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A Study on Determinants and Trends in Remittance Flows in Macedonia

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NBRM'S Disclaimer

The estimate of remittances inflows in this Study, based on the Survey conducted should be taken as indicative and considered as that of the authors.

The only authorized institution for compilation and dissemination of the official Balance of Payments Statistics is the National bank of the Republic of Macedonia. We hope that this research will contribute to its forthcoming official estimate of this highly sensitive for the compilation item of the Balance of Payments".

Cover Letter

To: **Mr. Aleksandar Sahov**
USAID BEA Project

CC: **Mr. Dimitar Bogov**
Vice Governor National Bank

Ms. Emilija Nacevska
Vice Governor National Bank

Date: February 2007

Dear Mr. Sahov,

I hereby submit the Third Draft version of the work, conducted under the auspices of the project “*RESEARCH OF DETERMINANTS OF AND TRENDS IN REMITTANCES IN MACEDONIA*”.

We have developed a simple financial programming model readily to use for forecasting and have use it to check the macroeconomic perspectives of the remittances. Also, we have analyzed the answers from the survey and have drawn important conclusions. Please, find attached also additional explanations from our partner IDSCS.

We are expecting comments from USAID BEA and the National Bank.

Yours sincerely,

Marjan Nikolov, MSc

President of CEA

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Executive summary

Remittances to developing and transition countries have grown dramatically over the past two decades and have generated considerable excitement in recent years over their potential to aid growth and development. The Republic of Macedonia is a case of a small economy that possesses relatively large diaspora community and receives large remittance inflows. There is considerable interest in the donor community as to whether these remittance inflows can be increased and their impacts on growth and development enhanced. This report seeks to define remittances appropriately in the Macedonian context, evaluate their size and importance to the economy, evaluate their macroeconomic and microeconomic impacts, and propose initiatives in light of this analysis to leverage remittances for developmental goals.

There is some confusion in the remittance literature over what a proper definition of remittances should be. We argue that remittances should be defined as the sum of flows from non-emigrant temporary workers and longer-term emigrants. Most remittance studies use data only on the latter and sometimes only on a portion of the latter. The official estimate of remittance inflows was \$181.45 millions of US \$ in 2006, whereas our alternative estimate equals roughly 301.8 millions of US \$. Therefore, the true importance of remittances to the Macedonian economy is much higher than the ratio of official remittances to GDP. In addition to shedding light on the size and importance of remittances in Macedonia, we believe that the insights gained on how remittance data are used will be useful to policymakers and donor community.

Evaluation of the economic impacts of remittances begins with a contemporary assessment of the costs and benefits of remittance transfers on the economy. The theoretical and empirical literature on remittances is extensive, and we review key debates on the economics of migration and remittances and the large body of evidence that has accumulated to date. Older views that remittances were undesirable due to their being spent primarily on consumption and thus acting as a drag on development seem to be no longer tenable. The “new theory of migration” argues that decisions on migration and remittances are made in the context of a household behaving rationally and taking collective decisions in the pursuit of individual interests. Thus, simplistic views that remittances lead to “excessive” consumption, import dependency, or “unproductive” investment in housing and land are no longer tenable. One implication of this is that there will be relatively high propensity to consume out of remittance flows, as they are perceived as permanent rather than transitory income. Remittances can thus be expected to enhance private consumption and capital accumulation.

The report concludes with a series of recommendations on initiatives that could be undertaken to enhance the knowledge base on remittances and their economic impacts in Macedonia, increase the supply of remittances and their allocation to uses facilitating growth and development, enhance linkages with the diasporan communities more generally, and coordinate donor activities.

1. Introduction

Labour migration and remittances have become increasingly important for many developing and transition countries in recent decades. In the case of Macedonia, labour migration has a long history, going back for a century or even more. Yet, remittance flows have ignited considerable interest within the academic and policy community in the last few years, as net private transfers in Macedonia increased from 565.75 Millions of EUR in 2003 to 923.07 Millions of EUR in 2006.

Despite the high level of remittances, little is known about the sources of remittances (or the main source countries of remittance transfers), the demographic and educational profile of senders and recipient households, the final use of remittance inflows (household consumption, investments or savings), the role of the formal financial sector, the link between remittances and financial development and the prospective trends.

Publicly-available details on how remittance transfers are compiled by national statistical authorities are also lacking. As with all countries and particularly transition ones, accurate estimation of Macedonian remittance flows is a challenging and difficult task due to a variety of factors. Many remitters use informal transfer channels and therefore, it is difficult to determine what part of transfers through formal financial institutions should be classified as remittances (income transfers).

Without proper survey data, accurate estimation of remittance flows and how they are impacting the economy is not possible. No surveys or other in-depth analyses have been conducted in Macedonia on this topic so far. Moreover, the link between migration movements and developments in remittance receipts has not yet been properly analyzed.

Therefore, the main objective of this project is to deepen the understanding of the:

- main sources of remittances in Macedonia,
- key determinants of remittance flows (push- and pull-factors),
- the channels through which remittances are transferred, and
- methodology employed by the official statistics on remittances.

This investigation of remittance flows in Macedonia encompasses: (i) balance-of-payments (or stability) perspective, which appreciates their vital role in mitigating the Macedonian trade deficit and their impact on the conduit of monetary and fiscal policy, (ii) growth perspective, mainly focused on the uses of remittance flows, and (iii) financial perspective, which considers the link between the remittances and country's financial development.¹ Moreover, the study provides an assessment of how remittances affect microeconomic and

¹ The empirical evidence from developing and transition economies suggests that remittances are complementary to the domestic credit to private sector, particularly, where the financial sector is not able to alleviate the credit constraints (see: Giuliano and Ruiz-Arranz, 2005).

macroeconomic variables and offers a number of policy-relevant recommendations to address their potential impact.

The project was implemented by the Center for Economic Analyses (CEA), whereas the survey was conducted by the IDSCS. The National Bank of the Republic of Macedonia is the direct beneficiary of the results from this project.

The document is structured as follows. The next section offers an introduction to the design and implementation of the survey methodology. The third section highlights a number of definitional and measurement problems, whereas the next one, discusses the main theoretical issues in the remittance literature with respect to their micro- and macroeconomic impact. The fifth section provides an analysis of the link between migration and remittances in Macedonia. The review of existing compilation practices for official remittance statistics is given in the next section. The seventh section elaborates macroeconomic perspective on private transfers and remittances, whereas the eighth presents the main results from the conducted survey is discussed in the fifth section. A number of policy-relevant conclusions are elaborated in the concluding section.

2. Survey Methodology: Design and Implementation

2.1. How the project was conducted

CEA developed a simple macro-model that included balance-of-payments historical trends and projections in order to determine the importance of remittances for policy making in the future. A survey was undertaken by a professional surveying agency IDSCS after the questionnaire was jointly developed by a working group consisted of members from CEA, IDSCS and the National Bank.

The aim of the survey was to collect information on the sources of remittance inflows to Macedonia, the channels through which they are sent, characteristics of remittance senders and recipient households, and final uses of remittance funds. In the development of the survey, the project team built on similar work conducted in other countries (e.g. a very successful survey on remittances in Moldova that was financed by the Open Society Institute Foundation in 2004, a remittance survey conducted in Armenia in 2006, etc.).

2.2. Survey Methodology

The remittances survey project is a specific public opinion research activity that required specific nation-wide representative samples that have been stratified according to specific demographic statistics. The project included two separate surveys targeting two different populations. The first survey targeted respondents that are receiving remittances from family members that are living abroad. The second survey targeted the senders of remittances i.e. respondents that are living abroad and are sending remittances to family members living in Macedonia. The sample was designed using the data for money transfer per regions in

Macedonia (received from NBRM) and making a test research on nation wide level to determine the size of economic migrants in different regions. The size of the sample of each survey took into consideration the specific needs of the research and included 1046 respondents for the population receiving remittances, and 200 respondents for the population sending remittances. The samples have been designed in accordance with the demographic profile of the project-related population in Macedonia.

The specific samples have been stratified by: gender, age, ethnicity, education and residence. Moreover, the respondents are also differentiated regionally and according to their family monthly salaries.

Data gathering was done using the "snow ball" method. The pool of respondents consisted of two target groups: (1) households with economic migrant (regardless whether they received remittances or not) and (2) senders of remittances that visited Macedonia over the summer 2007.

The polling has been conducted by a standing (experienced) group of fellow-researchers of IDSCS (students and graduates mainly from the area of social sciences). For the respondents of different ethnicity, the polling has been conducted on their mother tongues. A total of 32 pollsters and 4 controllers have been contracted.

2.3. Implementation of the Survey

The remittances survey has been implemented in the time frame of June –September 2007. Within this framework the IDSCS team has implemented the following monthly activities:

June

- Staff meetings with representatives from the National Bank of Macedonia and the Center for Economic Analysis
- Preparation of the survey questionnaire
- Preparation of a specific nation wide representative sample
- Preparation of survey materials
- Field organization (preparation of pollster network)

July

- Preparation and additional training of pollsters
- Survey implementation (data gathering)
- Field control conducted by the managing staff of IDSCS

August

- Survey implementation (data gathering)
- Field control conducted by the managing staff of IDSCS
- Data processing

September

- Data processing
- Submission of the final survey report

The implementation of the survey fulfilled the projected time frame without any significant problems. The data gathering process did not endure any delays and was completed on time. Having in mind the specificity of the sample, the survey witnessed higher response in the rural areas and smaller cities. Accordingly, the regions of Polog, Ohrid and Bregalnica have had the highest percentage of response.

3. Remittances: Definition, Measurement problems, and Importance to the economy

3.1. Definition of Remittances

Remittances are classically defined as *monetary funds sent by individuals working abroad to recipients in the country that they came from*. Underlying the definition of remittances are several theoretical considerations that should inform what monetary flows are included in it:

- *Who is the sender of the resources?* Remittances could include only funds from those working temporarily abroad, or also from those who have permanently emigrated and become legal residents of another country. We feel that funds sent from an individual or household in a foreign country to a household in Macedonia should be included in remittances, and the sender and receiver do not have to be part of the same family;
- *Who decides how the resources are used?* Funds should be counted as remittances only if the receiving household has full authority to decide on how the funds are used. This definition includes cases where the sender is part of the receiving household and participates in decision-making.

Our definition of remittances thus includes all funds sent by diasporan Macedonians, whether “new” or “old” diaspora, to households in Macedonia without the intervention of a third-party institution making decisions on amount and allocation (use) of funds. Humanitarian assistance is ruled out, because although it is sent to households and supports consumption, it is channeled through state or non-household institutions. In-kind household-to-household transfers should be excluded, despite the fact that recipient household presumably has influence over what is sent.

3.2. Measurement of Remittances

Different approaches are taken in different studies of remittances to defining and measuring remittance transfers.² Remittances are inherently difficult to reliably measure. Most analysts use official balance of payments (BOP) / central bank data on remittances that are usually constructed using data on wire transfer flows officially reported by financial-sector

² For instance, Swamy (1981) gives a comprehensive overview of how official remittances are measured and the problems of these estimates.

institutions. Remittance estimates derived from officially-reported wire transfers are widely regarded as underestimating actual remittance flows. We will refer henceforth to remittances not captured in official BOP statistics as informal remittances. The table below summarizes how two studies approached remittance measurement:

Table 3.1 - Approaches to remittance measurement

Paper and Country	Definition of “remittances”	Source of data	Method of calculation
Mellyn (2003), Philippines	“Total funds sent by individuals resident abroad to recipients in the Philippines through both formal and informal channels”	Formal flows: commercial bank remittance activity Formal + informal flows: data from Money Transfer Association on average value of US-Philippines transfer	Formal flows: value of commercial bank remittance activity Formal + informal flows: stock of overseas resident Filipinos times average transfer value from Money Transfer Association
Uruci and Gedeshi (2003), Albania	(not explicitly defined)	Official balance of payments data	“Difference between foreign currency coming in (goods and service exports, credits, FDI) and foreign currency going out (goods and services imports, foreign currency going out through the banking system”

These two cases describe classic situations for developing/transition countries. In the case of the Philippines, official BOP statistics do distinguish remittance flows and provide direct estimates of them but fail to capture a large informal flow. In the case of Albania, official data is so poor that remittances are not identified as a distinct category, and analysts are forced to estimate them as a sort of “grand BOP residual,” which is a very rough measure.

There is some confusion in the remittance literature on how remittances are actually measured in the BOP.³ There are at least two categories of monetary inflows that could conceivably comprise a proper measure of remittances. The first category is a measure of remittances made by a country’s residents temporarily working abroad, which we will call non-emigrant remittances. These are transfers sent by workers who do not become residents of the country in which they are temporarily working. Most definitions of remittances in the literature exclude these flows, probably because they are not considered to be transfer payments between long-term separated entities. Part of non-emigrant remittances do in fact consist of such transfer flows to the family in the home country, and part do not. A case can be made that even the latter flows should also be included in a definition of remittances that is meaningful from the viewpoint of economic theory.

Measurement of non-emigrant remittances in the BOP is done on the basis of recording the income that the workers earn and the expenditures that they make, and subtracting expenditures from income:

³ Discussion of recording remittances in official BOP statistics is based on Balance of Payments Manual (Fifth Edition), International Monetary Fund (1993.), taking into account the preliminary sixth edition of the BoP Manual, as well.

Table 3.2 - Non-Emigrant Remittance Accounting

Income or Expenditure Item	Where Is It Recorded in the BOP?
Income of non-emigrant workers	
Wages and salaries, other non-investment incomes	Recorded in “Income – Compensation of employees including border, seasonal and other workers” as a BOP credit (inflow)
Investment income derived from investments in host country	Recorded in “Income – Investment” as a BOP credit (inflow)
Expenditures of non-emigrant workers	
Personal expenditures (food, clothing, rent, etc.)	Recorded in “Travel – Business” as a BOP debit (outflow)
Tax and social payments to host-country government	Recorded in “Current Transfers – General Government” as a BOP debit (outflow)
Income – Expenditures	
This is the measure of remittance flows of non-emigrant workers	Should be recorded in the financial account of the BOP in “Reserve Assets” or some other appropriate category

Estimates of non-emigrant remittances could be formed by estimating worker incomes and expenditures through use of survey data on these workers. However, such data often does not exist or is not regularly collected, and the only observable, regularly-collectable data available is on money transfers made through the formal financial sector. Statistics authorities will back out an estimate of income and expenditures from the transfer data by multiplying it by given factors that are presumably derived from surveys or are “reasonable guesses.”⁴

The second category in the BOP that should be included in any definition of remittances is what we call **emigrant remittances**, which are remittances sent by people working in other countries who are classified as resident in those countries. For example, in the Macedonian case, these would be Macedonians working in Switzerland and other countries who have left Macedonia for more than one year and are no longer classified as being resident in Macedonia. Emigrant remittances are recorded in the BOP statistics as “Current transfers – workers remittances” as a BOP credit (inflow).⁵

The official estimate of remittances into Macedonia is an underestimate of the true flow. We make the following observations on the NBRM estimates of remittance flows:

- People sending money to Macedonia are using informal channels outside of the formal financial system. The NBRM estimates are nonetheless picking up at least some of these flows, because they rely on wire transfer and foreign exchange office data.

⁴ The IMF Balance of Payments Manual cites various factors that could be used.

⁵ It is important to note that some studies on remittances are misled by the somewhat confusing terminology used in the BOP statistics and treat only these inflows as remittances, as they are explicitly labeled “workers remittances.” However, these flows are often only a small part of the flows associated with temporary (non-emigrant) workers.

- In-kind remittance transfers of goods could also be included.

Another financial component that could be included in remittances is the stock of cash, other financial assets, and real property that emigrants who return to Macedonia bring back with them. Statistical authorities recognize that in practice, this flow is difficult to monitor.⁶ Although migrant transfers are not a transfer from one household member to a different member, they originate in income earned abroad and are used to finance consumption and investment of the household in the home country. In the case of Macedonia, it is not clear that statistical authorities regularly monitor emigrants' return and the net wealth that they bring with them.

3.3. The size of shadow economy and remittances: Comparing Macroeconomic Apples and Oranges

Our review of macroeconomic performance and the importance of remittances is based on comparisons of official macroeconomic data. It is tempting to use alternative estimate of remittance flows to evaluate the true importance of remittances to the economy. However, making a ratio of this estimate to GDP might give a misleading picture of remittance importance, because it might be comparing macroeconomic "apples and oranges." In order for the ratio to be accurate, GDP must be fully adjusted to capture the shadow economy. More generally, in comparing macroeconomic variables, it is important that the variables capture their shadow sectors to roughly the same degree. Official data have the merit of being internally consistent. To compare an alternative estimate that fully captures its relevant shadow sector to an official estimate that only partially captures its shadow sector may produce a much more inaccurate picture than if one compared official estimates.

Table 3.3 illustrates this point with three hypothetical scenarios. In scenario A, the share of the shadow sector for both remittances and GDP is 50%. The ratio of official remittances to official GDP is equal to the ratio of actual remittances to actual GDP. This illustrates an important general point: if the relative sizes of unmeasured shadow sectors are identical across macroeconomic aggregates, then ratios of official values are identical to ratios of actual values, and it is not necessary to adjust for the shadow sectors in order to measure the relative importance or weight of various aggregates. If, however, the relative sizes of the shadow sectors differ, then adjustment will make a difference to the ratio. Scenarios B and C show that if the remittance shadow sector is relatively larger or smaller than the GDP shadow sector, the ratio of official measures understates or overstates the importance of remittances in the economy respectively.

