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Surveys as an important source of information for external sector statistics in Central Banks: the case of Armenia¹

Diana Afyan,
Central Bank of Armenia

¹ This paper was prepared for the meeting. The views expressed are those of the authors and do not necessarily reflect the views of the BIS, the IFC or the central banks and other institutions represented at the meeting.

Surveys as an important source of information for external sector statistics in Central Banks: the case of Armenia

Diana Afyan

Central Bank of Armenia, Statistics department, Sample Surveys and Analysis Division

Abstract

This paper presents a general description of the use of surveys by the Central Bank of Armenia (CBA) to compile external sector statistics. Central Bank usually collects financial sector primary data by reporting system, but data for corporations and households is either collected by National Statistical Service or by sample surveys. By doing surveys, Central Bank could acquire some specific information needed to improve data for external sector statistics what is not available from administrative records. Survey among others is classified as an important tool to gather information and it is acknowledged that surveys have supported economist to assess not only the numbers but also the behavior driven behind that numbers.

CBA has several surveys in this field: Survey of Money Transfers from Abroad, Seasonal Workers Survey, Survey of Workers' Remittances, cross checking surveys. As there are some errors and biases in the survey's results that make some puzzles of economic condition, CBA consistently and periodically reviews the surveys methodology and technical parts to minimize the errors and face the challenges, particularly in the quality of the survey and their optimum utilization.

The aim of this paper is to analyze the benefits of conducting surveys in order to get valuable information to improve external statistics and formulate policy decision. This paper discusses and analyzes the use and the organizing processes of surveys undertaken by CBA, the weaknesses and challenges that it faces.

The organization of the paper is as the following. The first section explains statistics collection process through surveys, including the definition of the surveys made by CBA and its role. Part two describes the surveys based on the theory and local methodologies. Section three gives an overview of the issues, errors and bias in the surveys conducted by CBA. The final part discusses conclusion of the paper.

Keywords: sample surveys, survey methodology, balance of payment, external sector statistics, remittances, money transfers

JEL classification: C10, C18, C82, C83, D10, D31, E58, F22, F24, I30, R23

Contents

Introduction.....	2
Definitions and an overview of the use of the surveys done by Central bank of Armenia.....	2
External sector statistics surveys conducted by the Central Bank of Armenia	6
General Methodological issues, errors and bias in surveys.....	8
Conclusions.....	9
References.....	10
Annex	11

Introduction

Central Bank of Armenia (CBA) with the objective of maintaining price and financial stability has core functions in monetary, financial stability and payment system. Notwithstanding CBA has acquired primary data from reporting, it is insufficient to understand the real state of economy, the factors behind the numbers, and the behavior of economic agents.

When implementing a statistical compilation system, decisions have to be made about some of its specific features: type of data to collect (administrative vs. statistical data), the level of detail (aggregated vs. transaction-by-transaction), type of information (both stocks and flows vs. deriving flows from stocks or vice versa), collection method (census vs. sample survey) and reporting channel (indirect vs. direct reporting). In general, administrative data has low costs and allows the reuse of an existing dataset – either as a direct input for statistics or as a tool for data quality control. However, for the compiler, possible drawbacks may exist in terms of its coverage (targeted population), timeliness, frequency and lack of harmonization with existing statistical classifications and definitions. On the contrary, data collected specifically for a given statistical purpose will ensure adequate coverage and frequency, as well as compliance with statistical methodologies and concepts, but will imply a limited use of the data and potentially larger data collection costs. For respondents, the use of administrative data lowers their response burden and avoids the need to be aware of statistical methodologies and concepts.

Definitions and an overview of the use of the surveys done by Central bank of Armenia

Central Banks usually collect primary data by reporting system: Central Bank of Armenia is the only institution compiling monetary and financial statistics in Armenia. It is responsible for collecting, finalizing, and promulgating monetary and financial statistics. CBA's Statistics Department directly receives the data from financial institutions operating in the country (including banks, credit organizations, insurance and investment companies, stock exchange, etc.). From 2011 to present CBA is also responsible for the BoP compilation; from mid-1990s to 2011 it was made by the National Statistical Service (NSS), BPM6 methodology implemented from 2011.

