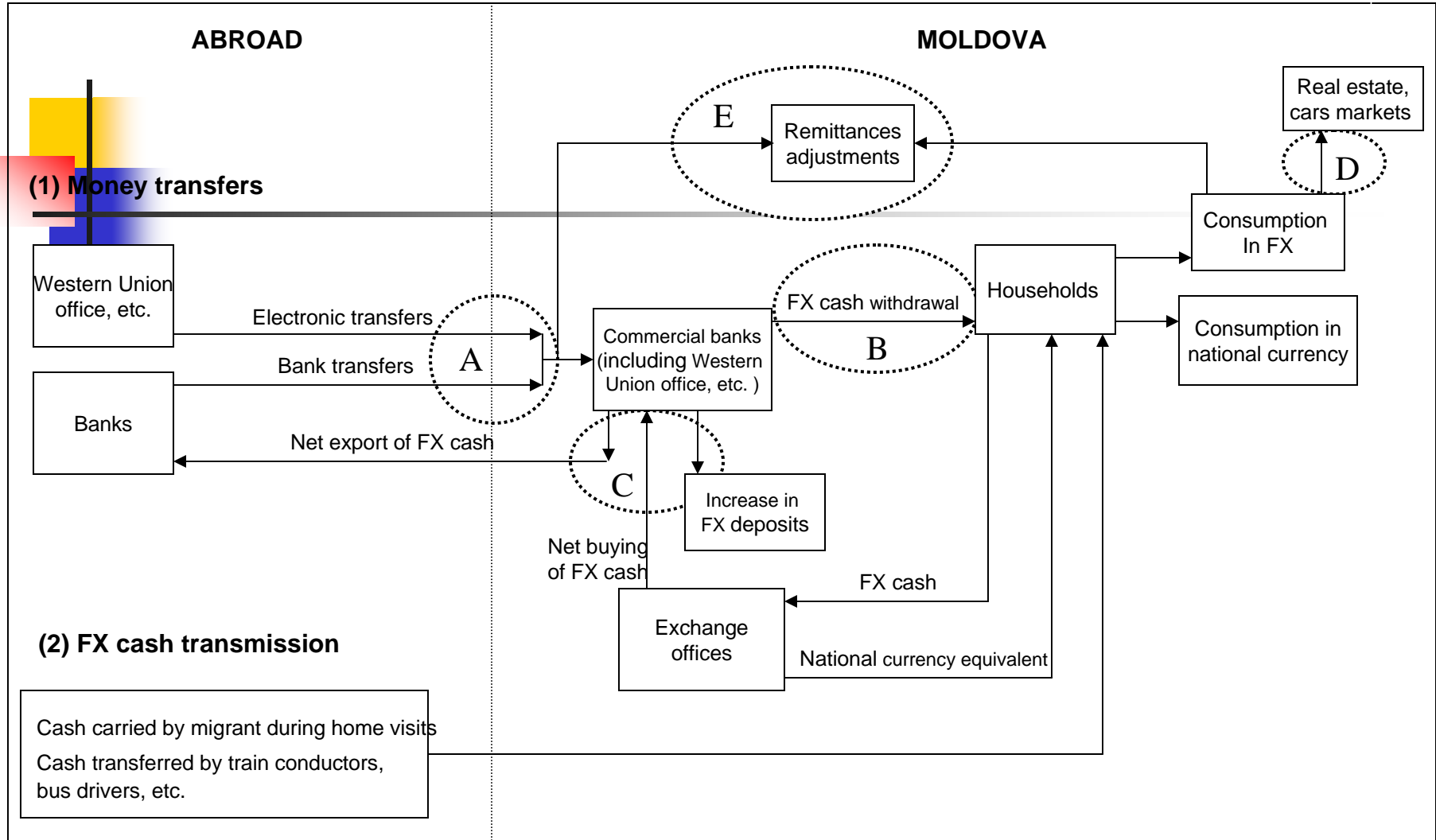
## Main Data Sources for Remittances Estimation Model (continuation)

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*Data sources for key household spending categories where cash foreign exchange is typically used*