⁶ See **Balance of Payments Manual (Fifth Edition)**, International Monetary Fund (1993), p.84, paragraphs 352-355 for a full discussion of migrants' transfers.

Table 3.3 - Size of shadow economy and remittances

		Official value	Official + shadow	Share of shadow sector:	Off rem./ Off GDP	Total rem./ Total GDP	Total rem./ Off. GDP	Off. Rem./ Total GDP
A	Remittances	5	10	50%	10%	10%	20%	5%
	GDP	50	100	50%				
B	Remittances	5	10	50%	10%	13%	20%	7%
	GDP	50	75	33%				
C	Remittances	5	10	50%	10%	8%	20%	4%
	GDP	50	125	60%				

This point is relevant to the remittances literature, as the indicator most often used to assess the importance of remittances in an economy is the ratio of remittances to GDP. For example, it is often noted that in many sub-Saharan African countries, remittances are poorly measured and often have very large shadow sectors. However, GDP will also typically be under-measured and have a large shadow sector. The ratio of the official values of remittances and GDP will understate the actual importance of remittances if the shadow sector for remittances is relatively larger than the shadow sector for GDP.

The most common measure of the importance of remittances to the economy that is used in the remittance literature is the ratio of official “workers’ remittances and compensation of employees” to GDP, which was 3.92% for Macedonia in 2005. This is low number, and yet it corresponds to what one often sees in the literature. We have shown that one needs to be very careful in constructing a measure of remittance inflow into a country even using only official data.

3.4. Informal-Sector Remittance channels

Informal channels come in several forms. Remittances are brought to families by the remitter, either during visits (emigrants) or upon return from temporary work abroad (non-emigrants.) Other family members or friends can bring them back. This is particularly more likely when dealing with gifts sent by diasporan families. Economies of scale can be realized through one person bringing back remittances for several families.

Individuals wishing to send money may also use couriers, and this money may move informally. These are usually some variations of the informal fund transfer (IFT) systems such as *hawala* that are common for remittances to Islamic countries. Such informal systems

were first developed for trade finance “because of the dangers of traveling with gold and other forms of payment on routes beset with bandits”:⁷

“The system is swifter than formal financial transfer systems partly because of the lack of bureaucracy and the simplicity of its operating mechanism; instructions are given to correspondents by phone, facsimile, or e-mail; and funds are often delivered door to door within 24 hours by a correspondent who has quick access to villages even in remote areas. The minimal documentation and accounting requirements, the simple management, and the lack of bureaucratic procedures help reduce the time needed for transfer operations.”

When informal channels are used, it might be optimal from an individual viewpoint, but it nonetheless imposes costs on society as a whole:

- Funds sent through informal channels never enter the banking system and thus reduce the probability that they will be made available for intermediation. The major reasons for why funds are not kept in the banking system are perceived financial and taxation policies and lack of confidence and trust in the banks, not usage of informal transfer channels. Nonetheless, increasing use of the formal sector to channel funds will increase the level of intermediation on the margin;
- Most remittances are household-to-household transfers and often move in cash physically over borders, and there can be no question of laundering in these cases. Use of *hawala*-type IFTs could cause some concern, but we could not detect many instances where families were using this type of transaction. Money laundering through the formal financial sector is of more serious concern in Macedonia today;
- Use of informal channels inhibits the ability of the National Bank of the Republic of Macedonia to measure the presence of foreign exchange in the system. This complicates the conduct of monetary and stabilization policies. Remittance influges are not likely to be steady, either seasonally or annually, and not having accurate data on their flows makes exchange rate-based management of monetary policy more difficult.

A key theme that pervades discussion of the Macedonian financial system is the question of trust – in the formal financial system, in IFT systems, in families, and in government. Informal survey participants constantly stressed that they did business with individuals they trusted. In other words, the reason that people do not transfer money through the formal sector has little to do with cost and everything to do with trust. Having said this, there is ample evidence that trust in the formal financial system of Macedonia, at least with respect to remittance transfer, is increasing.

The fear of improper information disclosure is another issue. There might be a strong desire among Macedonian transferors for privacy, to avoid both taxes and the prying eyes of

⁷ “*Hawala*: How does this informal funds transfer system work, and should it be regulated?” *Finance and Development* 39, December 2002. Online at: <http://www.imf.org/external/pubs/ft/fandd/2002/12/elqorchi.htm>.

neighbors. There is concern, however, that on an informal basis, information is sometimes passed between bank employees and government agencies.

4. Economic Impacts of Remittances: An Overview

4.1. Growth-conducive or growth-neutral effects?

Consensus views on the impact of migration and remittances on the sending countries have been subject to cycles of pessimism and optimism. In the early 1990s, for example, the general pessimistic view was that remittances do not promote growth but “exacerbate the dependency of sending communities by raising material expectations without providing a means of satisfying them, other than more migration. Individual families attain higher standards of living, but communities achieve little autonomous growth.”⁸ Some analysts went so far as to advise governments and donors to discourage migration and remittances.⁹ There has been a sea-change in recent years in the consensus view, and currently there is a great deal of excitement about the potential of remittance inflows to support growth and development. This is due partly to the fact that remittance flows to developing and transition countries have become so large, and partly because the theoretical understanding of remittances has changed. Although the consensus view on remittances has become quite positive, the questions that led to skepticism in earlier years remain open, and there is as yet no decisive answer to whether remittances facilitate or hinder growth and development.

Contemporary views on the economic benefits and costs of remittances to a receiving country can be summarized as:¹⁰

Table 4.1 - Potential benefits and costs of remittances

Potential Benefits	Potential Costs
Are a stable source of foreign exchange that ease FX constraints and help finance external deficits	Ease pressure on governments to implement reforms and reduce external imbalances (moral hazard)
Are potential source of savings and investment for capital formation and development	Reduce savings of recipient families and thus negatively impact growth and development (moral hazard)
Facilitate investment in children’s education and human capital formation	Reduce labor effort of recipient families and thus negatively impact growth and development (moral hazard)
Raise the standard of living of recipients through increasing consumption	Migration leads to “brain drain” and negative impacts on economy that are not fully compensated by remittance transfers
Reduce income inequality	Increase income inequality
Reduce poverty	

⁸ Durand et al (1996), p.249; Adams (1991), p.695.

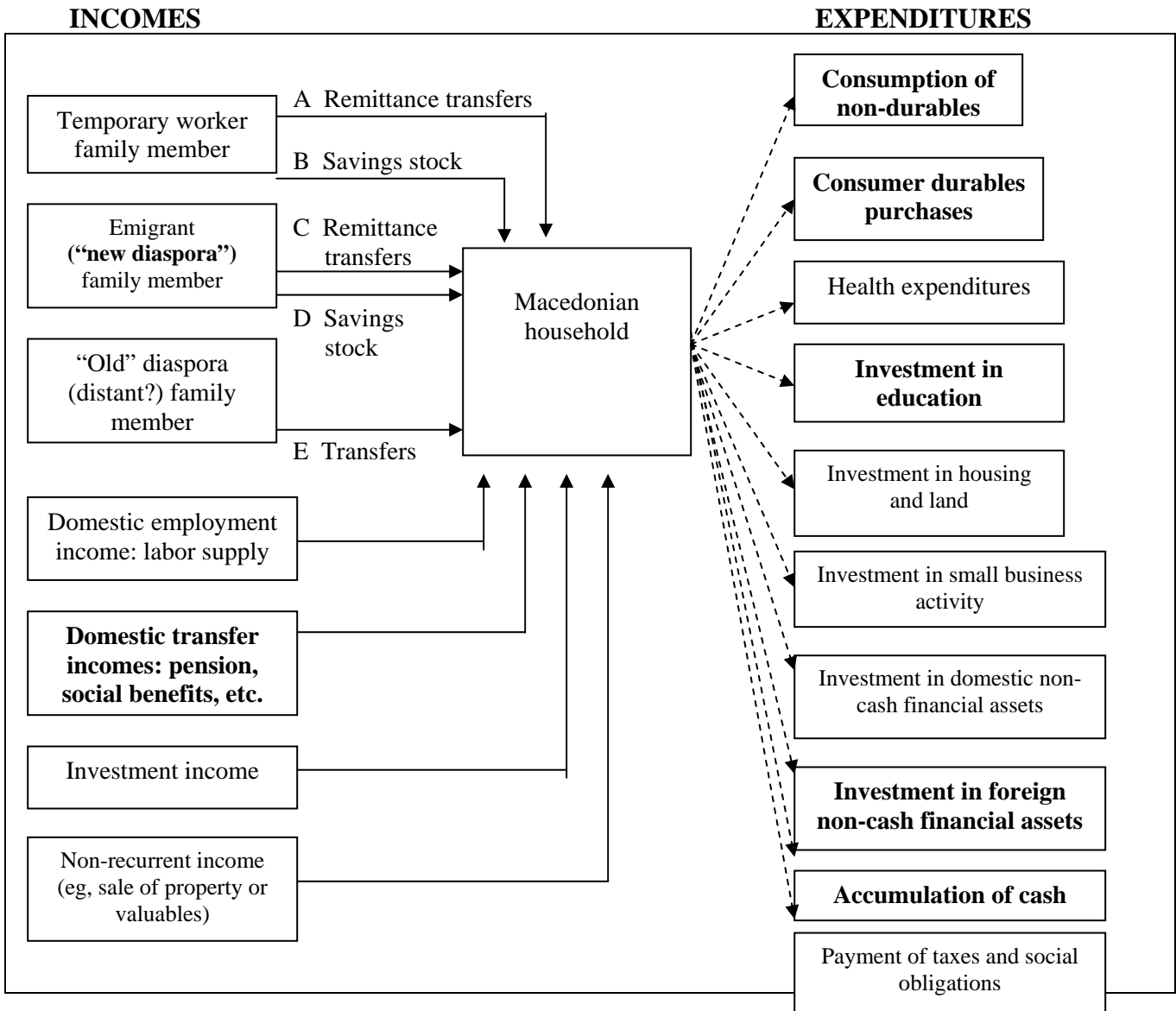
⁹ Cuthbertson and Cole (1995) as cited in Brown (1997), p.623.

¹⁰ Russell (1986) provides a table summarizing earlier views on remittance costs and benefits.

As will be discussed further below, in recent years a view has emerged that migration and remittances are outcomes of the decisions of families that are behaving optimally given the opportunities and constraints that they face. Simplistic views that remittances lead to “excessive” consumption, import dependency, or “unproductive” investment in housing and land are no longer tenable. The potential costs of remittances are now viewed as largely deriving from moral hazard problems. Remittances could ease pressure on governments faced with large external deficits to engage in difficult structural reforms. They also could negatively impact labor effort and savings and investment of recipient households, even if the remittance sender wants the family to work hard or save and invest.

4.2. Remittance Flows and Household Use

The following figure places remittance flows and their use in the context of the complete picture of incomes and expenditures of Macedonian household:



Even this figure is only partial. It does not show how uses of remittances for investment purposes stimulate economic activity that affect the household's domestic employment income, the affects of paying higher taxes, etc. Ideally, analysis of migration and remittances would be conducted in the context of the household embedded in a model of the entire economy. In practice, this is very difficult. Few studies have been so ambitious to attempt a "general equilibrium" analysis, and those that have must make some simplifying assumptions so as to maintain mathematical tractability or consistency with available empirical data. Studies on remittances usually restrict their attention to a particular subset of the household choice problem.

4.3. Emigration and Remittances: Competing Models of Behavior

One of the key questions that is apparent from the above figure is how decisions on emigration and remittances are made within a family. In particular, what are the motivations and constraints faced by those who emigrate and those who stay, and how do these motivations and constraints result in household decisions and economic outcomes? A traditional view is that family members migrate because they have better income opportunities abroad, and once they begin to earn that income, they share it with their family members for altruistic motives. The primary determinant of migration is thus wage differentials, and the primary determinant of remittances is altruism. Recent research (Chami et al, 2003) has emphasized a potential problem that can arise in altruism-based decision-making due to the fact that the emigrant sending remittances cannot know for sure to what extent the recipient is trying to earn labor income or is properly investing remittances as opposed to spending them on consumption. This "moral hazard" problem has the implication that remittances can have a negative impact on longer-run growth.

Another approach that has been called the "new theory of migration" assumes that families make migration decisions similar to the way that investors develop a portfolio of assets.¹¹ Remittances are viewed as a part of a family's "self-enforcing, cooperative, contractual arrangement."¹² Family members are sent abroad to work in order to maximize household earnings and reduce its risk of fluctuations. Households thus pool individual member incomes and take decisions as a collective unit. By pooling incomes, they can smooth individual members' consumption over good and bad times. Families often have good methods of enforcing implicit contracts through altruism, inheritance decisions, and maintenance of investments of the emigrant in the home country.

Empirical research has been carried out over the past 30 years on both the decision of a migrant worker to remit or not remit, and the size of a remittance if the worker does remit. Banerjee (1984) finds that factors that determine the decision to remit differ from those determining the size of a remittance, education and income are not important in the decision to remit but positively affect the size of a remittances, the presence of a wife in the family to

¹¹ See Lucas and Stark (1985) and Stark and Lucas (1988) for rich descriptions of this theory using Botswana as an example, and Stark (1991) for a more concise description.

¹² Stark and Lucas (1988), p.465.

which remittances are sent increases the likelihood of remittance, and the likelihood of remittances is greater the higher the dependency burden in the rural household. Knowles and Anker (1981) find that the decision of emigrant to remit depends directly on the likelihood that they will have to return at some point to their home, whereas the amount remitted depends on income. Hoddinott (1994) treats the decision to emigrate and remit as outcomes resulting from a bargaining agreement between the migrant and family (altruism is ruled out) and finds empirical results that generally favor the non-altruistic approach. Education and income of migrant are positively associated with remittance size. Ilahi and Jafarey (1999) use data on roughly 1000 Pakistani migrants to show that remittances made by migrants rose in proportion to the loan obligation that they had incurred with their family to finance emigration costs, additional evidence in favor of the “new theory of migration.” Brown (1997) uses data on Pacific island households to show that migrants make remittances for reasons of self-interest, in particular asset accumulation and investment back home, and that remittances do not “decay” with the length of time that an emigrant has been abroad. This is direct support for the “new theory of migration.”

The empirical evidence generally supports the “new theory of migration.” This is encouraging to those who believe that remittances can play an important role in growth and development, because it implies that migrants are motivated to make remittances out of self-interest and in particular to save and accumulate assets in their home country.

4.4. Use of Remittances: Consumption versus Investment

Use of remittances is an important question for assessing whether remittances promote growth and development. Several studies have empirically assessed the degree to which remittances are spent on consumption or investment:

Table 4.2 - Final uses of remittances: Survey of empirical literature

	Adams (1991) (Egypt)	Glytsos (1993) (Greece)	IOM (2003) (Guatemala)	Gilani et al (1981) (Pakistan)
Consumption	na	62.6%	61.8%	62%
Non-consumption	na	37.4%	38.2%	38%
Of which:				
Housing	56.3%	59.6%	28.7%	58% ^C
Land	20.5%	19.3%		
Machinery	7.9% ^A	10.6%	32.6% ^B	30% ^C
Shops (trade)	3.1%	10.6%		
Marriage	8.9%	-	-	8%
Financial savings	-	-	38.7%	4%

Basis of estimate: Adams– 75 rural Egyptian households; Glystos – combination of a variety of data described in his appendix A; IOM – 1425 households surveyed; Gilani et al – survey of migrant Pakistani households.

A : Excludes consumer durables, except for automobiles.

B : Includes purchases of intermediate business inputs, agricultural inputs, and livestock, and repayment of business loans.

C : Percentages spent on real estate and real assets, respectively

This evidence suggests that the propensity to save out of remittance income is high (almost 40%) and remarkably consistent across studies, and that investment is primarily in housing and land, and secondarily in business activity (machinery and shops.)¹³ Swamy (1985) summarizes evidence from other studies showing even higher marginal propensities to save (pp. 36-7.) There is considerable evidence that migrants often save out of their overseas earning for the purpose of coming back into their home country with a nest egg for investment either in a business or for a home. Taylor (1992) finds in a sample of rural Mexican families that remittances are associated with an increase in livestock investment. Sofranko and Idris (1999) find in a sample of 170 small-town Pakistani families that 32% used remittance income to finance business investments (start-up or expansion of shop or other small business), and 13% of total remittance income was spent on this purpose. Korovilas (1999) argues that many Albanian small businesses were formed after their owners had worked for some time in northern Greece. Woodruff and Zenteno (2001) find that 20% of investment in micro-enterprises, or \$1.85 billion, had been paid for by workers' remittances in forty-four urban areas in Mexico, confirming previous research by Massey and Parrado (1998).