Data for corporations and households is either collected by National Statistical Service (NSS) or by sample surveys. It is acknowledged that surveys has supported economist to assess the real path of economy growth and inflation to support policy decision making process, so CBA needs to conduct

surveys, particularly in corporations and households not only for external statistics but also to support policy making decision process. Since 2003 CBA has done up to 15 types of surveys.

Survey is a way to obtain information regarding future condition, including the behavior and the expectation of market. By knowing this information and data, central bank could track its objective achievement, establish more appropriate policy adjustment, and acquire some specific information needed since data movement in reporting system does not reflect the behavior driven behind the number. Moreover, flexible information needed could be tailor-made by central bank by conducting surveys to dig up deep information of preferences, reaction, reason, planning, and other forward looking actions of specific situation. Surveys are the tools to track economic trend and other indicators.

It is undeniable that there are some advantages and disadvantages of different ways in conducting the surveys. Yet, there is no such the best way that fit to every survey. Surveyors should tailor the ways of survey based on their need in terms of the objective, respondent sampling, information collected, time, and budget constraint. Sometimes there is a trade-off between the cost and the quality. For example, the written survey by mail is easier and less costly, yet it usually has low response and is difficult to communicate the missing part.

The main pros of face to face surveys are that the surveyor could achieve a 100% response rate of the questions, decide on follow up question and hear far more than just what the interviewee tells. Cons for the face to face surveys are that this kind of surveys require considerable training, are time consuming and costly to conduct and unless strictly controlled, interviews can easily meander from the main subject.

International experience shows that there are very few central banks that are not involved at all in the collection of external sector Statistics (Argentina, Canada, Hong Kong, Norway and Australia) and some are only involved to a limited extent (Denmark, Finland, Iceland, India, Italy, Turkey and the United States). More than two-thirds of the central banks are either responsible for the full BOP and IIP statistics or at least for the financial accounts of the BOP and the IIP (including external debt). In terms of collection techniques used, ITRS or a variant of this method is used by the central bank in India, Israel, Latvia, Luxembourg, Macedonia, the Philippines, Portugal, Russia, Slovakia, Spain, and Thailand. Even in these countries, balance sheet data from banks or financial institutions are typically collected through a regular census or cut-off the tail reporting. Surveys are used to collect information on travel or tourism (Estonia, Germany, Greece, Italy, Mexico, Portugal, Russia),[□] trade in services (Israel, the Philippines, Russia, Sweden), transfer payments (list countries: BIS, Data Bank Services),[□] foreign direct investment (Austria, Chile, the Philippines, Sweden, Turkey), trade credit (Belgium, Chile, Czech Republic), corporate sector foreign assets and liabilities (India, the Philippines, Portugal, South Africa, Turkey), derivative transactions (Sweden), and remittances (Israel).

It should be noted that the use of surveys varies significantly from country to country. There seems to be a general trend towards an increased use of surveys in the compilation of external sector statistics. The extent to which surveys are used also depends on national contexts and on the institutional relationship and sharing of statistical competence between the statistical offices and the central banks.

With increasing globalization and developments timely compilation of external sector statistics as per the international standards, has become extremely important from the point of monitoring and analysis of external sector vulnerability and taking appropriate informed decisions. External sector statistics are the key economic indicators for central banks and monetary authorities. They shed light on the size and composition of a country's external trade in goods and services as well as its financial transactions with the rest of the world. They also provide information on the nation's international asset and liability position, including its external liquidity and debt. All these are crucial variables in order to assess current and prospective developments in exchange rates and the country's vulnerability to external shocks.

For all these reasons, it is not surprisingly that in many countries the central bank is responsible for the compilation of the external sector statistics, i.e. the balance of payments (current and financial accounts), the international investment position, and external debt statistics. Even where the central banks are not directly involved in the production of these statistics, they need to ensure that they are coherent and compatible with other statistics such as money and banking, national and financial accounts.