- Information on number of transactions with real estate
- Information on average market prices of real estate
- Information on volume of investment in new real estate
- Information on number and value of cars imported by individuals (natural persons)

## NBM: Remittances estimation model



- A. Measure of remittances flows passing through banking system
- B. Measure of remittances flows passing through banking system assumed to be cashed
- C. Measure of net foreign exchange cash released by commercial banks to the residents
- D. Measure of expenditures on markets at which transactions are mostly made in foreign exchange
- E. Adjustments to remittances made through commercial banks (presumably equal to remittances in cash through informal channels)





## Main steps of remittances estimation

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- A. Measure of remittances flows passing through banking system
- B. Measure of remittances flows passing through banking system assumed to be cashed
- C. Measure of net foreign exchange cash released by commercial banks to the residents
- D. Measure of expenditures on markets at which transactions are mostly made in foreign exchange
- E. Adjustments to remittances made through commercial banks (presumably equal to remittances in cash through informal channels)



# Shortcomings of the estimation model and ways of improvement

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- the model relies on many assumptions about the payment behaviour of household's relative role of national currency, ratio of cash and banks transfers, etc. Payment behaviour may change over time. Empirical verification of assumptions is important and requires periodical appropriate surveys to be conducted
- more variables should be added at the site of expenditures in foreign exchange cash, like current expenditures and other durable consumer goods



## Additional data sources on migration and remittances

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- Household Budget Survey
- Labour Force Survey
- Population Census
- Specially Designed Surveys



# Household Budget Survey

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## Advantages:

- Collect data on “absent” household members working abroad - 5 major host countries and others are specified
- Collect data on received remittances during the interviewed period
- Potentially useful for analysing the impact of remittances on households economic level

## Disadvantages:

- Underestimation of number of households with seasonal migrants
- Underrecording of received remittances
- Distribution of data by a small number of countries



# Labor Force Survey

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## Advantages:

- Provides consistent quarterly time series on number of migrants by major countries of destination
- Collects data on “absent” household members working abroad
- Better captures seasonal migration as it is conducted quarterly

## Disadvantages:

- Does not provide data on remittances
- Distribution of data by a small number of countries



# Population Census

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## Advantages:

- Provided information on temporary absent household members by duration and purpose of absence
- Implicitly recorded if a household member was absent because of going for a job or to look for a job

## Disadvantages:

- One time survey
- Provided data on migrants are relevant only for a short period of time giving the changeable character of migration



# Specially Designed Surveys

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## Advantages:

- Address special issues on migration and remittances:
  - Number of migrants;
  - Countries of destination;
  - Amount of remittances;
  - Use of remittances;
  - Transmission channels;
  - Cost of migration;
  - Ratio of seasonal migrants in total number of migrants, etc.;



# Migrants' Transfers

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Include estimations of assets (financial & in-kind) brought by migrants coming / leaving for a permanent living

Data sources:

(i) for emigrants from Moldova:

- ITRS (NBM);
- Information on authorized withdrawals of foreign exchange in cash by individuals (NBM);
- Report on emigration of Moldovan citizens (Ministry of Informational Development)





## Migrants' Transfers (continuation)

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Data sources:

(ii) for immigrants in Moldova:

- ITRS (NBM);
- Report on immigrants in Moldova by country of emigration (National Bureau of Migration)



# Conclusions

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- Migration and remittances are country specific issues, depend on many factors such as geographical location, legal regulation of cross-border movement in host countries, language barriers, education level of migrants, etc. That is why countries should take into consideration their own specifics while elaborating estimation method
- As the factors that influenced migration and remittances are changeable the methods of their estimation can not be permanent. They need periodical revisions
- Even if the data sources used for estimations seem to be reliable, use of additional data sources for validation of assumptions is necessary



## Proposed changes in the BOP

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“Personal remittances”, to be introduced in the balance of payments as memorandum item (comprising “net” compensation of employees and current transfers made or received by households), is very useful for the monetary policy makers



# Luxembourg Group on Remittances

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Thank you for attention!