It seems natural to assume that an increase in remittances would increase consumption, but the question is by how much. According to the permanent income hypothesis, an increase in income will increase consumption more, the more reliable or less volatile is the source of that income. Households will save more when income is more volatile. Adams (1991) finds in a sample of Egyptian households that migrants saved most income earned abroad, regarding it as temporary as opposed to permanent income; 54% of remittance earnings were spent on housing construction and repair; and almost all other investment was purchase of agricultural or building land. Adams (1998) finds in a panel dataset of rural Pakistani families that there is a higher marginal propensity to invest out of remittance income than other income, again indicating that remittances are viewed as temporary income. He also finds that the Pakistani families were significantly more likely to invest out of external remittance income than internal remittance income. Adams (2002) studied the precautionary saving behavior of Pakistani households in response to income from seven different sources. His results indicate that remittances are seven times more likely to be saved than income from renting land. Puri and Ritzema (1999) review the evidence for a variety of Asian economies and conclude that marginal propensities to consume from remittances are small: "It is quite possible that migrant families consider remittances only as a transitory income and tend to save as much as possible."

The empirical evidence suggests that remittances are often perceived as transitory income, and the marginal propensity to save from remittances is very high. We can conclude that remittances do promote investment. However, investment is usually made into real assets such as housing, land, and shops rather than formal-sector financial instruments. This may

¹³ The IOM study suggests that Guatemalan households save a high proportion of remittances into financial assets. There may be differences across these studies in definition and coverage of categories.

reflect poor development of financial markets and institutions and/or lack of access of many remittance-receiving families to the financial sector.¹⁴

In the case of Macedonia, we can distinguish between several types of remittance flows that appear in figure 4.2 above:

- **Flow A:** remittances from temporary workers. These are likely to be devoted almost exclusively to financing Macedonian household consumption.
- **Flow B:** savings brought back by temporary workers. Given evidence from other countries, the propensity of the household to save out of this flow is high. Savings are devoted mostly to investment in housing and land.
- **Flow C:** remittances from emigrants (“new” diasporans). If this flow is stable enough to be considered by the household as a form of recurrent income, then it will be devoted largely to consumption. The more irregular these transfers are, the greater the propensity to save from them. These remittances may “decay” (decline over time) the longer the emigrant has left Macedonia.
- **Flow D:** savings brought back by returning emigrants. The propensity of the household to save out of this flow is very high. The amount that an individual returnee brings back is likely to be substantial, but in aggregate they are probably not very significant given a low return rate of emigrants. This flow is measured in the BOP as migrants transfers;
- **Flow E:** remittances from “old” diaspora relatives. These relatives will often be distant. Household use of this flow will again depend on whether it is fairly regular or intermittent, with the propensity to save rising with the degree of irregularity. Remittances from old diaspora relatives are likely to be significantly more irregular than remittances from new diaspora emigrants.

4.5. Labor Supply, Education, and the Brain Drain

A key question concerning remittances is whether they impact the labor supply of household members who do not emigrate. Remittances could lower labor supply by enabling family members to enjoy leisure. They could also lower labor supply by permitting family members to be educated. These two impacts have very different implications for growth and development. The empirical evidence that is available suggests that remittances have both effects. Itzigsohn (1995) finds that for households in four Caribbean Basin countries (Haiti, Jamaica, Guatemala, and Dominican Republic), receipt of remittances lowers the probability that the head of the household will participate in the labor market, possibly indicating an increase in leisure. Ahlburg (1991) finds that labor force participation of American Samoans receiving remittances is lower than that of those not receiving remittances. The limited evidence available suggests that remittance receipt lowers labour effort of household adults.

¹⁴ An interesting, and exceptional, situation is that of Albania in the mid-1990s. Korovilas (1999) argues that remittances were the main source of the high growth experienced in Albania prior to 1998, and that remittances fueled the pyramid schemes whose collapse brought an end to that growth.

On the other hand, Edwards and Ureta (2003) find that remittances play an important role in keeping children in school and thus financing human capital accumulation. Using data on a sample of 8387 families in El Salvador, they find that in rural and (especially) urban areas, receipt of remittances substantially reduces the hazard rate of a family's child leaving school, and the impact of remittances is much greater than that of other types of income.¹⁵ Hanson and Woodruff (2003) find that Mexican children in households with an emigrant working abroad complete significantly more years of schooling. Yang (2004) shows that remittances reduce child labor supply. Swamy (1985) summarizes evidence from the Phillipines that households sharply increased spending on education after starting to receive remittance income (pp.40-41.)

These findings suggest that remittances might have a negative impact on labor supply of older family members beyond schooling age, but that they have a positive impact on keeping children in school. A major issue for developing countries that has received much attention over many decades is the "brain drain," or the emigration of better-educated, higher-skilled workers to richer countries and its impacts. Assessing the impacts of brain drain in detail is outside the scope of this study. A recent overview paper argues that "[a]ccording to most existing studies, it is unlikely that remittances, return migration or other ways through which highly-skilled emigrants continue to impact on their home country's economy are significant enough to compensate sending countries for the losses induced by the brain drain."¹⁶ Although emigration is not always permanent, and some emigrants return and invest in the economy, bring back skills learned abroad, and possibly create trade networks between host and home countries, the evidence appears to be that emigration losses to the labor supply are not compensated by an increase in remittances or these other possible positive externalities.

4.6. Short-Run Macroeconomic Impacts

Traditionally, analysis of the short-run macroeconomic impacts of remittances focused on their multiplier impacts. A range of estimates were developed for different countries. Glytsos (1993), for example, estimates a multiplier of 1.7 for Greece. The impact of remittances on external balance and exchange rates also received attention. Remittances will undoubtedly improve the current account of a country, providing it with a source of foreign exchange. This will be less true in a dollarized economy, but otherwise household purchases of remittance recipients are most likely to occur in the local currency.

Considerable attention is now given to the impact of remittance flows on short-run macroeconomic stability. A remittance inflow will typically lead to an appreciation of the local currency. In this sense remittances are analogous to increases in private or public foreign capital flows. However, some of the inflow of remittances will flow back out through imports, particularly if domestic production is unable to expand sufficiently (with goods people want to buy.) Just as exporting natural resources can induce "Dutch disease" by making the country's manufactured goods less competitive and inducing a persistent trade deficit, so too

¹⁵ They show, for example, that a child in 7th grade in a family receiving a remittance of \$100 per month is 25% less likely to drop out of school.

¹⁶ Docquier and Rapoport (2004.)

can exporting labor lead to a trade deficit. This is particularly true when remittances lead to higher inflation because they are used to purchase non-tradable goods. Dutch disease is particularly harmful for families that do not receive remittances. Remittances also relieve pressure on central banks to defend currencies from speculative attack, allowing interest rates to be lower and capital formation higher. Neyapti (2004) has shown that the flow of remittances into developed countries is more stable than foreign direct investment, but the same cannot be said for less developed countries.¹⁷ This is likely due to frequent shifts in economic conditions in the recipient country. This calls into question one of the benefits of remittances – that they are more certain as a source of foreign exchange.

4.7. Longer-Run Impact on Growth and Development

Research on the impact of remittances on longer-run growth and development is scarce. On the one hand, remittances do increase investment in physical and human capital. On the other hand, remittances are unrequited transfers and introduce moral hazard problems that can negatively impact labor supply, investment, and government policymaking. An important recent study by Chami et al (2003) develops a theoretical model of remittances and labor supply in which moral hazard is present and show that remittances should be countercyclical and can have a negative impact on economic growth. They then analyze a panel dataset spanning 113 countries during the period 1970-1998 and show that empirically, remittances are countercyclical and impact growth negatively. This is an important finding, but more research is needed. The remittance data that Chami et al use apparently includes only the BOP category labeled “workers’ remittances.” As we have shown in section 2, this is in fact only one component of what should be considered as remittances from the viewpoint of growth and development. Leaving out non-emigrant (temporary worker) remittances is of particular concern, as most countries with significant “workers’ remittances” will have significant non-emigrant remittances. It will also be useful to carry out direct examinations of whether remittances reduce labor effort. Within this study, it is premature to make any conclusions about the longer-run impact of remittances on growth and development.

4.8. Impacts on Poverty and Inequality: Overview

The impact of remittances on poverty and inequality has been empirically researched for a long time. Under plausible assumptions, remittances will theoretically reduce poverty. In a recent study using panel data on 74 developing and transition countries, Adams and Page (2003) find that remittances have a strong, statistically significant impact on reducing poverty. This impact comes from both increasing the average level of income and making income distribution more equal.¹⁸

Theory does not give firm predictions on whether remittances can be expected to increase or decrease inequality. The simplest way to empirically evaluate remittance impact on inequality is to evaluate tables showing distribution of total income and remittance income across decile

¹⁷ Bilin Neyapti, “Trends in Workers Remittances.” *Emerging Markets Finance and Trade*. 40(2), March-April 2004, pp. 83-90.

¹⁸ As in the case of the Chami et al (2003) study, the remittance data used in this study apparently include only “workers’ remittances” and not non-emigrant remittances or remittances included in “other private transfers.”

or quintile household groups. Adams (1998) evaluates quintile income group tables for a sample of 469 rural Pakistani households, finds that the richest families benefit disproportionately from remittance flows, and concludes that this is so because of the high costs of migrating to external labor markets. A more sophisticated way to approach this question is to calculate inequality measures for household incomes excluding remittance income and including remittance income: if the inequality measure falls when remittance income is included, then they reduce inequality. Several studies have applied this methodology to household income data obtained from surveys.

The most sophisticated way to assess remittance impact on inequality is to develop a counterfactual baseline scenario that describes what emigrants would have done in their home country if they had not emigrated. Adams (1989) compares Gini coefficients on actual household income and a no-migration counterfactual alternative and finds that external remittances increased income inequality for a sample of 1000 Egyptian households because the richest families benefit disproportionately from remittance income. Barham and Boucher (1998) develop an even more sophisticated no-migration counterfactual scenario using data from a survey of households in Nicaragua. They find that if one simply excludes remittances from income and does not develop a no-migration scenario, the Gini coefficient rises, so that remittances reduce inequality; but if their no-migration scenario is incorporated, the Gini falls, so that remittances increase inequality. This shows how important including a no-migration scenario can be.

Other subtleties come into play when assessing remittance impact on inequality. Jones (1998) argues that migration's impact on inequality will change over time, because migration goes through distinct stages: innovator stage (only most ambitious and adventuresome people positively selected from families already well-off), early adopter phase (migration diffuses down the income distribution and reaches a large group of families), late adopter phase (community stratifies into a better-off migrant class and non-migrant class.) Stark et al (1988) carry out Gini coefficient analysis that supports Jones' contention. They apply a very useful decomposition of the Gini coefficient to data on 61 households in two Mexican villages and conclude that "the impact of migrant remittances on (recipient village) income distribution depends critically on the degree to which migration opportunities of different types become diffused through a village population, as well as on the returns to human capital embedded in migrants' remittances and on the distribution of potentially remittance-enhancing skills and education across village households." (p.319)

5. Migration and Remittances in Macedonia

5.1. Overview of historical trends in independent Macedonia

Macedonians have long tradition of migrations. Although the most popular destinations are recognized, the number of emigrants living abroad seems to be unknown. Official statistics are incomplete and only indirect estimations are available. For instance, the IMF (2006) report states that the rough estimations give the figure of half million of Macedonians living abroad, which would represent 20-25% of population. The size, demographic profile and duration of emigration significantly affect the conduct of domestic macroeconomic policy, simply because they are conditioning factor for the level of remittance inflows.¹⁹

According to the National Bank data for 2006, net inflows of remittances were 144.7 millions of EUR, whereas net inflows of remittances and compensation of employees were 273.6 millions of EUR. The latter category of private transfers financed roughly 10 percent of the imported goods (f.o.b. basis) and provided 27.2 percent of the financing the average trade deficit during 2003-2006 (Table 5.1 and Chart 5.1).

Table 5.1 - Workers' remittances and compensation of employees in relation with selected macroeconomic variables

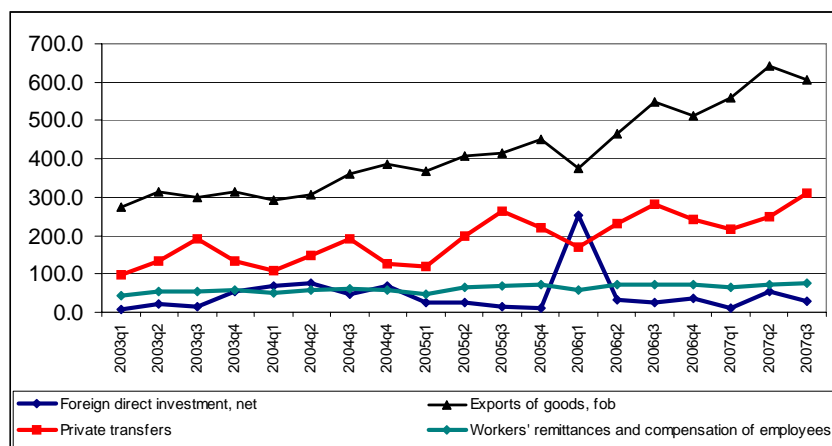
Workers' remittances and compensation of employees	2003	2004	2005	2006	Average
In percent of imports of goods (f.o.b.)	10.7	10.0	10.1	9.4	10.1
In percent of FDI, net	209.4	87.3	337.7	79.4	178.5
In percent of official transfers	234.7	408.7	473.8	465.8	395.8
Share in financing the foreign trade deficit (f.o.b.)	27.85	24.79	29.47	26.81	27.23

Source: Authors' calculations based on NBRM data.

Despite the observed volatility of net capital inflows, on average, the amount workers' remittances and compensation of employees was 78.5% higher in comparison with net FDI inflows in the analysed period. Moreover, these inflows were nearly 4 times larger than the official transfers in Macedonia during 2003-2007.

Chart 5.1 - Selected balance-of-payments categories, 2003-2007 (quarterly data)

¹⁹ Remittances are defined as money earned or acquired by non-nationals that are transferred back to their country of origin



Source: NBRM.

The World Bank methodology uses broader definition in terms of workers' remittances, compensation of employees and migrant transfers. In the case of Macedonia, the migrant transfers are included in the cash exchange. Since this category includes also payments for unrecorded trade and services, the realistic estimate of migrants' transfers is somewhere within this range.

Remittance inflows have steadily grown, with the important exception of the periods of political instability. Hence, remittance flows have not been sensitive to the phase of economic cycle. On the other hand, the cash exchanged seems to be pro-cyclical, which could indicate high share of inflows from the underground economy. Yet, one must bear in mind that figures represent only officially recorded remittances, which significantly underestimate the true magnitude of these transfers. The World Bank study suggests that remittances sent through informal channels could add at least 50% to the official estimates (World Bank, 2006a).

Lastly, a noteworthy aspect is that the OECD statistics classifies Macedonia among the top 30 remittance-recipient developing countries for 2002. Yet, the operational definition of remittances refers to the sum of the "compensation of employees", "worker's remittances", and "other current transfers in other sectors".

Table 5.2 - Top 30 developing countries with the highest remittances received, In percent of GDP, 2002

Country	Remittances as % of GDP	Country	Remittances as % of GDP	Country	Remittances as % of GDP
Tonga	41.9	Albania	15.6	Uganda	9.2
West Bank and Gaza	36.7	Macedonia	15.2	Guatemala	8.9
Lesotho	25.8	Nicaragua	14.6	Pakistan	8.9
Jordan	24	El Salvador	14.5	Morocco	8.8
Cape Verde	23.3	Republic of Yemen	12.5	Georgia	8.3
Moldova	22.8	Dominican Republic	11.7	Sri Lanka	7.9

Vanuatu	18.4	Ghana	11.3	Latvia	7.5
Bosnia and Herzegovina	18.4	Armenia	11.2	Sudan	7.2
Guyana	18.2	Honduras	11.1	Ethiopia	6.8
Jamaica	16.7	Philippines	9.9	Bangladesh	6.6

Note: "Remittances" refer to the sum of the "compensation of employees", "worker's remittances", and "other current transfers in other sectors".

Source: OECD, 2006. Bases on IMF, *Balance of Payments Statistics Yearbook*, 2003; World Bank, *World Development Indicators*, 2003.

In conclusion, the official statistics is still facing substantial empirical challenges in estimating the "true" remittance inflows.

5.2. Emigration stock

The population census conducted in 1994 provided 159,548 citizens of Macedonia staying abroad. This census had some weaknesses. It was conducted in 23 countries only. It could not be conducted in the Federal Republic of Yugoslavia, thus only insignificant number of persons from this country was covered.

The next census conducted in 2002 applied different methodology. Based on interviews with the households it brings the amount of 22,995 people staying abroad up to one year and another 12,128 staying longer. These data measure different things and are not comparable with the previous census results.

These figures could be cross checked with external sources. The best is the OECD database on population born in Macedonia living abroad in OECD countries based on last available population census. The total amount is equal to 193,940 persons (Table 1 from the Annex). In this dataset statistics on emigrants in Germany are missing. Based on Federal Statistical Office in Germany we found the number on Macedonian emigrants of above 50 thousands (Table 2 from the Annex). Another group is population of Macedonians living in former Yugoslav countries. Some data on this group are presented in Table 3 (Annex), which indicates Macedonians living abroad, but not citizens of Macedonia. This group is extended by Macedonians living in two neighboring countries: Bulgaria and Albania. Serbian official statistics do not cover Kosovo, so this is a missing figure. Summing up all these figures we estimated the stock of emigrants at about 300 thousands – this is 15% of the population and 34% of the labor force.