There are two complementary sources for collecting information of external statistics: indirect and direct reporting. Both sources complement each other. Examples of indirect reporting sources are: data from the National Customs, the Internal Revenue Service, and the International Transactional Reporting System.

The choice of data collection methods and sources is an important strategic decision as it will impact a large number of aspects, including IT architecture, response burden imposed, data availability and implementation and running costs. The selection of the actual reporting scheme will depend on national specificities, like the size of the targeted population, the reporting practice and the institutional sector (e.g. a collection system designed for banks or non-financial companies may not bring good results in the case of households).

For direct reporting, the CBA uses surveys. It is acknowledged that primary data from the report is not sufficient to tell the story behind the numbers. Therefore, economic intelligence by survey is expected to support the factual information to identify the actual current economic condition and to forecast the future state of economy. Surveys are fundamental input for the compilation of the BOP and the IIP. They provide information to the national accounts, are the base for other economic surveys and provide information for economic research.

In Armenia BOP follows Balance of Payments Manual, sixth edition (BPM6) by the IMF and data gathering is as follows:

External trade statistics (ETS) based on the customs declarations and special sources for electricity and gas. Quarterly balance of payments statistics produced from a variety of sources (customs, CBA, Ministry of Finance, and Department of Migration).

Foreign direct investment statistics is based on a quarterly survey of non-financial companies conducted by the NSS. The enterprises are identified from the business register and from the media. CBA provides the data on banking sector and financial companies; Ministry of Finance provides information on the public sector.

International investment position statistics is based on the BOP, data from CBA, data from the Government, and the NSS calculations. Market prices are not used for external debt because there is no exchange for many of the instruments.

Data on tourists are available from hotels and from the Department on Migration. CBA compiles data on financial services of the banking sector.

Data for trade in services is largely based on expert assessment and partly informed by business surveys. The NSS conducts quarterly surveys of private non-financial companies covering communication, transportation, computing, and other services.

From a perspective of the CBA the most important surveys for external sector statistics to measure remittances are Seasonal Workers Survey, Survey of Households' Remittances and Survey of Money Transfers from Abroad/from banks. For remittances, there is now a good basis for correcting the data from the banking system and for splitting the private transfers and identifying the part of investment.

Remittances surveys typically focus on several key issues like the determinants of remittances sending, the impact of remittances on poverty, the ways in which migrant households use remittances, methods of sending and the differences between how domestic and international remittances impact poverty and development. These issues are addressed through questions in the following categories: basic demographic information, characteristics of remittance senders and recipients, patterns of sending and extended questions on use of transfers, financial integration and transnational issues. Remittances surveys are critical to obtaining information on channels of transfer and spending structure of remittances and their development impact.

In literature personal remittances are equal to personal transfers plus compensation of employees. Personal transfers refer to the transfers between resident and nonresident households and compensation of employees refers to the income of border, seasonal, and other short-term workers who are employed in an economy where they are not resident and residents employed by nonresident entities.

For Armenia remittances are the funds sent by migrant workers to their relatives in home countries. This data is an increasingly important source of external finance for such a developing country as Armenia and experts in this field believe that informal flows of remittances areas are as large as formal flows.

BoP as source of data on remittances allows to monitor dynamics of remittance flows on the regular quarterly basis by countries of origin and destination, to calculate an average amount of a non-cash transfer sent through an official channel, to make projections regarding future trends on remittances based on the evaluations of the current macroeconomic situation and available data on remittance flows and to compare data on remittances across countries using the same methodology of Balance of Payment Manual 6.

BoP data does not allow to define migrant status of a sender: long-term, short-term or seasonal migrant/worker, to learn the target allocation of the transfer and its actual spending, to estimate non-monetary remittances, to learn gender differences of remittance sending patterns, to judge about the development impact of remittances and to learn about those who benefit from remittances.

Several cross checking surveys such as random panel surveys of travelers at the borders, in airports, rest areas on motorways or by mail/internet are also compliment external sector statistics. In the future there are plans to cooperate with National Statistical Committee to start surveys for TSA compilation. Ad hoc surveys have been used to collect specific economic intelligence, particularly when the economic diagnostic indicates there is a certain issue. To confirm the fundamental issues, by interviewing related respondents, surveyor could gain in depth insights of economic condition and the expectation of business agents.