All these numbers are outdated as their sources are mainly censuses conducted 5-6 years ago and during this time the emigration continues. Moreover, they refer to officially registered migration only.

Australia and Turkey are two countries with majority of Macedonian immigrants having local citizenship (92% and 96% respectively). It indicates that this migration has long term origins. Looking at two other popular destinations, namely Austria and Switzerland only 15% and 4% have local citizenship indicating recent flows of Macedonian migration to these countries. The share of Macedonian immigrants with high education is limited, with the exception of Australia (19.9%), whereas in Austria 2.8%, Turkey 4.3% and Switzerland 3.6%. Among the newcomers, who have not local citizenship the share of those with higher education is in

Austria 2.4%, Turkey 8.9% and Switzerland 3.4%. Based on these numbers one may conclude that emigration to these countries does not allow to increase the education level and in the case of Turkey the new emigration flow is more educated than the previous migration waves.

For presentational convenience only, the next table provides an overview of different estimates of Macedonian emigration stock, which varies from 35,123 (Macedonian census, 2002) to 193,940 emigrants (source: OECD).

Table 5.3 - Different estimates of Macedonian emigration stock

Source	Estimated emigration stock (number of emigrants)
OECD statistical database	193,940
World Perspective, Université de Sherbrooke, Canada	121,400
Macedonian census 2002	35,123
Macedonian census 1994	159,548

5.3. Emigration flows

Despite severe constraints on traveling (visa regimes to majority of countries), one could observe permanent flow of Macedonian emigrants. This is not a new tendency, as experience of living in former Yugoslavia allowed for higher internal migration across that country. Business and private relations still existed after the Yugoslavia break up facilitating migration flows to the countries in the region. Macedonians have also migrated to other countries and the most popular destinations are Germany, Australia, Switzerland Italy, USA and Canada. The poor economic performance in the 1990s, Kosovo crisis and 2001 internal security crisis increased the number of emigrants and asylum seekers.

The estimation of flows is conducted on official data by the State Statistical Office, collected by the Ministry of Internal Affairs (Table 4 in the Annex). The net flow of international migration is positive, which means that due to immigration, the population of Macedonia should be growing. The sample limited to the citizens of Macedonia supports this trend: for a last few years Macedonians were mostly coming back instead of emigrating. The exemptions are last two years when the emigration of Macedonians increased. Still, these are not large figures – the outflow in 2005 was equal to 758 persons only.

It should be stressed that these figures are probably not representative for the actual flows as although there is a legal obligation to register in case of emigration/ immigration, however it is possible to leave the country or to come back without fulfilling this obligation. So those who get work at the destination and decide to stay are not counted.

Migration flows are constrained by visa regulations – Macedonians need visa for almost all countries with the exception of some former Yugoslav countries and former Soviet Union

countries. Moreover, the visa costs, which are substantial in relation to the level of incomes, may set important limitations on migration.

One of the approaches to avoid these regulations is to apply for the citizenship of the neighbouring countries. The most successful are those applying to Bulgarian government. According to Bulgarian Ministry of Justice from 2000 till mid-2006 there were over 80 thousands applications for citizenship out of this 38 thousands were from Moldova, 30 thousands from Macedonia, 3.8 thousands from Russia, by 2.9 thousands from Serbia and Montenegro and from Ukraine, 1.8 thousands from Israel and 1 thousand from Albania. It was not disclosed how many of these 30 thousands of Macedonians were granted Bulgarian citizenship. However, other sources indicate that Bulgaria annually grants citizenship to about 12 thousands of foreigners mainly Macedonians, Moldavians and Ukrainians. If these people decide for emigration it would change the statistics of flows mentioned above. Some of them may emigrate when Bulgaria joins the EU and when other EU countries open the labor market for Bulgarian citizens.

As for other data, the flow statistics of the Statistical Office underestimate the true figures, simply because they refer to official migration only.

5.4. Regional experiences

The magnitude of workers' remittances and compensation of employees received by Macedonian households is relatively small considering the number of emigrants in the regional setting. For example, the official figures for Moldova indicate that the emigration stock, which is 10.5% of population in 2005, sent workers' remittances and compensation of employees in amount of 31.5% of GDP (Table 5.4). Emigrants from Bosnia and Herzegovina remitted approximately 18.5% of GDP in the same year, whereas Macedonian diaspora sent workers' remittances and compensation of employees in amount of 3.92% of GDP. Given the poor data quality, such regional discrepancies may indicate underestimated international migration stocks or hidden remittance flows. In any case, this calls for better exploitation of the remittance potential by the Macedonian diaspora.

**Table 5.4 - Workers' remittances and compensation of employees, received
(In percent of GDP), 1996-2005**

Country/Year	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Average 1996-2005
Bosnia and Herzegovina	..	..	49.75	40.29	31.59	27.97	24.85	22.62	19.76	18.53	29.42
Moldova	5.13	5.91	7.56	9.57	13.89	16.41	19.50	24.58	27.17	31.54	16.13
Albania	18.29	13.66	18.48	11.85	16.22	17.09	16.47	15.83	15.72	15.39	15.90
Bulgaria	0.42	0.49	0.40	0.33	0.46	0.52	7.56	8.62	9.23	7.99	3.60
Croatia	3.36	3.07	2.89	2.80	3.48	3.76	3.84	3.66	3.46	3.17	3.35
Macedonia	1.54	2.09	1.76	2.10	2.26	2.12	2.80	3.76	3.97	3.92	2.63
Romania	0.05	0.05	0.12	0.27	0.26	0.29	0.31	0.21	0.17	4.80	0.65

Source: World Bank, World Development Indicators (WDI) April 2007, ESDS International, (MIMAS) University of Manchester

The implicit propensity to remit of country-specific emigration stocks highlights even larger disparities. The estimated workers' remittances and compensation of employees *per sender* (under the implausible assumption that every migrant would remit) is 40,019.8 US \$ in the case of Bosnian migrants, whereas Macedonian diaspora remitted only 1,861.7 US \$ in 2005. As table 5.5 indicates, the implicit remittance inflow *per sender* is calculated as ratio of the total workers' remittances and compensation of employees and country's emigration stock.

Table 5.5 - International migration stock (in thousands), estimated workers' remittances and compensation of employees (in Millions of US \$) and estimated remittances per sender (in US \$), 1990-2005

Estimated migration stock							
Year/Country	MK	ALB	BIH	BG	CRO	ROM	MOL
1990	94.7	65.8	58.2	21.5	475.4	142.7	580.1
1995	114.6	74.1	79.4	46.7	735.5	135.0	472.9
2000	126.6	80.8	100.9	102.1	600.2	134.2	404.0
2005	121.4	83.1	46.1	103.7	661.8	133.5	377.5

Estimated workers' remittances and compensation of employees (in millions of US \$)							
Year/Country	MK	ALB	BIH	BG	CRO	ROM	MOL
1990	...	...	...	...	...	...	...
1995	...	427	...	...	544	9	1000
2000	81	598	1595	58	641	96	179
2005	226	1290	1844	2130	1222	4733	920

Estimated average remittances per remitent (in US \$)							
Year/Country	MK	ALB	BIH	BG	CRO	ROM	MOL
1990	...	...	...	...	...	...	...
1995	...	5759.7	...	...	739.6	66.7	2114.5
2000	639.6	7400.4	15809.9	567.9	1068.0	715.3	443.1
2005	1861.7	15531.6	40019.8	20537.1	1846.3	35457.4	2437.1

Source: Authors' calculations based on data from World Perspective, Université de Sherbrooke, Canada and International Financial Statistics (IMF).

Observed disparities at macroeconomic level underscore the fact that household surveys could provide better understanding of the nature of remittance flows. Questionnaires usually encompass a number of questions related not only to the magnitude, but also to the final use of the remittances (whether remittances are associated for saving, consumption or investment), which sheds more light on the potential growth-conducive effects of remittances. Yet, economic consequences of migrations and remittances in Macedonia are hardly recognized.

5.5. Push- and pull factors in the case of Macedonia

In order to forecast further migration flows, an assessment of the push- and pull-factors for migration is needed. To our best knowledge, the designed questionnaire, discussed in section 9, is the first comprehensive attempt to study the determinants of Macedonian emigration.

A number of theoretical approaches could be applied when analyzing labour mobility. In the neoclassical framework labour mobility reflects income and wage differentials. Temporary mobility can be better explained by the New Economics of Labour Migration that states that people migrate not only to maximize expected incomes but also to overcome various kinds of market failures. There are also structural approaches, neoclassical microeconomic theories and network theories which provide the potential framework of migration analysis (for overview see World Bank, 2006b). Neoclassical approach provided very simple model for analysis and therefore was quite popular in forecasting migration flows following EU enlargement in 2004. However, it should be stressed that these studies overestimated potential flows.

Applying the neoclassical framework to Macedonia results in the following conclusions:

- The income level could be considered as major factor in the migration decision making process. In terms of GDP per capita, Macedonia is lagging far behind all EU countries (Chart 5.2). It is also lagging behind all EU candidate countries (Bulgaria, Romania, Croatia and Turkey). Additionally, the economic growth observed in Macedonia is not impressive given the needed nominal and real convergence as well as in terms of job creation.
- Another important pro-migratory factor is the wage differential. Two figures are compared: average gross earning in industry and services and monthly minimum wage. For the short-term migration, wage differentials are important incentive, while net wage differentials (adjusted for cost of living) should matter more for the permanent migration.
- The unfavourable labour market developments are another push factor, as indicated by the high unemployment rate. For Macedonia this rate is above all the EU countries and new member states (Bulgaria and Romania). Moreover, majority of unemployed constitute long-run unemployed suggesting skill mismatches and low efficiency of the labour market institutions. According to the Labour Force Survey, the long-term unemployment (defined as duration of unemployment for four years or more) was equal to 65.4% in 2005.
- Finally, the migration motivation may also depend on the structure of employment, notably the scale of employment in agriculture and heavy industry. Countries with a higher share of employment in these sectors are characterized by high rates of migration (World Bank, 2006b). Macedonia with the share of those employed in agriculture of 16.8% in 2004 and 19.5% in 2005 is comparable with EU countries with highest rates like Poland (18%) or Lithuania (16%). After joining the EU, both countries have experienced massive outflow of labour.

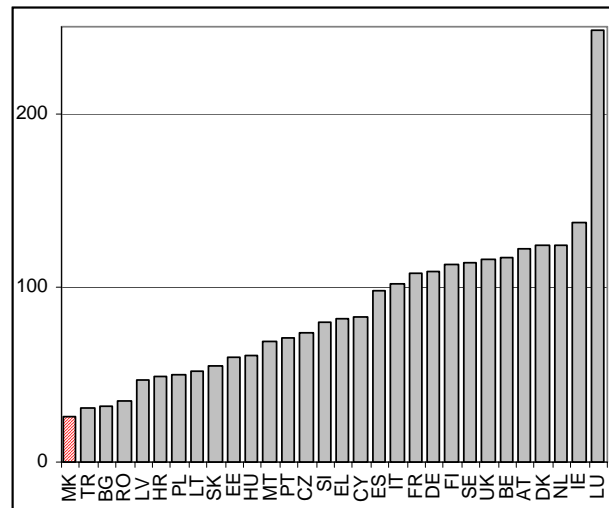


Chart 5.2: GDP per capita in PPS in 2005, EU25=100
Source: Eurostat

Another migration motive could be the search for high quality education. As for now the number of scholarships available for Macedonians is very limited and educational sector abroad seems untouchable. Despite these limitations, emigration of highly educated graduated students is a serious problem.

For statistical purposes, the State Statistical Office identifies several reasons behind the official migration. Out of 1282 persons that emigrated in 2005, the following reasons were stated: employment (518 persons or 40.4%), marriage (85 or 6.6%), family reasons (420 or 32.8%), education (41 or 3.2%) and other (218 or 17%). All the above noted factors should be thoroughly examined as determinants of migration flows, when the EU negotiations take place.

5.6. Why is it important?

Migration is an important element of the mutual relations between the EU and neighboring countries. The EU often underlines the need to combat illegal migration and increase the benefits of legal migration. The efficient instruments are bilateral labor migration agreements, but Macedonia has not developed this instrument yet (signed only with Germany; OECD, 2004).

When granting candidate status to Macedonia, the EU set many conditions concerning migration. It is demanded from Macedonia to reduce illegal migration flows, ensure safe return of illegal migrants, and build capacity to better manage migration. It is necessary to develop a central database for all aliens covering asylum, migration and visas. Meeting these conditions in March 2006 Macedonia approved the Law on Aliens (law on migration). With the adoption of migration law the visa regime was expected to be in compliance with the basic EU visa provisions. There were legislative actions taken to combat trafficking in human beings as Macedonia is predominantly a transit country for illegal immigration rather than a destination country.

As for migration, the EU commission stressed that 2002 population census did not cover registration of emigrants and immigrants hampering the determination of net migration. To some extent this gap is covered by the Labor Force Survey conducted regularly.

Negotiating changes in the visa regime and subsequently the EU accession Macedonia will have to refer to the potential migration issue, as happened in the case of previous wave of EU enlargement. Although the expectations of massive migration from new to old member states did not materialize, however in the process of negotiation this issue played an important role and delayed the opening of the labour markets for the acceding countries. Given the difficult situation in the labour market in Macedonia, the risk of surge in emigration once the visa regime is liberalized is high. As we already noted, deeper analyses on this issue are still missing.

6. Review of Existing Compilation Practices for Official Remittance Statistics²⁰

The private transfers are a part of the current transfers, which is one of the four basic components of the current account in the balance of payments. The *private transfers* in the balance of payments consist of: remittances, cash exchanged and other transfers. The source of data is the ITRS (International Transactions Reporting System), through which the banks report on all payment transactions between residents and non-residents. There are separate codes for each type of private transfers.

Workers' remittances are transfers by migrants who are employed in foreign economies to residents of the domestic economy, usually related persons. Cash exchanged on the exchange market in accordance with the BPM5 (Balance of Payments Manual, 5th edition) should be classified in the capital and financial account of the balance of payments. However, regarding the fact that the largest part of these assets originates from the residents' receipts from non-residents on the basis of provided goods and services (unrecorded transactions) and transfers received in cash foreign currency, these transactions are recorded as a part of the balance of payments' current account (private transfers).

Other *current transfers* between resident and nonresident entities include regular contributions to charitable, religious, scientific, and cultural organizations. Also covered are gifts, dowries, and inheritances; alimony and other support remittances; tickets sold by, and prizes won from, lotteries; and payments from unfunded pension plans by nongovernmental organizations.

7. Macroeconomic Perspective on Private Transfers and Remittances

The analytical framework of the macroeconomic perspective in the estimation of remittance inflows is based on the following macroeconomic identity:

$$NCT = CAB + C^P + C^G + I^{GROSS} - GNI \quad [...1]$$

where NCT denotes net current transfers, CAB stands for the current account balance, C^P denotes the household consumption, C^G is the general government consumption, I^{GROSS} denotes gross domestic investment and GNI stands for the gross national income.

We assume that Macedonian authorities pursue medium-term current account targeting, so that the current account deficit does not exceed the threshold of 6% of GDP (see Table 7.1). The experience of fast growing transition economies (particularly, the Baltic States) reveals that the conventional sustainability threshold of 5% is no longer applicable for these

²⁰ This chapter 6 was written by the Macedonian Central Bank – NBRM.

economies. Therefore, assuming that the current account deficit would not exceed 6% of GDP is plausible assumption.

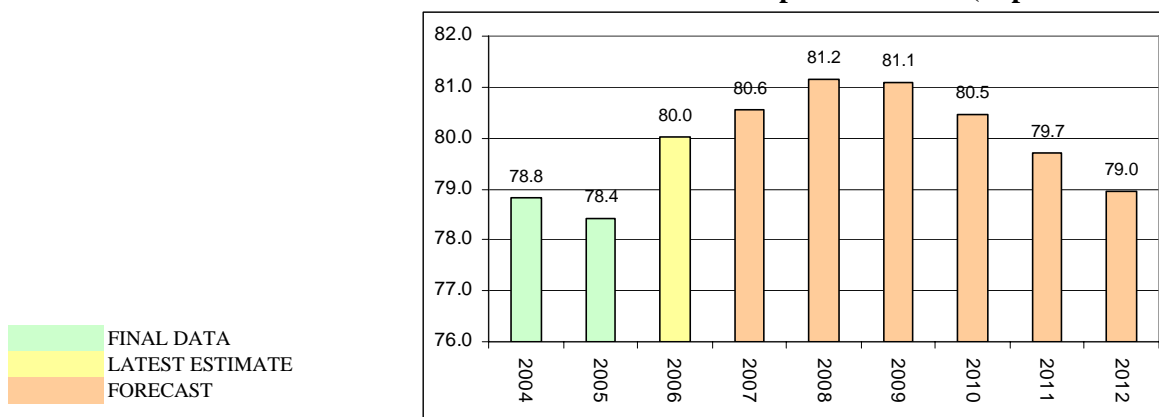
Table 7.1 - Key inputs in the macroeconomic model

	2007 ^e	2008 ^f	2009 ^f	2010 ^f	2011 ^f	2012 ^f
Forecasts (in %)						
Real GDP growth	5.0	5.0	5.5	5.8	6.0	6.0
Implicit GDP deflator (annual average)	3.5	3.5	2.0	2.0	2.0	2.0
Nominal GDP growth	8.6	8.6	7.6	7.9	8.1	8.1
Targets (in percent of GDP)						
Current account balance	-2.8	-5.9	-5.1	-3.9	-3.6	-3.2
Gross domestic investment	24.3	28.5	29.9	31.0	30.8	30.2

Note: e=estimate; f=forecast.

Furthermore, we assume that real private consumption growth would stabilize at 5% in medium term. Even so, in terms of GDP, the share of this category is expected to exhibit declining trend (Chart 7.1). Government consumption forecasts are treated as exogenous, since they are already agreed within the medium-term fiscal framework, designed by the Ministry of Finance and the International Monetary Fund. The government consumption deflator is assumed to be twice lower than the implicit GDP deflator, whereas the private consumption deflator is forecasted to exhibit the same pattern as the implicit GDP deflator.

Chart 7.1 - Private consumption forecasts (in percent of GDP)

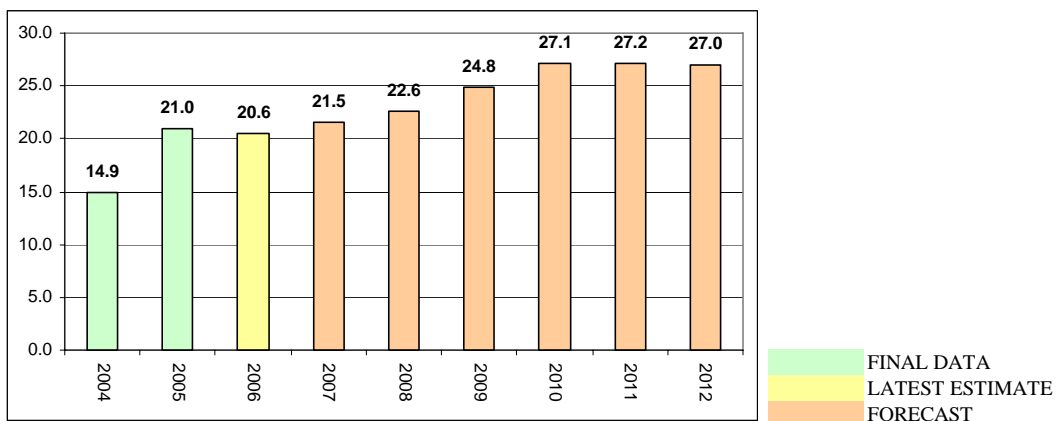


Moreover, the gross domestic investment is targeted to gradually reach 31% of GDP in 2010. Presently, there are a number of reasons behind the strong investment demand: (i) significant improvements of the business climate and more stable economic prospects, (ii) huge catching-up potential of the Macedonian economy, (iii) tax burden reduction, etc.

The consistency of the gross domestic investment and current account targeting is cross-checked in terms of the implicit gross national saving rates, which are treated as residual

(Chart 7.2). Such scenario requires improved saving propensity by the Macedonian residents, which would reach the record level of gross national saving of 27% of GDP.

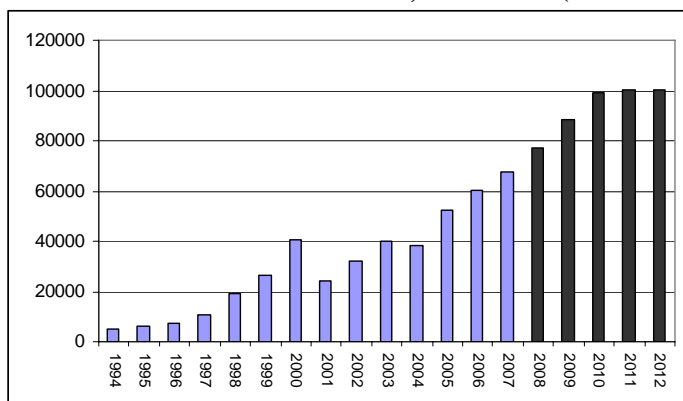
Chart 7.2 - Gross national saving rates (in percent of GDP)



Lastly, we assume that growth rate of nominal gross national income (GNI) would closely track the nominal GDP growth rate, which has already been forecasted from the production side. This implies that we do not foresee any particular assumption related to the developments of the net primary income from abroad.

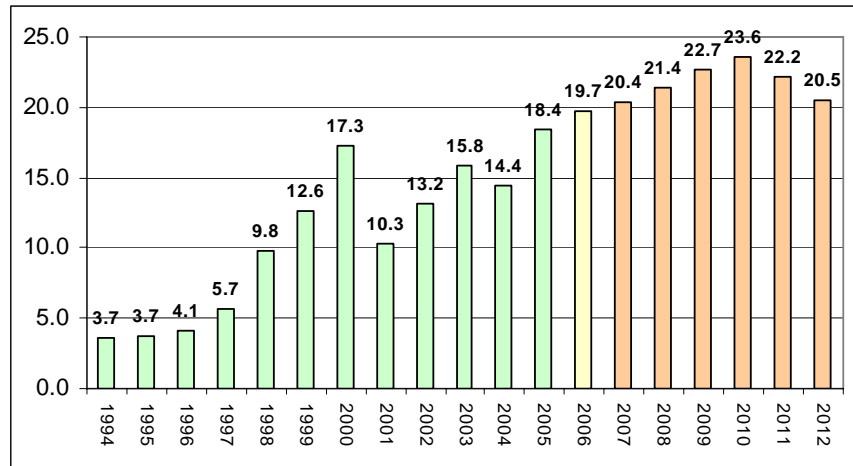
Under these assumptions, net current transfers are projected to display decelerated growth and leveling off in 2011 (Chart 7.3).

Chart 7.3 - Net current transfers, 1994-2012 (in millions of Denars)



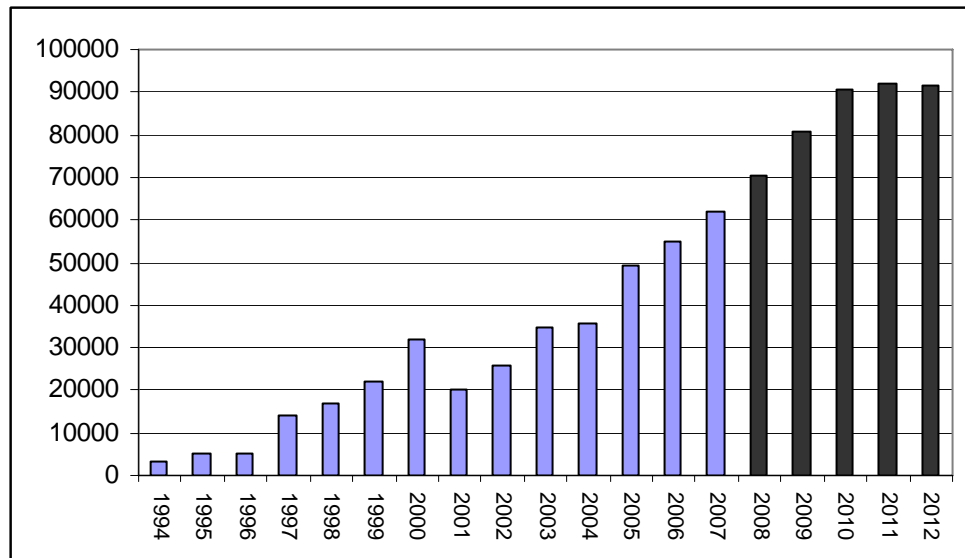
As indicated by Chart 7.3, in percent of GDP, this implies growing trend until 2010 and then moderate decline in 2001 and 2012.

Chart 7.4 - Net current transfers, 1994-2012 (in percent of GDP)



Lastly, under the assumption that private transfers will constitute 91.3 percent of the net current transfers, which is the average for 2003-2005, then private transfers are expected to display similar pattern during the forecast period.

Chart 7.5 - Private transfers, 1994-2012 (in millions of Denars)



The best approach to check the plausibility of the macroeconomic scenario with respect to net private transfers is to confront the projections with the remittance recipients' and senders' survey. Such exercise would provide micro-based evidence in favour of, or against the elaborated analytical framework.

8. An Estimate of Emigrant and Diaspora Remittances - Analysis of the Questionnaire

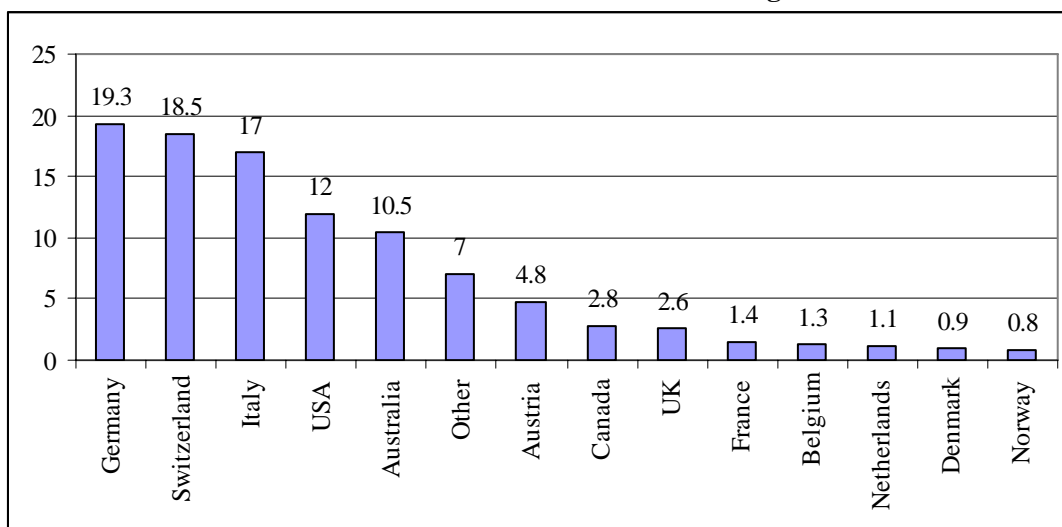
8.1. Remittance-receiving households

Profile of the remittance recipients

Most respondents (55.4% out of 1046) have only one person from their family working abroad. The responses of remittance-receiving households indicate that 19.7% have parents, and 32.0% have son or daughter abroad. Husbands or wives as migrant workers have 13.7 % of the respondents, whereas brother or sister 33.4%.

The relatives of remittance recipients are concentrated in Germany, Switzerland and Italy (55% in total). The main host countries of Macedonian migrant workers are presented in Chart 8.1.

Chart 8.1 - Main host countries of Macedonian migrant workers



Reasons for migration

The most important reasons for migration are the expectations of higher income abroad (36.7%), and unsuccessful job search in Macedonia (30.5%). Moreover, better quality of life expect 20.9% of the respondents, 5.7% are joining their families abroad, and 3.3% are looking for better educational quality.

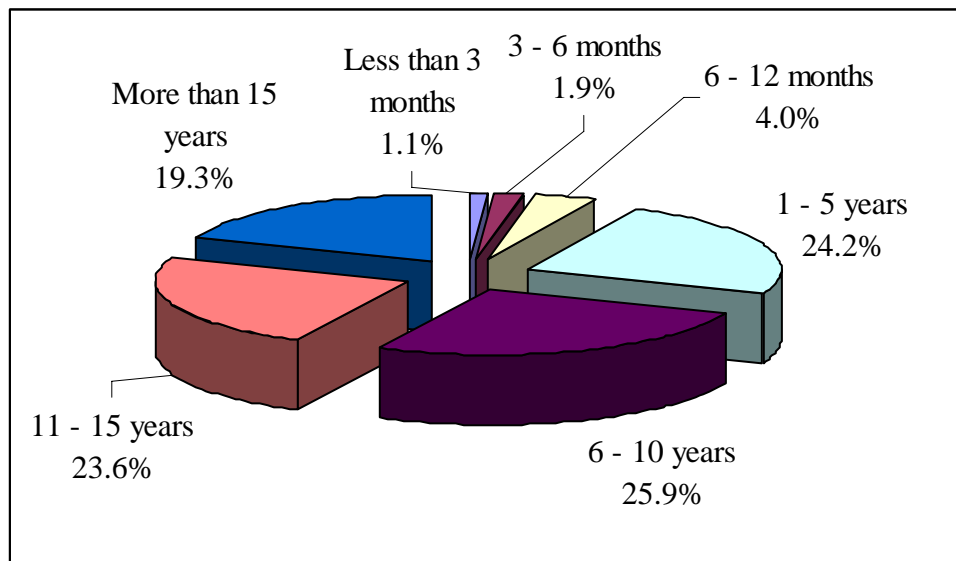
Table 8.1 - Conditioning factors for migration (pull- and push factors) perceived by the remittance recipients

Conditioning factors for migration	In percent
<i>Pull factors</i>	66.6%
Higher income in the destination country	36.7%
Better quality of life in the destination country	20.9%
Education	3.3%
Joining the other family members	5.7%
<i>Push factors</i>	30.5%
Impossibility to find job in Macedonia	30.5%
<i>Other reasons or no response</i>	2.9%

Duration of stay abroad

Most respondents are abroad more than 15 years (28.8%), whereas 52.4% are more than 10 years.

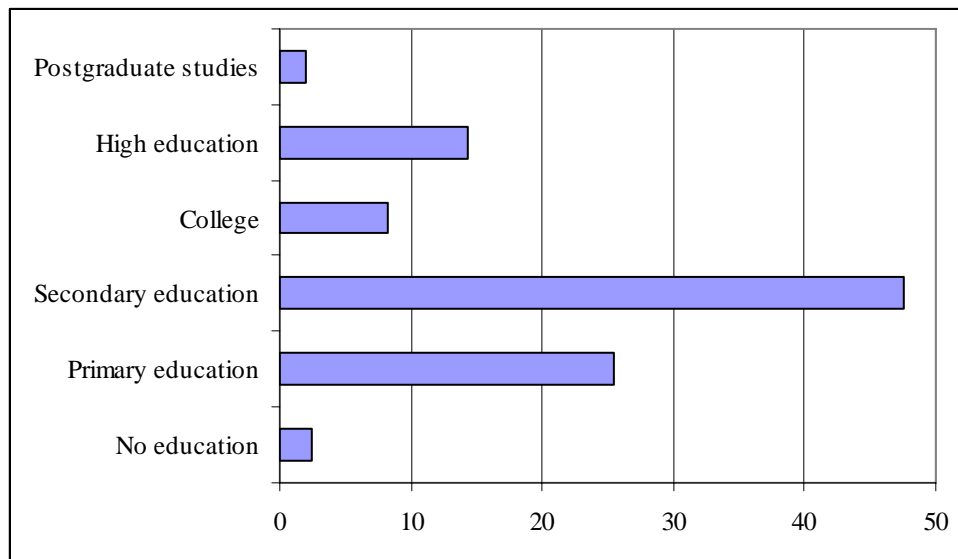
Chart 8.2 - Duration of stay abroad (temporary vs. permanent migrants)



The education background of remittance senders

Most senders have only secondary school (57.2%).

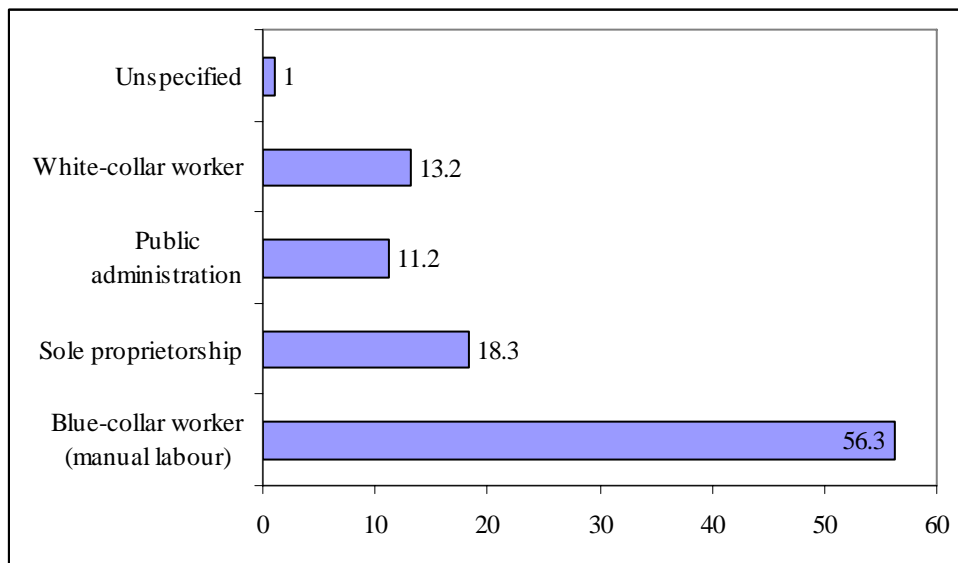
Chart 8.3 - The education background of remittance senders



Professional background of the remittance sender

Most senders are blue-collar workers (56.3%), and the rest are evenly distributed among sole proprietors (18.3%), white-collar workers (13.2%) and public administration (11.2%).