Remittances surveys are categorized by the unit of analysis: the household (households getting money transfers) and the individual (seasonal workers). These approaches differ in terms of the kinds of information that can be obtained, the resources necessary to implement them, and in some cases, in terms of philosophical approach. The household surveys are extended household and head of household (or non-extended household), both of which are used to obtain information about remittances flows at the macro level and are among the most resource intensive methods. Targeted individual surveys are place-based and point of presence or group surveys, which are used to obtain information directly from known remittance senders and recipients.

External sector statistics surveys conducted by the Central Bank of Armenia

As it was mentioned above surveys for external sector statistics to measure remittances are Seasonal Workers Survey, Survey of Households' Remittances and Survey of Money Transfers from Abroad/from banks¹.

There are some pre-conditions to start **Survey of households getting money transfers from abroad**: limitation of the official statistics from the beginnings of 2000s, discrepancy between official statistics and the real situation and high level of non-official money transfers by that time. The main purpose of the survey is assessing the real level of money transfers, especially transfers made by non-official channels, evaluating the level of transfers, main channels, currency, frequency and seasonality, data about the residency of people who send money transfers, their residence country and so on.

It is also important to analyze the distribution of money transfers by the sending country and by sector of employment of transfer senders, to have the duration of stay of migrants abroad, the minimum acceptable wage for work in Armenia, the proportion of the funds received in total household income, the areas of remittances spending, duration of sending and receiving of remittances.

The population includes both urban and rural households (sampling units) that received remittance at least once in the year. In urban areas (Yerevan and other cities) single-step stratified sampling method is used. In rural areas two-stage stratified sampling method is used. On the first level villages in each region are chosen by the method of probability proportional to the population. At the second level required number of households selected by random sampling. The sample includes all the urban areas (city) and 40 villages in all regions and should include households with emigrants and non-migrant households. Non-response rate was 40%. For ideal case households surveys should be conducted both in all parts of a country and in selected regions with high migration turnover.

Survey of seasonal workers is conducted to identify the level of seasonal workers, to define the main areas and countries of employment, to measure the level of income earned abroad and so on. Sample is non statistical, based on expert judgments. Non-response rate was 30%

The population includes both urban and rural households (sampling units) that have seasonal worker. Three-stage stratified sampling design method is used: defining strata (e.g. urban-rural, districts), selecting clusters or primary sampling units – PSUs (e.g. villages, blocks), selecting households. Expert sampling plus snowball sampling to catch more returned seasonal workers is used. Stratification, e.g. by geographical areas, splits a single survey into multiple surveys and guarantees in advance that there will be enough observations for each area for estimations. Statistical advantage is that stratification reduces the variance of estimates by using prior information. Clustering reduces costs and makes it worthwhile to collect village or community information. Statistical disadvantage is that clustering increases the variance of estimates.

Sampling errors arise due to looking at a sample only, and not the entire population, decrease with sample size (though not proportionally) and can be reduced by adequate sample plan and accounted for by using weights.

Each survey require a clear statement of objectives and a clear conception of the population, or survey universe, that will be studied in order to determine how in-depth the survey will need to be and what types of questions it will include.

¹ See sample size and other parameters in annex.

In designing the questionnaire of each survey, CBA gathered all the needs of analyst, economist, and researcher in the central bank. All of surveys are designed not only for BOP Statistics but also to support the analysis and recommendation to the policy maker or board of governor.

Demographic information is essential for understanding remittances trends and priorities along specific corridors or regions. Groups and sub-groups have different characteristics of sending that provide information on how gender and age; countries of origin and migration; length of time sending; income and educational levels of senders and receivers; influence the amounts sent, mechanisms of sending, and use of funds.

Questionnaires include additional information on transnational issues, alternative payments, detailed gender issues, and living conditions. Transnational issues measure the degree to which a migrant stays involved, financially or otherwise, with their home town or country. Questions to find out if remittances may be sent as a form of insurance or to improve chances of receiving an inheritance; to be invested in the home country; to pay back loans received for the initial migration; simply to maintain linkages with the home country; as a reflection of the intention to return to the home country; or out of pure altruism.