Chart 8.4 - Professional background of the remittance sender



Types and timing of money transfer

Most respondents are receiving funds from abroad (85.7%), out of which nearly 81% have received funds from only one sender. Remittance-receiving households get the funds by physical transportation of cash (44.4% get them in hand from the relative, 15.2 percent receive transfers through formal money transfer businesses, and 23.4 through bank transfer. Hence, more than half of the money transfers, coming as private transfers are not registered through the payment operations channels.

Table 8.2 - Types of remittance channels used

Types of money transfer	Number of respondents	Percent	Recalculated percent
Physical transportation of cash by the worker	398	38	44.4
Making transfers through formal money transfer businesses (Western Union)	136	13	15.2
Making bank transfer	210	20.1	23.4
Physical transportation of cash by friend or colleague	138	13.2	15.4
Physical transportation of cash by visiting family member	6	0.6	0.7
Other type	8	0.8	0.9
Sub-total	896	85.7	100
Respondents declared "no remittances received"		150	14.3
Total		1046	100

Most respondents (39.0%) that are getting funds through the bank prefer this type because of the safety or because of the sender's preferences. And only 9.6% answered that the decision is based in terms of the transaction costs.

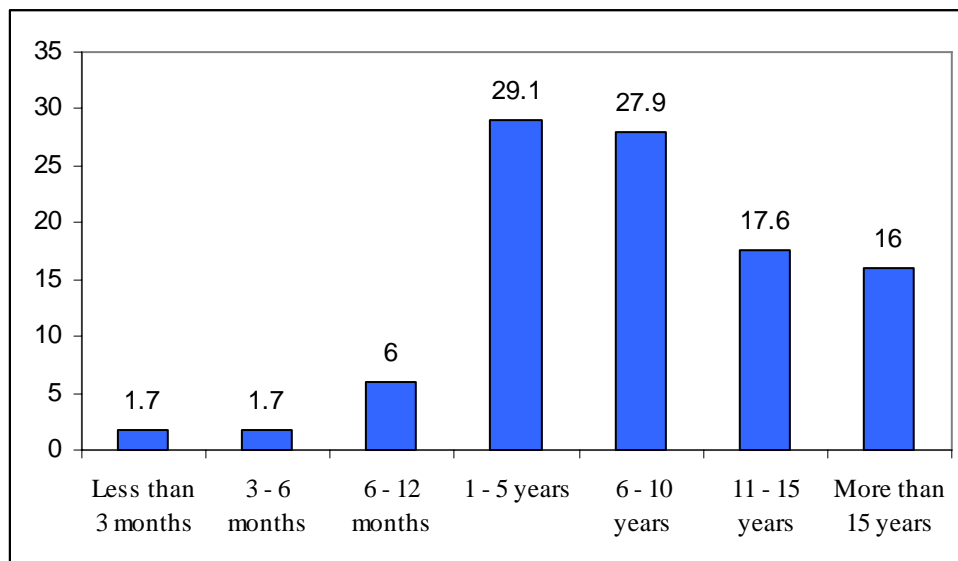
Most of those who get the funds through Western Union are choosing this type of money transfer because it is faster than the others (49.2%), because it is the preferred method by the sender (22.9%), whereas 17.3% believe this is the safest manner.

Only 1.6% of remittance recipients get funds through credit card from foreign bank. Most of those who receive cash prefer this way because it reflects sender preferences (64.5%) or because they perceive it as the safest way (25.7%).

Therefore, the strongest impact on selecting the type of money transfer have the senders' preferences and the safety reasons, while the option of Western Union money transfer is preferred in terms of promptness.

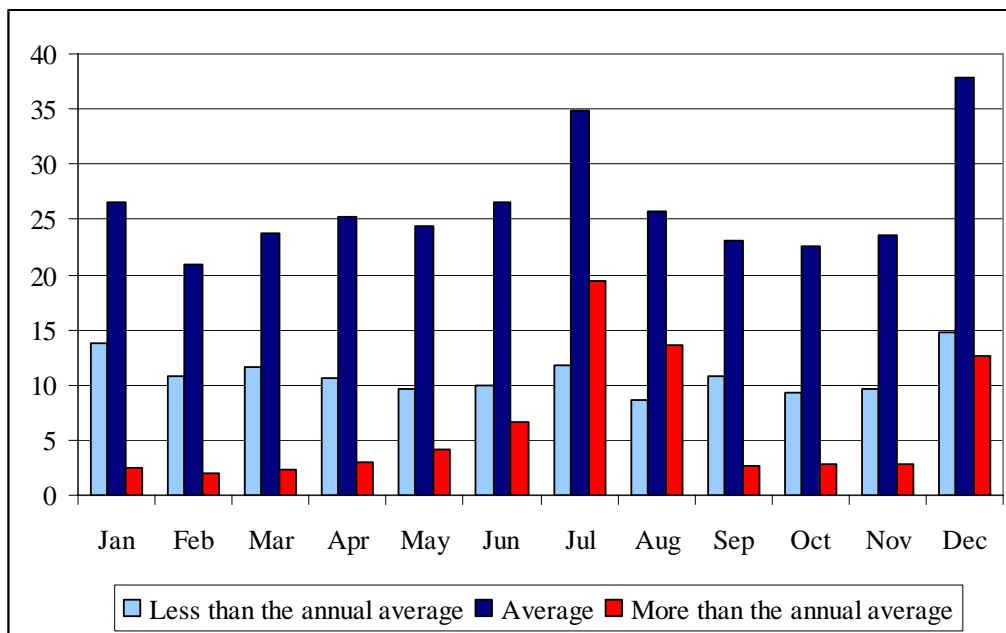
More than 60.9% of remittance-receiving respondents rely on private transfers for more than 5 years.

Chart 8.5 - Dependence on remittances of Macedonian remittance-receiving households



Many recipients answered that during the summer months they get most of the funds, which indicates strongly pronounced seasonal effect.

**Chart 8.6 - Monthly fluctuations of remittance inflows
(the monthly amount is less than average, average and more than average)**



The highest amounts of remittances are received in July and December.

Magnitude of received remittances

Interestingly, 83.9% of the respondents report that they receive between 0 to 5000 EUR as private transfers from abroad. Out of them, 34.7% received between 1000 and 5000 EUR.

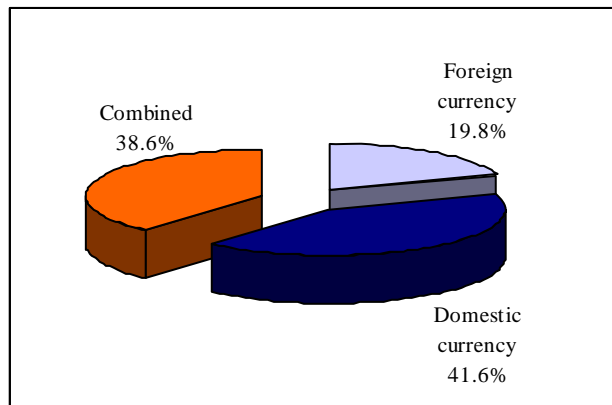
Table 8.3 - Magnitude of received remittances

Amount of remittance received	Number of respondents	Percent
Less than 500 EUR	168	16.1
Between 501 and 1000 EUR	272	26.0
Between 1001 and 5000 EUR	311	29.7
Between 5001 and 10000 EUR	87	8.3
Between 10001 and 20000 EUR	33	3.2
More than 20000 EUR	17	1.6
No response	8	0.8
Respondents declared "no remittances received"	150	14.3
Total	1,046	100

Currency structure of spending financed by remittances

Most respondents are spending the funds in Denars (41.6%), 19.8% in the same currency as they got the funds, and 38.6% as combination. An exceptionally high percentage (81.1%) of remittance recipients save or spend in cash, thereby avoiding the bank transactions.

Chart 8.7 - Currency structure of spending financed by remittances



Spending priorities (Final uses of the remittances)

The respondents could report a variety of spending decisions with modalities, such as least important, important, most important or irrelevant.

Table 8.4 reveals that the funds are mostly spend on current spending. Lower priority is attached to saving decisions, and the least important is the housing maintenance. Portfolio investment and real estate purchase seem to be the least preferred options.

Table 8.4 - Spending priorities (Final uses of the remittances)

Final use / purpose	Not important	Most important	Important	Least important
Saving	60.5	13.7	16.6	9.2
Current spending	7.7	74.1	14.5	3.7
Family celebrations	69.2	5.6	17.0	8.3
Cars (durable goods)	90.2	1.5	4.8	3.6
Construction of homes	85	8.8	4.7	1.5
Housing maintenance	70.8	5.7	13.5	10
Business start-ups	92.7	2.6	2.6	2.1
Real estate purchase	98.3	0.7	0.3	0.7
Portfolio investment	98.4	0.3	0.6	0.7
Loans	97.3	0.2	1.0	1.5
Other	90.6	1.6	2.8	5.0

Moreover, 75.3% of the respondents reported they spend the remittances within the next six months of their reception.

Remittances received as percent of total household income

33.8% of the remittance-receiving households report that the magnitude of remittances is between 10% and 30% of their disposable income, and 14.8% of them declared that these funds could be the only source of their income (between 90% and 100%). Interestingly, 39% of the respondents reported that remittances received constitute half of their disposable income.

Chart 8.8 - Remittances received as percent of total household income

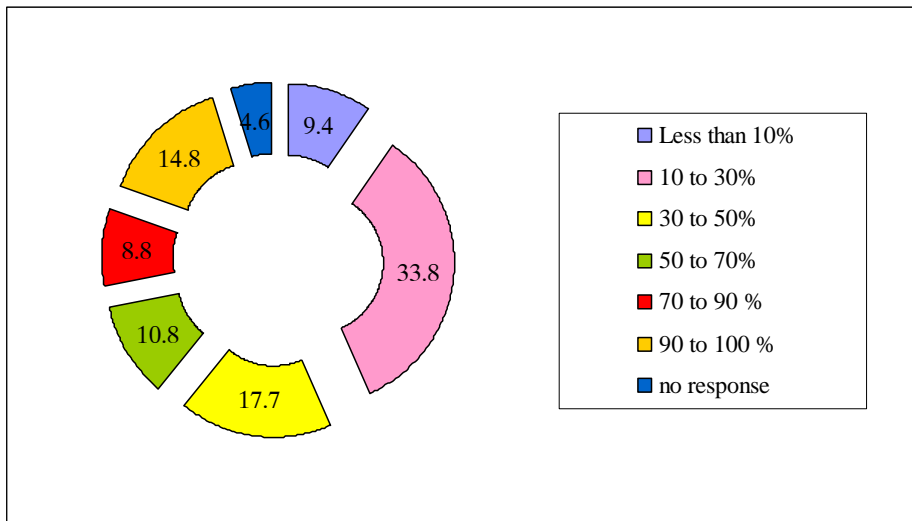


Table 8.5 indicates that not much funds are used for investing, whereas most are used as a cash flow. Moreover, 26.3% from respondents reported that they will spend nearly the all amount received.

Table 8.5 - Allocation of remittances received by final use (median for each class)

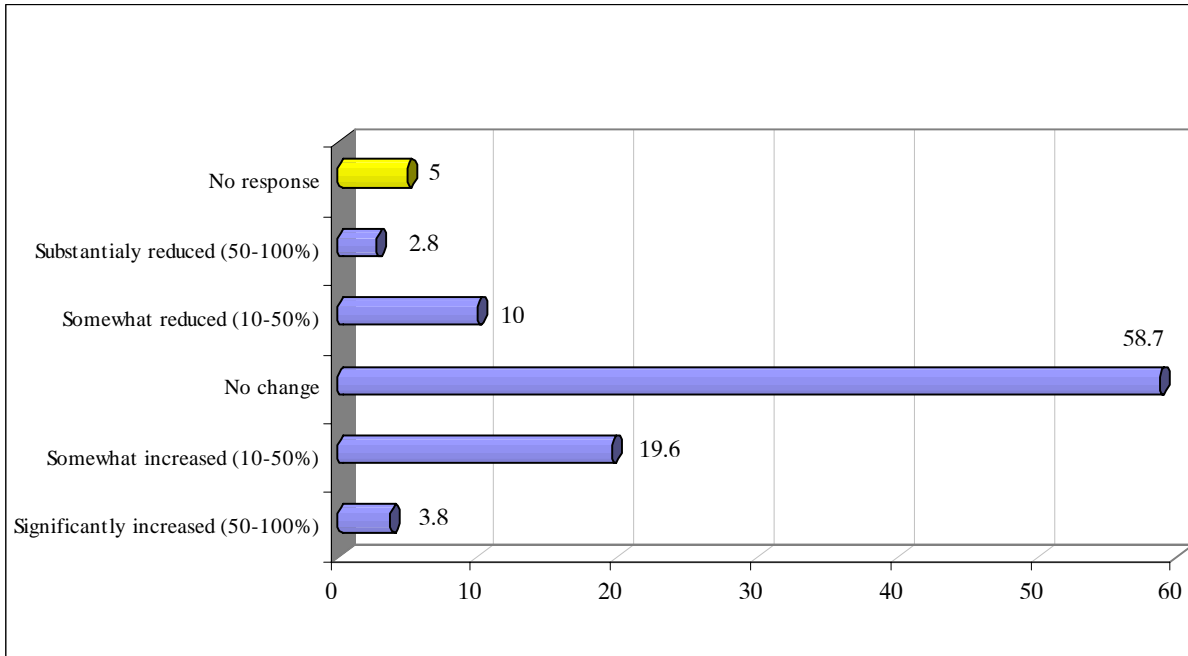
	Not devoted for this purpose	Up to 10%	10 - 20%	20 - 30%	30 - 40%	40 - 50%	50 - 60%	60 - 70%	70 - 80%	80 - 90%	90 - 100%
Saving	60.3		9.8								
Current spending	8.6										26.3
Cars	84.7		5.1								
Construction of homes	89.1			2.6							
Housing maintenance	76.1		9.9								
Celebrations	76.1		8.3								
Business start-ups	94.8	1.5	1.5								
Real estate purchase	98.9		0.2	0.2			0.2				
Portfolio investment	98.9		0.2	0.2	0.2						
Loans	97.8	1.3									
Other	91.6	3									

Trends in remittance inflows, reasons and expectations

The survey reveals that 58.7% of the remittance-receiving respondents reported that they do not anticipate any changes of the amount in comparison with 2005 and 2006. However, the

largest share explained that these two years witnessed increasing amounts of remittance received.

Chart 8.9 - Trends in remittance inflows (Annual remittance inflows in 2005 and 2006 in comparison with previous years)



The reasons behind such trends in remittance inflows are different: 44.1% reported that all depends on the earnings of the relatives abroad, 26.9% explained that these transfers depends on the family needs, and only 3.2% responded that the main determinant is the political and economic situation in Macedonia.

The expectations of the remittance-receiving respondents are that no changes in the trend are foreseen (49.7%), 25.4% are expecting moderate increase and 17.4% believe they will receive smaller amounts of private transfers. The reasons behind those expectations are in line with the trend.

Plans of the remittance senders

Most remittance-receiving respondents (44%) reported that the migrant worker visits Macedonia 2-3 times per annum, whereas 33.8% opted for one visit per year. Within this percentage, 61.3% of remittance-receiving households reported that the migrant workers are staying from one to three weeks, and 32.4% declared that they are staying from one to three months. 45.6% of the remittance-receiving respondents explained that their relatives are planning to stay abroad in future, and 24.7% said that they do plan to return to Macedonia.

Plans of the remittance recipients

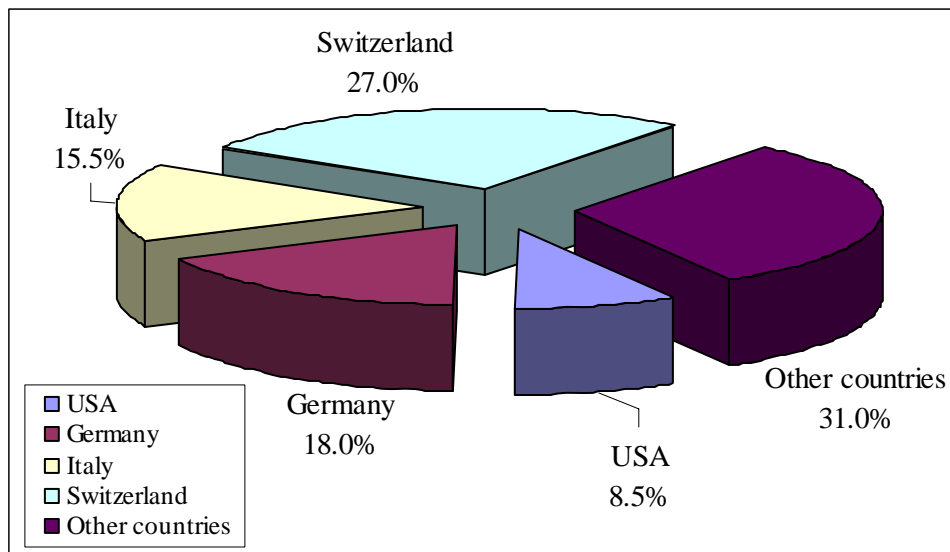
Only 32.1% of respondents are determined not to emigrate, whereas 21.7% of them are planning to do so. 19.7% of those planning to go abroad, would like to stay there forever, and 82.3% will be sending remittances to their family in Macedonia.