Survey of commercial bank clients getting money transfers conducted among individuals (clients of banks) receiving remittances from abroad and sending those abroad. The survey currently includes all 17 banks in Armenia and 2-3 lending organizations that cover almost 94-96% of transfers. A short questionnaire of 5-8 questions is provided by the bank to clients to fill. Banks collect and pass the completed questionnaire to the CBA. The structure of the questionnaire is as follows:

- Currency, amount
- Where/from where the funds are sent/received
- Residency of the sender
- Residency of the receiver
- The type of the transfer
- Purpose of the transfer

This surveys allows to break down the total volume of transfers by the purposes of transfer (current or capital), separate money transfers sent for real estate transactions, evaluate capital transfers and direct investment, assess transfer levels by the residency of the senders, get better data on the share of non-residents in non-commercial transfers received/sent from abroad and cross-check the data on remittances providing by official reporting forms.

The main output ratios from these 3 surveys are:

- cash/non cash ratio,
- Seasonal worker/migrant ratio
- the share of services for seasonal workers
- the share of nonresidents in noncommercial transfers
- the share of capital transfers

- The share of direct investments
- Other ratios upon requests

General Methodological issues, errors and bias in surveys

Survey basically is intended to identify the population/group behavior or condition, not individual characteristics. Based on the statistics measured, analyst could draw inferences about the characteristics of the group or specific population.

Groves et al (2004) stated that there are two requirements to achieve true inference: answers of the survey must accurately describe the characteristics of respondent and the respondents must have characteristics similar to those of the targeted population/group observation.

When this prerequisite is not met, then survey statistics will contain error. Error is defined as deviation of what is expected in the survey than what is gained. To understand why error occurs in a survey we need to go through the procedure of conducting a survey. The methodology of the survey identifies the design; collection, processing, and analysis of survey in the framework of benefit and cost constraint. Each step has an effect on the quality of the survey and involves cost implication. Poor design and execution in each step in the survey; will generate bias and error. The fundamental challenge in the survey is how to minimize error so as to achieve the objective. So identification of errors is necessary to minimize its gap and get more objective data.

There are some possibilities of errors evolved such as errors related to questionnaire design (e.g. difficult questions) and data collection (e.g. interviewer bias), respondent bias (e.g. sensitive topics, recall bias, incentives to understate or overstate), poor record, processing mistakes, inappropriate/missing sampling, coverage error (e.g. interviewers miss households), faulty frame, non-response error, adjustment error, measurement error and processing error. In building the survey design, surveyor has to minimize error in survey statistics by minimizing gap between successive steps. Random errors are not a big problem as they tend to cancel out with increasing sample size.

The design and process of survey should be thoroughly prepared as it is difficult to step back when the survey has begun. Nonetheless, the refinement of the survey is usually done when there is bias in result. Some of the huge surveys need to be tested through the pilot project so that fine tuning in questionnaire and in sampling could improve the quality of the result and its effectiveness.

There are several strategies to minimize errors in each step of conducting survey. For example during planning and interpretation process the errors can occur because of the inadequate definitions of concepts, terms or populations. So it is important to ensure all concepts, terms and populations are defined precisely through consultation between data users and survey designers.

Survey always relates to a sample selection of population. Sampling error usually occurs to a particular group selection which does not represent the targeted respondents and sample size that creates low response rate. So inadequate list from which sample is selected is also could be a source of bias. To minimize it survey designer must check list for accuracy, duplicates and missing units; use appropriate selection procedures.

It is also important to choose an appropriate method (face to face, mail, telephone or other type of survey) and test thoroughly, use plain language, clear questions and logical layout in questionnaires, provide clear interviewer instructions and appropriate training, including exercises and field supervision.