8.2. Remittance senders

Destination and period for staying abroad

Out of the sample of 200 respondents, the largest shares of senders come from Switzerland (27.0%), Germany (18.0%), Italy (15.5%) and USA (8.5%). This is consistent with the gravity models of remittance flows that highlight the distance from the home country as one of the main determinants of the destination country.

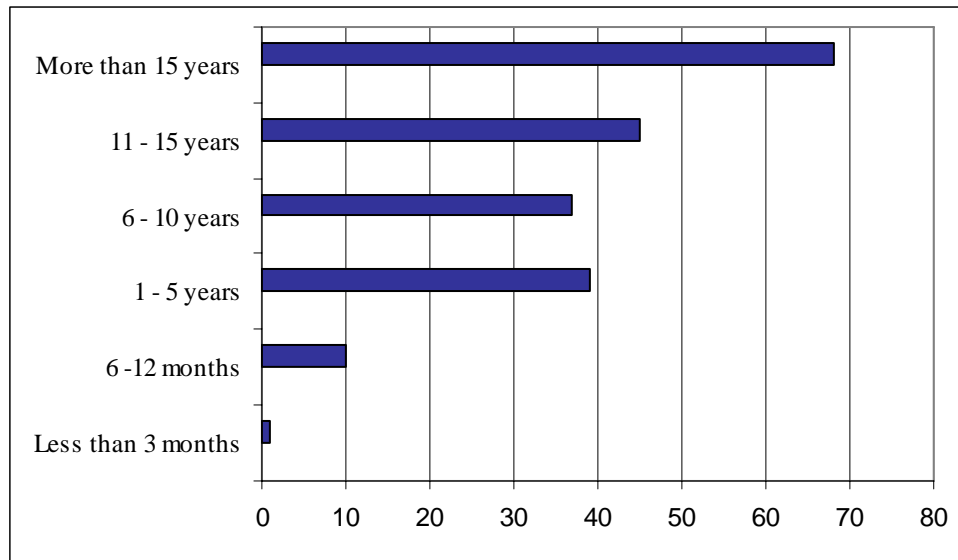
Chart 8.10 - Main source countries of remittance inflows in Macedonia



Large share of respondents declare that they send remittances for many years. This is a category of permanent migrant workers, given the fact that 56.5% from the respondents are more than 10 years abroad (Chart 8.11).

Given the relatively low share of the seasonal workers in the sample, one could observe that estimated remittance inflows will reflect the long-term migrant's propensity to remit. The results for the duration of stay are consistent with the responses on the number of the household members joining the remittent. 50% of the respondents are living with their spouse, 46% of those live with their son or daughter, and 20% of them are staying with their parents. In accordance with the empirical literature on migrant remittance flows, if the close family members accompany the emigrant, then their propensity to remit is lower (Faini, 2007). With respect to the plans for returning to Macedonia, even 44.5% are reporting that they do not plan to return, but 37% are still hesitant whether they will permanently migrate.

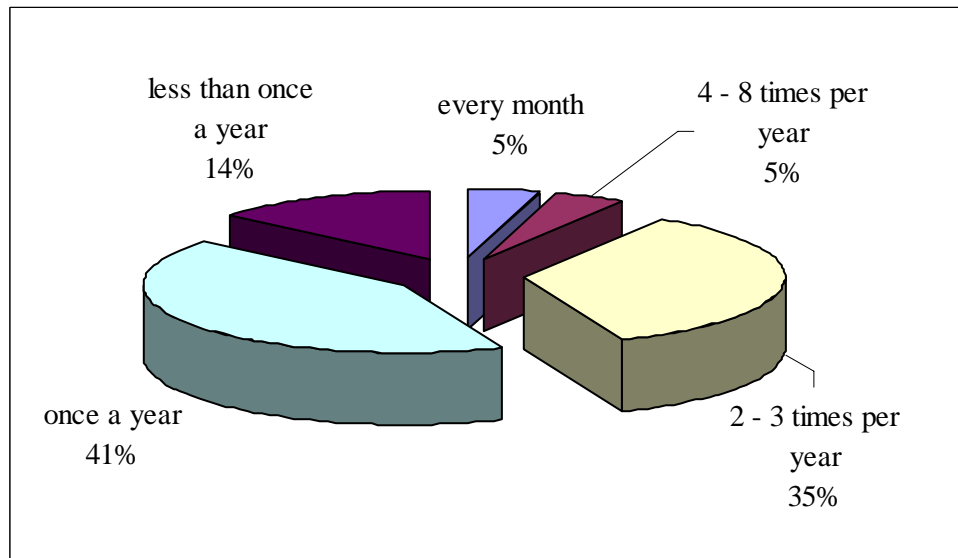
Chart 8.11 - Duration of stay of remittance senders



Frequency of trips to Macedonia

Again the responses are entirely consistent with the number of visits to Macedonia. Most respondents answered they are visiting Macedonia at least once per year (42%), whereas 35% reported that they visit Macedonia 2 or 3 times per year.

Chart 8.12 - Frequency of trips to Macedonia



Most respondents are coming to Macedonia on a short visit (58.5%), from one to three weeks, and most of them (77%) are usually staying only for the summer. A stylized fact is that 77% from the respondents are staying in Macedonia for one to three months. The responses seem logical, if we consider that the main destination for Macedonian emigrants are the European countries (Germany, Italy and Switzerland). Republic of Macedonia has direct airline

connections with these destinations and such distance permits even alternative modes of transport (e.g. traveling by car). The duration of stay from one to three months is a relatively wide interval, as it precludes estimation whether the respondents are concentrated on the lower borderline of the interval (implying they are taking one month leave from their employer), or they work for nine months abroad (e.g. Italy or Greece), so that they can return to Macedonia for three-month visit.

The concentration of emigrants in certain countries supports the preposition of magnet effect (pull factor) that facilitates the decision for migration of the other family members or friends. In this case, the 46.5 % of the respondents are stating that they have helped in the job search or organized the trip for their friends or relatives. Moreover, 12.5 % of the respondents decided to migrate because this was family tradition.

Conditioning factors for migration

The main reasons behind the decision to migrate are usually linked with certain indicators of ‘the magnetic force’ of the destination country and the unfavourable political or economic situation in the migrant home country. The theoretical push-pull model identifies two groups of factors determining the decision to migrate. Standard variables in the first group (pull factors) are the wage differential, the differences in the quality of life in the host country, the emigration stock in particular country, the degree of political and economic freedom, fluency of the foreign language, destination country attitude toward foreigners (or degree of xenophobia), the generousness of the social security system, etc. On the other side, there are a lot of push factors which motivate individuals or household to leave their home country: high unemployment rate, wars or conflicts, relatively low wages, labour force discrimination, limited political and economic freedom, dissatisfactory education quality system etc.

Table 8.6 presents the answers with respect to the push and pull factors for migration.

Table 8.6 - Conditioning factors for migration (pull- and push factors) perceived by remittance senders

Conditioning factors for migration	In percent
<i>Pull factors</i>	68,5%
Higher income in the destination country	36,0%
Better quality of life in the destination country	17,5%
Education	2,5%
Joining the other family members	12,5%
<i>Push factors</i>	27,5%
Impossibility to find job in Macedonia	27,5%
<i>Other reasons or no response</i>	4,0%

The questionnaire design favours the pull factors, but given the low percent of responses for "the other non-specified factors", this has proven to be appropriate empirical strategy. Over 68% of respondents migrate because of the more favorable conditions in destination country, and 27.5% reported that the high unemployment rate is the main factor for leaving the Republic of Macedonia.

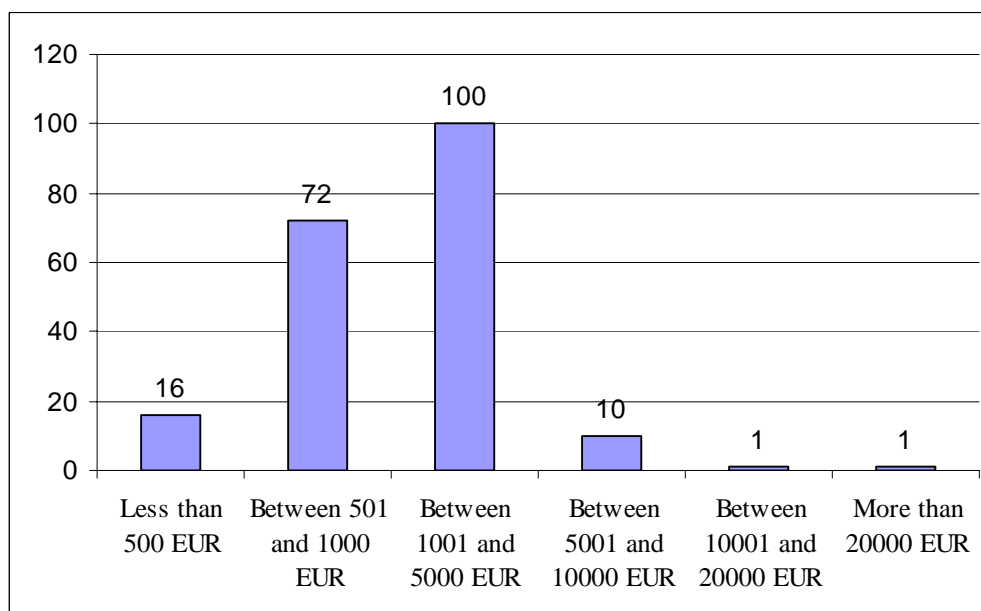
The occupational status of senders

According to the occupational status of respondents, it seems that low-skill migrant workers have the largest share. More precisely, 54% are blue-collar workers, while the 17% of respondents are sole proprietors, whereas only 9% have some form of intellectual work. The existing body of empirical literature demonstrates that low-skill migrant workers have greater propensity to remit, which is associated with favourable microeconomic (financial support to their families) and macroeconomic implications (higher remittance inflows in the current account balance).

Magnitude, final use and preferred currency for remittance-financed expenditure

During their stay in Macedonia, emigrants display relatively high propensity to spend, which could be explained by their wish to justify the sacrifice for leaving their home country or the need to provoke admiration or jealousy. Even, 50% of the respondents answered that during their short-term stay in Macedonia, they are spending between 1000 and 5000 EUR, and 83% of them say that they do not save at all (Chart 8.13). Most of them are planning their visits in accordance with the family celebrations, given the fact that 68% of respondents indicated that this is the most important expenditure while they are staying in Macedonia. 34% of the respondents are spending on housing maintenance. The number of respondents reporting real estate purchase is negligible. Nearly all of the respondents are not interested for portfolio investments.

Chart 8.13 - Magnitude of spending during the stay in Macedonia



An interesting stylized fact is that the practice of intrafamily loans has nearly ceased. Even 93% of respondents answered that they are not lending to family members. Recent empirical literature conjectures that the fall in intrafamily borrowing is associated with the financial system development and improved access to consumer credit (Schrooten, 2005; Giuliano and Ruiz-Arranz, 2006). Given the rapid private-sector credit growth, this is likely scenario for Macedonia, as well.

Currency substitution and remittance senders

The responses with respect to the preferred currency for cash transactions reveal that on average, 72.8% of the remittance amount is exchanged in Denars (Table 8.7). Moreover, 81 of the respondents (or 40.5 % of the sample) report that their payment operations are preceded by foreign currency exchange in Denars.

Table 8.7 - Use of foreign money as means of exchange (degree of currency substitution)

Number of respondents	Percentage of preference for Denars	Frequency times preference for Denars	Weighted average
81	100	8,100	
49	70	3,430	
50	50	2,500	
15	30	450	
4	0	0	
199	Total:	14,480	72.8%

The relatively low degree of currency substitution, compared to official estimates, might reflect the fear of remittance senders that their responses will be disclosed to authorities.

Propensity to remit

Over 80% of the respondents reported they were remittance senders, out of which 47.2 % answered that they financially support their parents, 27% - their partner, 20.5% - their brother or sister and 17.4 % - their children.

If non-remittent respondents are excluded from the analysis, then the weighted-average propensity to remit is 27.4% (according the number of respondents and the mid-point of the interval).

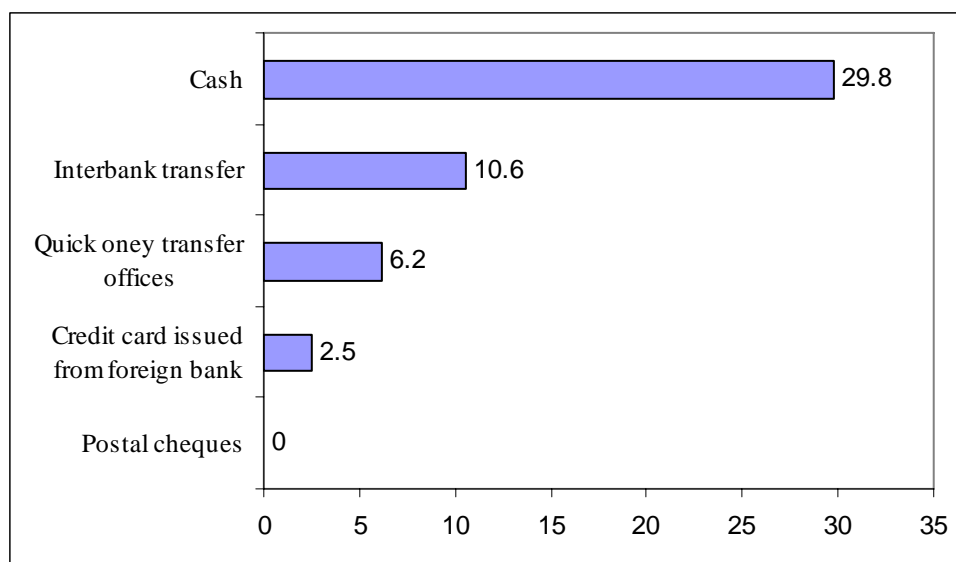
Table 8.8 - Estimation of the propensity to remit

Propensity to remit	Number of respondents	Mid-point of the interval	Frequency times propensity to remit	Weighted average
Less than 10%	36	5	180	
From 10 to 30%	64	20	1280	
From 31 to 50%	25	40	1000	
From 51 to 70%	12	60	720	
From 71 to 90%	7	80	560	
From 91 to 100%	3	95	285	
Total:	147		4025	27.4

Remittance distribution channels

According to the survey, 36.6% of the respondents use the services of specialized cash transfer bureaus, and 24.8% preferred inter-bank transfer of remittances. The credit card distribution channel is not viable option for 92.5% of respondents, implying lack of basic knowledge on electronic banking. The cash delivery is preferred option by 67.7% of respondents, out of which 31.1 percentage points stated that this was preferred channel by the remittance recipients.

Chart 8.14 - Perception of the security of alternative remittance channels



Particularly interesting is the perceived security of certain remittance distribution channels. Even 29.8% of the respondents are considering that physical transportation of cash is the safest way to transfer remittances, 10.6% stated that the inter-bank transfer offers sufficient security, 6.2% reported substantial confidence in the specialized money transfer bureaus, only 2.5 % have confidence in the credit cards, and postal cheques are simply in attractive.

Recommended final use of remittances

About 77% of the respondents supposed that the remittances are not used to increase their household savings, whereas only 13.7% reported that this is very important to them. 78.3% of remittance senders stated that the most important final use of remittances is current consumption, whilst 6.2 % reported that the most important use is to finance the family celebrations. Only 12.5% of them reported that there is likelihood of buying a car (or other durable goods).

Variability of remittance inflows

Most respondents (52% of the sample) there were no significant changes in the remittances they sent in 2006 with respect to the previous three years. The weighted average of the responses demonstrates that the remittances in 2006 were 3.8% higher than the average for the previous three years.

Table 8.9 - Dynamics of remittance inflows in 2006

Increase or reduction of remittances	Number of respondents	Mid-point of the interval	Frequency times the change of the remittance amount	Weighted average
51 - 100% more	6	75	450	
11 - 50% more	33	30	990	
No change	85	0	0	
11 - 50% less	24	-30	-720	
51 - 100% less	2	-75	-150	
Total:	150		570	3.8

The answers are consistent with respect to the expectations. Unfortunately, the questionnaire does not distinguish among short, medium and long term. The answers reflect expectations for a moderate increase of future remittance flows (4.2% increase in relation with 2006).

Table 8.10 - Dynamics of remittance inflows in near future

Increase or reduction of remittances	Number of respondents	Mid-point of the interval	Frequency times the change of the remittance amount	Weighted average
51 - 100% more	6	75	450	
11 - 50% more	38	30	1140	
No change	75	0	0	
11 - 50% less	25	-30	-750	
51 - 100% less	3	-75	-225	
Total:	147		615	4.2

8.3. An estimate of remittance inflows

The estimate of remittance inflows uses the information content of the surveys on both remittance-sending and remittance-receiving respondents. In either case, the annual remitted amount *per sender (per recipient)* is estimated and then, based on the official figures for the emigration stock, the total annual inflow of remittances is calculated.