To avoid or minimize these kinds of errors CBA evaluate the survey and its results periodically. Weaknesses and challenges among others are low response rate, bias sampling, discontinue response of panel data respondents, refusal, misinterpret questionnaire, and bias answers. Even though, there is a legal basis in the act of central bank for the surveys undertaken, hitherto there are a lot of refusal and discontinued response of respondents. Central bank has no authorities to penalize or enforce respondents to participate in the surveys.

In dealing with obstacles in surveys, CBA always makes efforts in building engagement with the respondents. The most difficult thing is in maintaining the panel data of the survey. To fill the missing respondents of panel data, Central Bank always replaces respondents to persistently maintain appropriate structural sampling. Inappropriate respondents in panel data might also create biases in results. Therefore, CBA refreshes the respondents periodically, particularly respondents with high bias result.

Conclusions

- Remittance statistics based on BoP data produced by national banks has limitations in what concerns characteristics of the flows and remittance senders/recipients, informal and in-kind remittances, as well as spending structure.
- Households' surveys can fill in this information gap by obtaining the missing information directly from migrants and migrant households
- BoP remittance data and Households' survey data should be considered as complementary rather than alternative sources.
- Using BoP statistics, development impact of remittances/dependency of economies on remittances can be calculated at the macro level (remittance share in GDP, etc.).
- Households' survey allows investigating the actual impact of migrants' transfers on the receiving households' wellbeing, i.e. micro level.
- Surveys can provide information about individuals and/or about transactions, whereas official BoP statistics focus on aggregate amounts.

Central Bank of Armenia is continually working to improve its entire data collection systems, and provide strong support to the areas in charge. In the specific case of external statistics, a combined system to collect data is used. However, in the past few years, data quality issues and new statistical requirements have increased the use of surveys as a method to collect information. Currently, some of these surveys are undertaken directly by the CBA, while some are run by other institutions. In addition, the burden on respondents is closely monitored by data collectors, as well as the use of any new request of information.

As there are some errors and biases in the survey's results that make some puzzles of economic condition, CBA consistently and periodically reviews the surveys methodology and technical parts to minimize the errors and face the challenges, particularly in the quality of the survey and their optimum utilization.

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Annex

Data for Seasonal Workers and Households' Remittances Surveys

Year	Sample Size	Minimum number of respondents for representative sample	Margin of error	Confidence interval
2010	1800	1691	2%	90%
2014	2020			
2016	2367			

Sample size was calculated

$$S = (z^2 (d(1 - d)))/e^2$$

Where` S is sample size,

z-score = 1.645, for 90 % confidence interval,

e = 2 %, margin of error

d = 0.5, standard deviation:



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Surveys as an important source of information for external sector statistics in Central Banks: the case of Armenia

Diana Afyan
Central Bank of Armenia



The aim of this paper is to analyze the benefits of conducting surveys in order to get valuable information to improve external statistics and formulate policy decision

This paper discusses and analyzes the use and the organizing of surveys undertaken by Central bank of Armenia (CBA), the weaknesses and challenges that it faces



Contents

- The role of surveys in external sector statistics
- Definitions and an overview of the use of the surveys done by CBA
-
- Modern challenges; Surveys vs other sources
- Conclusions



General overview

Statistics in CBA:

- Legal and institutional framework
- The organizational structure of the Statistics Department

External sector statistics

- Sources and uses of data
- Definition of surveys and its role
- Main goals of the external sector surveys



The role of Surveys in External Sector Statistics: Remittances

- Remittances-funds sent by migrant workers to their relatives in home countries-are an increasingly important source of external finance for developing countries.
- experts believe that informal flows of remittances areas large as formal flows.
- Remittances represent household arising mainly from the temporary or permanent movement of income from foreign economies people to those economies.



Remittances

- Personal remittances = personal transfers + compensation of employees
- Personal transfers refer to the transfers between resident and nonresident households
- Compensation of employees refers to the income of border, seasonal, and other short-term workers who are employed in an economy where they are not resident and of residents employed by nonresident entities.



Characteristics of the BoP as source of data on remittances

BoP data allows:

- To monitor dynamics of remittance flows on the regular quarterly basis by countries of origin and destination
- To calculate an average amount of a non-cash transfer sent through an official channel
- To make projections regarding future trends on remittances based on the evaluations of the current macroeconomic situation and available data on remittance flows
- To compare data on remittances across countries using the same methodology of Balance of Payment Manual 6



Characteristics of the BoP as source of data on remittances

BoP data does not allow

- Define migrant status of a sender: long-term, short-term or seasonal migrant : worker
- Learn the target allocation of the transfer and its actual spending
- Estimate non-monetary remittances
- Learn gender differences of remittance sending patterns
- Judge about the development impact of remittances
- Learn about those who benefit from remittances



Remittances surveys are critical to obtaining information on

- characteristics of remittance senders and recipients,
- channels of transfer,
- spending structure of remittances and their development impact.

Remittances surveys require a clear statement of objectives and a clear conception of the population to be studied in order to determine how in-depth the survey will need to be and what types of questions it will include.



Surveys made by CBA

Measuring Remittances

- Survey of Money Transfers from Abroad/ from banks
- Seasonal Workers Survey
- Survey of Households Remittances

Future plans

- Random panel surveys of travelers at the borders, and airports
- TSA
- Other surveys to improve external sector statistics



Remittances surveys

typically focus on several key issues:

- determinants of remittances sending;
- the impact of remittances on poverty;
- the ways in which migrant households use remittances;
- methods of sending;
- and the differences between how domestic and international remittances impact poverty and development.

These issues are addressed through questions in the categories of:

- basic demographic information and patterns of sending;
- competitive market conditions;
- and extended questions on use of transfers, financial integration, transnational issues, and living conditions of senders and/or receivers.



An overview of the surveys done by CBA

Sample

Questionnaires' and sensitive questions about the amount of remittances

Measurement errors

Challenges

- Selection of survey respondents
- Data quality
- Compilation challenges
- Surveys vs other sources



Sample

stratified random sampling within PSUs

- two phase sampling for urban areas
- tree phase for rural areas

three-stage sample design

- Defining strata (e.g. urban-rural, districts)
- Selecting clusters or primary sampling units – PSUs (e.g. villages, blocks)
- Selecting households



Sample

Countrywide random sampling plus snowball sampling to catch more returned migrants (2011-2012 surveys)

Should include households with emigrants and non-migrant households.

For ideal case households surveys should be conducted both in all parts of a country and in selected regions with high migration turnover.



Surveys Measurement : Sampling errors

- Arise due to looking at a sample only, and not the entire population
- Decrease with sample size (though not proportionally)
- Can be reduced by adequate sample plan and accounted for by using weights (remember stratification and clusters!)



Surveys Measurement : non-sampling errors

- Random errors (are not a problem as they tend to cancel out with increasing sample size)

In contrast, all the following errors are systematic

- Coverage errors (e.g. interviewers miss households), faulty frame
- Errors related to questionnaire design (e.g. difficult questions) and data collection (e.g. interviewer bias)
- Respondent bias (e.g. sensitive topics , recall bias, incentives to understate or overstate)
- Processing mistakes

More problems and possible sources of error arise when the data are analyzed and derivative variables (for example household consumption) are calculated



Main output ratios

Households surveys

- cash/non cash ratio,
- Seasonal worker/migrant ratio

Customers' surveys in banks

- the share of non residents in non commercial transfers
- the share of capital transfers
- The share of direct investments

Survey of seasonal workers

- the share of services for seasonal workers
-



Conclusions

- Remittance statistics based on BoP data produced by national banks has limitations in what concerns characteristics of the flows and remittance senders/recipients, informal and in-kind remittances, as well as spending structure.
- HH surveys can fill in this information gap by obtaining the missing information directly from migrants and migrant households
- BoP remittance data and HH survey data should be considered as complementary rather than alternative sources.



Conclusions

- Using BoP statistics, development impact of remittances/dependency of economies on remittances can be calculated at the macro level (remittance share in GDP, etc.).
- HH survey allows to investigate the actual impact of migrants transfers on the receiving HH wellbeing, i.e. microlevel.
- Surveys can provide information about individuals and/or about transactions, whereas official BoP statistics focus on aggregate amounts.



Thank you for your attention