The remittance senders' survey does not explicitly ask for the remitted amount, but senders do respond to questions on annual earnings and their propensity to remit. According to the survey of 200 respondents, the average annual earning is estimated to equal 32,800 US \$ (the upper section of the left panel in Table 8.11), whereas their weighted-response propensity to remit is 0.274 (the lower section of the left panel). These elements provide an estimated of the average remittance inflow of 8984.4 *per sender*, under the assumption that every migrant worker would remit.

Table 8.11 - Comparison of perceptions on sent and received annual remittance inflows

Remittance senders' survey				Remittance recipients' survey			
Estimated annual earnings:				Estimated annual remittance inflows:			
Annual amount of remittances received	Number of respondents	Frequency times annual amount		Annual amount of remittances received	Number of respondents	Frequency times annual amount	
15000	51	765000		250	168	42000	
25000	50	1250000		750	272	204000	
35000	29	1015000		1250	311	388750	
45000	7	315000		7500	87	652500	
75000	17	1275000		15000	33	495000	
105000	6	630000		25000	17	425000	
<i>Total:</i>	<i>160</i>	<i>5250000</i>		<i>Total:</i>	<i>888</i>	<i>2207250</i>	
Estimated annual earnings:			32,812.5				
Implicit propensity to remit							
5%	36	1.8					
20%	64	12.8					
40%	25	10					
60%	12	7.2					
80%	7	5.6					
95%	3	2.85					
<i>Total:</i>	<i>147</i>	<i>40.25</i>					
Propensity to remit			0.274				
Average remittance inflow sent to Macedonia:			8984.4	Average remittance inflow received in Macedonia:			2485.6

The amount of received remittances is a straightforward question in the remittance recipients' survey. The weighted average of their responses generates an estimate of the received annual remittance amount of 2,486 US \$ per recipient household. The discrepancy between the two surveys is stark, since the remittance senders report that they remit 6,500 US \$ more *per annum*. Even so, it is questionable whether the results from the two surveys are indeed comparable.

The sample of remittance-receiving households is more representative on statistical grounds, because the remittance recipients' survey encompasses 1,046 respondents, which is 5 times more than the sample size of the remittance senders' survey. Therefore, the reported figure of 2,485.6 US \$ *per annum* is taken as more realistic assessment.

Convenient approach in estimating the "true" remittance inflows in Macedonia is to extrapolate the number of respondents that declared dependence on remittances. Yet, the

survey provides an implausibly high figure of 85.7% of remittance-receiving households. As a second best solution, the Macedonian emigration stock could be used to assess the total annual remittance inflows in Macedonia. Even so, there are different estimates of the number of Macedonian emigrants with notable stark discrepancies.

Table 8.12 - Assessment of annual remittance inflows

Source	Estimated emigration stock	Estimated remittance inflows in Macedonia in 2006 (in millions of US \$)	Officially reported migrant remittances in 2006 (in millions of US \$)	Discrepancy
OECD	193,940	482.1	181.45 **	300.65
World Perspective, Université de Sherbrooke, Canada	121,400	301.8	181.45 **	120.35
Macedonian census 2002	35,123	87.3	181.45 **	-94.15
Memorandum items:				
Average remittance inflow	2485.6			
Implicit propensity to remit	27.4			
** Equivalent to 144.68 millions of EUR				

If the OECD statistical database is taken as reliable source for the Macedonian emigration stock, then the estimate of remittance inflows is 482.1 millions of US \$ *per annum* (Table 8.12). The estimated Macedonian emigration stock by the World Perspective at the Université de Sherbrooke in Canada is a bit lower (121,400) and in this case, it would imply an estimated annual remittance inflows of 301.8 millions of US \$ in Macedonia. Lastly, the estimated emigration stock by the Macedonian census in 2002 is 35,123, which is comprised of 22,995 migrant workers staying abroad up to one year (temporary migrants) and another 12,128 staying longer (permanent migrants). The very low margin would imply an estimate of 87.3 millions of US \$ *per annum*.

Given the implausible assumptions that every migrant worker would remit and would have similar propensity to remit, the conservative estimate based on data from the World Perspective at the Université de Sherbrooke in Canada seems realistic. Yet, the estimated annual remittance inflows are a mixture of capital and current transfers and therefore, in the next section we estimate the share of each component.

The extent of possible uses of remittances has been formulated in qualitative terms (very important, "so-so", least important and not important). In order to make some reasonable estimate of the weighted-average response, we have attached certain percentages to their importance (very important=100%, non-important=0%, not very important = 10%). The category "so-so" has been derived as residual, which imposes consistency on the respondents' answers with respect to their saving and consumption behaviour. In other words, 35% serves as quantitative equivalent of the response "so-so", ensuring that propensity to save and

consume would add up to 100. This is very rough approximation, as there are other combinations of percentages that would generate different propensities.

Table 8.13 - Saving and consumption behaviour of remittance-recipients

	Saving	Consumption
0%	60.5	7.7
100%	13.7	74.1
35%	16.6	14.5
10%	9.2	3.7
Weighted average	20.4	79.5

The weighted average of the responses generates an estimate of the propensity to save of 20.4 percent. Such an estimate is at odds with the existing body of the empirical literature, which suggests that the propensity to save out of remittance income is high (almost 40%). Yet, this is in line with the propositions of the permanent income hypothesis, as it is quite possible that Macedonian remittance-receiving households consider remittances as a permanent income stream and tend to consume more. This is fully consistent with the answers of the migrant families that they expect stable streams of remittance inflows in near future.

Then, based on survey results we analyze the structure of consumption, financed by the inflow of private transfers (Table 8.14). We classified immediate consumption, purchase of cars (durable goods), housing maintenance, loans and unspecified spending as current spending, whereas construction of homes, business start-ups, real estate purchase and portfolio investment into capital spending. For consistency purposes, we used the same numerical values for the qualitative answers for derivation of the weighted average response.

Such classification enables us to introduce the distinction between current and capital spending, which could serve as indicator of the nature of the remittance inflow. Current spending comprises 63.8%, whereas capital spending amounts to 15.8% of the total income from private transfers. The composition of spending indicates that nearly 20% (19.8%) could be qualified as capital transfers, whereas more than 80% (or 80.2%) could be defined as current transfers. This estimate is close to the IMF (2007) estimate of the final use of private transfers, which attaches 75% to current and 25% to capital transfers.

Table 8.14 - Weighted average responses for the uses of private transfers

Composition of spending and saving	0%	100%	35%	10%	Weighted average
Current spending					63.8
Immediate consumption	69.2	5.6	17.0	8.3	12.4
Cars (durable goods)	90.2	1.5	4.8	3.6	3.5
Routine housing maintenance	70.8	5.7	13.5	10	11.4
Loans	97.3	0.2	1.0	1.5	0.7
Unspecified spending					35.8

Capital spending					15.8
Construction of homes	85	8.8	4.7	1.5	10.6
Business start-up	92.7	2.6	2.6	2.1	3.7
Real estate	98.3	0.7	0.3	0.7	0.9
Portfolio investment **	98.4	0.3	0.6	0.7	0.6
Saving					20.4
Total income from private transfers					100.0

Note:

** Some authors classify portfolio investment into saving, given that it does not affect country's capital stock.

From subnational perspective, in the next step, we use the number of remittance-receiving respondents to derive an estimate of annual remittance inflows in separate regions of Macedonia.

Table 8.15 - Extrapolated remittance inflows across regions in Macedonia

Region	Number of respondents	In percent	Extrapolated remittance inflows (in millions of US \$)
Skopski	106	10.1	30.5
Pelagoniski	141	13.5	40.7
Ohrid	210	20.1	60.7
Polog	340	32.5	98.1
Povardarie	31	3	9.1
Kumanovski	67	6.4	19.3
Bregalnicky	151	14.4	43.5
Total	1046	100	301.8

9. Initiatives regarding Remittances and Diaspora Linkages

9.1. An Overview

In this section, we evaluate a range of initiatives that could be undertaken to increase the volume of remittances and enhance their impact on economic growth and development. We also review initiatives that can strengthen linkages between Macedonia and its diaspora communities and intensify diasporan economic involvement. Diasporas contribute to their home country not only through monetary remittances, but also through direct investment and non-monetary contributions such as human capital transfers, technology transfer, trade opportunities, and market opening.

It is important to keep in mind that there are two distinct types of Macedonian diaspora communities. Diasporan communities are either “old” (descended from Macedonia during the former socialist regime) or “new” (emigrants who began to leave Macedonia starting from its independence). The old diaspora is more organized and has long-established institutions representing it politically, socially, and economically. Its capacities to take collective action on behalf of Macedonia are high. The new diaspora is much less well organized.

9.2. Data and Research Issues

Reports on remittances have emphasized the importance of improving the knowledge base on remittances and their economic impacts, and the situation is the same in the Macedonian case. Although this report has made some contributions to knowledge on Macedonian remittance flows, much needs to be done.

- ***Data quality, availability, and accessibility should be improved.*** This can be accomplished through the following actions:
 - a). The IMF and World Bank need to work with the Macedonian authorities to review and improve the quality of data and methodologies used to estimate remittances. Although the statistical authorities are doing a very good job with the resources available to it, some improvements could be made at low or no cost. The NBRM could use data sources that are not available on a regular basis (such as this survey), and it would be worthwhile to assist the institution to update that information, particularly as the information sheds light on how remittances are used by Macedonian households.
 - b) The household survey (HLS) should be expanded to include questions on access to and use of the formal financial sector.
 - c) The problem of underreporting of remittance transfers in the HLS needs to be addressed. Every effort should be made and creative approaches taken, to encourage households to accurately report their incomes to the survey.

d) The State Statistical Office should provide easier access to HLS data. The World Bank web site page that provides information on HLSs that it supports around the world notes that for Macedonia and some other countries, “a substantial proportion of data requests have been denied, left unanswered, or answered affirmatively only after substantial delays.”²¹ HLS data should be made widely available to researchers and the public by posting it on the World Bank or State Statistical Office web site.

e) Macedonian migration survey should be carried out by an organization experienced in this activity. Little systematic data is available on this topic that is so important to Macedonia. The IOM offers a good template for a migration survey. This template should be augmented with questions aimed at illuminating remittances and their impacts.

f). Macedonian embassies must take stronger initiatives in registering the Macedonian emigrants worldwide. To our knowledge, the Agency for Emigration also posses a large database, but the data quality needs to be ensured through regular updates.

- *More research should be carried out on the characteristics, uses, and impacts of remittances, and this research should inform public policies and donor activities.*

a) A very valuable database, the household survey, is already available to carry out such research, and previous research that provides a guide to doing such research has been identified in this paper. HLS data should be used to carefully analyze:

- The inequality impacts of remittances. A study could be done developing a no-migration counterfactual scenario. It might also be possible to do a study using the approach of Stark et al (1988) to assess where Macedonian communities are in the emigration lifecycle. In other words, the upswing and downswing of Macedonian emigrants in certain years (or the life cycle of emigration) can be explained by a set of variables which capture relative wage effects, industrialization, demographic forces, and chain migration;
- The characteristics of households receiving remittances, and the impact of remittances on labor supply;
- The impact of remittances on savings and/or physical capital accumulation;
- The impact of remittances on education.

b) In order to inform public policies, it is not enough simply to carry out research and produce papers. The research must reach a domestic Macedonian audience, including government policymakers. Macedonia needs a think-tank that is staffed by qualified economists capable of understanding and producing quality research (particularly quantitative research.) Such a think-tank should be supported by a group of highly-qualified western economists who will work collaboratively with the Macedonian researchers and provide peer review. It is essential that the think-tank have effective channels of communication with government officials and the media. It is also essential that the think-tank become institutionalized, sustainable, and viewed as an asset to the Macedonian government and public.

²¹ See <http://www.worldbank.org/lsm/>

9.3. Initiatives Specific to Monetary Remittances

Generally speaking, initiatives affecting remittances can affect three things: the volume of remittances, the use (allocation) of remittances, and the distribution of and access to remittances. It is quite conceivable that a particular initiative could affect more than one of these. One key point that must be respected about remittances is that they are small-scale private transfers that are completely under the control of households, and efforts to increase their volume and/or alter their allocation must rely on changing incentives in an effort to correct a market failure or promote competition.

Areas where initiatives could be undertaken are:

- ***Lowering transactions costs.*** Formal-sector transactions costs are not a major issue with respect to remittances from Macedonian diaspora communities. However, fees are rather high on remittances from western countries. Our overall impression is that market-driven processes are working rather well in Macedonia and that trust and confidence in the banking system is much more important than transfer costs.
- ***Extending the availability of financial services to poor people and rural areas.*** The extent to which various population groups lack access to the formal financial sector is not yet clear. Macedonia is a small country with a reasonably well-developed transport network. Data needs to be collected through the household survey, microfinance institutions, and other channels in order to assess whether access is an important issue or not.
- ***Bringing remittances into the formal financial sector.*** It is often argued that this should be an important goal of programs to enhance remittances and their impacts on growth development. However, empirical evidence on remittance use suggests that a large proportion of remittances are in fact already saved into housing, land, education, and small businesses. There are two arguments that can justify seeking to bring more remittances into the formal financial sector. First, financial institutions should have a much wider knowledge of productive investments than an individual family and should be able to identify investment projects providing higher returns. Second, these higher returns should attract an even higher level of investment than currently prevails. For these arguments to work, it must be the case that the financial sector is functioning well. Transition financial sectors are plagued with well-known problems that hurt efficiency, erode public trust, and lead to low levels of financial intermediation. The level of intermediation in Macedonia is still low in comparison with the advanced transition economies.

USAID and other donors have already funded several projects that are designed to directly strengthen the financial sector. Projects assisting the government to develop economic analytical capacities indirectly support this effort by aiding the maintenance of macroeconomic stability and resistance to introducing distortionary policies that could lead to financial repression. Unfortunately, there are no magic bullets that can rapidly

speed up strengthening of the banking sector, and many of the initiatives that would be helpful require exertion of serious political will. The collapse of confidence in formal financial institutions during early transition is taking a long time to rebuild in all transition countries. There are signs that the Macedonian banking sector and the products that it offers are developing along lines seen earlier in more advanced transition economies. The most important action that donors can take is arguably to continue to adhere to the set course and be patient.

- ***Encouraging the formation of Hometown Associations.*** Hometown Associations (HTAs) are voluntary civic associations of emigrants who come from the same town or region of their home country.²² They grew rapidly in the 1990s and have become prominent among Mexican and other Latin American emigrant groups working in the United States. HTAs typically pool contributions from emigrants to fund projects in health, education, public infrastructure (roads, utilities, churches, cemeteries,) and recreation. They play an active role in identifying, planning, and implementing these projects. HTAs have not so far been much involved in funding “productive” (business) projects that directly generate income and employment. HTAs typically have limited fundraising abilities but often work in very small communities in which their contributions are very large compared to municipal public works budgets. An important merit of HTA projects is that they are fully “owned” by the funders and communities receiving them. In recent years, the Mexican and El Salvadorean governments have begun formal programs to match HTA donations with public funds. These experiences could be valuable for Macedonia, as they enhance the impacts of remittances on growth and development.

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ANNEXES

Table 1: Population born in Macedonia living abroad by status

	Census year	Foreigners	Nationals	Unknown	Total
Australia	2001	2894	40072	561	43527
Austria	2001	11736	2154	58	13948
Belgium	2001	38	8		46
Canada	2001	1545	5785		7330
Czech Rep	2001	406	124	3	533
Denmark	2002	1301	306		1607
Finland	2000	22		1	23
France	1999	1798	762		2560
Greece	2001	662	274		936
Hungary	2001	49	24		73
Ireland	2002	34	1		35
Italy	2001	24534	339		24873
Japan	2000	15			15
Luxembourg	2001	243	11		254
Mexico	2000			2	2
Netherlands	1995-2000	16	7		23
New Zealand	2001			591	591
Norway	2003	361	354		715
Poland	2001	72	132	0	204
Portugal	2001	9	3		12
Slovak Rep	2001	103	50	3	156
Spain	2001	185	20		205
Sweden	2003	1068	1903		2971
Switzerland	2000	39816	1690		41506
Turkey	2000	1355	30160		31515
United Kingdom	2001			1285	1285
United States	2000	9015	9980		18995
Total:					193940

Source: OECD online database.

Table 2: Macedonian migration in Germany

	1995	1996	1997	1998	1999	2000	2001	2002
Stock	33984	38774	42550	46167	49420	51841	55986	58250
Inflow	4000	2835	3060	3051	3503	3411	5421	3913

Source: Statistisches Bundesamt (Federal Statistical Office)

Table 3: Macedonians living abroad in neighbouring countries

	Census year	Total
Bosnia & Herzegovina	2005	2278
Serbia	2002	25847
Croatia	2001	4270
Slovenia	2002	3972
Bulgaria	2001	5071
Albania	1989	4697
Total:		46135

Source: National statistical offices.

Table 4: International migrations

	1998	1999	2000	2001	2002	2003	2004	2005
Immigrants	1057	1118	1199	1185	1257	1145	1381	3638
- Citizens of Macedonia	595	658	639	458	723	567	543	524
Emigrants	248	141	172	503	141	144	669	1300
- Citizens of Macedonia	241	127	165	312	81	112	656	1282
Net migration	809	977	1027	682	1116	1001	712	2338
Net migration of citizens	354	531	474	146	642	455	-113	-758

Source: State Statistical Office of the Republic of Macedonia.

NOTE: