CHAPTER 10

International labour movements

Introduction

10.1 International labour movements have increased due to, among other things, opening of borders and markets, cheaper transportation and the growing practice of international contracting. This development poses challenges both to measurement and to analysis of the national accounts, many of which are described in the case studies annexed to this chapter.

10.2 The types of employment differ and may involve employers or contracting agencies in other countries - some persons may even have contracts with agencies in more than one country or be intermittently employees and self-employed. Consequently international labour movements cover more than the movement of persons seeking employment with an employer in another country – what is often called "labour migration". Movement of both foreign workers in an employer/employee relationship and foreigners who work in another country in some self-employed capacity is included in international labour movements, and these categories include people who are treated statistically as part of the labour force in the country in which they are working, as well as people who are part of the labour force in their country of origin (that is, they are considered to be resident there despite working abroad).

10.3 Identifying the types of employment may be difficult. A distinction is made between employees (people in an employer/employee relationship, whose earnings are treated as compensation of employees) and workers who do not have an employment contract, who are deemed to be self-employed producers of services. In addition, not all employment is registered, so that there may be severe problems of coverage and classification in statistics on employment of persons from other countries.

10.4 Among the specific measurement problems encountered are:

a. Employment through international hiring agencies, which makes the measurement of labour compensation and remittances difficult.

b. Movement of labour as part of international contracting – for example, specialized labour in connection with turnkey projects.

c. Movement of workers for short-term work within MNEs.

d. Work of foreign persons directly employed, when they operate as a sole proprietor. Such persons may for example perform short-term work for households or small firms, and may not be registered.

e. Unregistered work of foreign persons who were originally given permission to work in the country for a limited period, but remain in the country after the permission expires.

10.5 The most common measurement problems and their impact on the national accounts and the balance of payments are presented below. Possible solutions are suggested, based on experience in various countries.

10.6 The increase in international labour movements also means that the analysis of labour input and productivity in the national accounts has become more complicated, and additional analytical tools may be necessary in order to understand economic developments. A presentation of data linking labour statistics and national accounts is proposed, using a social accounting matrix framework. This presentation should facilitate the assessment of the impact of international labour movements on the national accounts – including the impact on productivity, wages, workers' remittances, household expenditure, GDP and national income. The presentation could be in a satellite account or a labour account integrated into the national accounts.

Background

10.7 In recent decades international labour movements have increased following the opening of borders and markets (for example as a result of the establishment and enlargement of the European Union, or of various bilateral or multilateral international agreements on trade and

movement of persons), cheaper transportation and easier international communication.

10.8 On the one hand the opening of markets has led to increases in outsourcing abroad and global manufacturing, which do not necessarily involve international labour movements, and may indeed reduce the movement of labour. For example call centres of American car rental firms, telephone companies, or software and computer services enterprises may be placed in India, the Philippines or other foreign countries, so that customers in fact get services directly from employees in another country. However, there may be a flow of workers if the global manufacturing involves goods and services that are not easily sent across borders – construction, personal services – or involves services where there is a danger of leaks or spill-over of knowledge (R&D, innovation), which may put at risk the revenues of the enterprise. There may be a problem of coverage of such movement, since the individuals may be hired by a foreign employer, and also may receive all or part of the compensation for their work in another country.

10.9 Other issues that may be linked to global activities are services rendered by foreign self-employed persons, for example lawyers, architects or accountants. The services may be contracted to a foreign enterprise which is an MNE, so that it may be difficult to estimate the value of the services rendered to the compiling economy.

10.10 One main problem in these connections is the need to identify whether there is an employer-employee relationship between the foreign worker and an entity in the country in which he or she is working. If there is no employer-employee relationship (that is, a service contract is the basis for the provision of labour), the transactions will be recorded under imports of services by the country in which the work is being done, and exports of services by the country in which the worker (or his employer if he was sent by him) is resident for statistical purposes (this is called mode 4-type trade in services in the *Manual on Statistics of International Trade in Services, 2010* (MSITS 2010)). If there is an employer-employee relationship, remuneration of the labour will be recorded as compensation of employees in the income account.

10.11 This problem has been explained in depth in an issues paper prepared for the May 2009 meeting of the Group of Experts on the Impact of Globalization on National Accounts (Magdeleine and Maurer, 2009). Thus:

"Trade in services through presence of natural persons (mode 4) and labour mobility may be distinguished by the type of contracts underpinning the transactions. While employment contracts are related to labour mobility, mode 4 is defined by the fact that it is a service contract that takes place between the supplier and the consumer of the service (i.e. trade in services).

The absence of clear operational criteria for the statistical measurement of mode 4 and what are the commonalities and mainly the differences with the concepts of labour mobility (short-term and long-term) adds a difficulty for using appropriate information when focusing on one aspect or the other. The use of inappropriate indicators for measuring mode 4 trade in services (i.e. compensation of employees and workers' remittances data drawn from the balance of payments) is an illustration of confusions around definitions, be it legal or their translation into statistical concepts.

As a consequence reliable and internationally comparable information for short-term labour mobility and trade in services (mode 4) is lacking. A crucial issue to distinguish between the two aspects is the difference between employment and services contracts, in particular for self-employed and for labour services provided via employment agencies. For the latter an additional difficulty may be to establish the type of services provided (e.g. agricultural services, mining services, accountancy)."

10.12 If the activity is within an MNE and involves transfers of services within the firm, there may be special problems of estimating the value of such services, since the payment for the services is not necessarily in terms of market prices – the problem of transfer prices, which may differ widely from market prices, is discussed elsewhere in this guide, especially in Chapters 2, 7 and 8.

10.13 On the other hand the opening of borders has led to an increased movement of persons seeking employment in foreign countries. In particular, people in occupations where expertise can easily be transferred to foreign countries, such as construction, nursing, and caring for the elderly, where the skills are not country-specific and language is of secondary importance, seek employment abroad to obtain improved income and living standards. Significant parts of such labour may not be registered, and may not be covered in regular statistics. Some of the persons are hired by employment agencies, and may be compensated partly abroad, so that the measurement of labour compensation, remittances

and trade in services becomes difficult. Other migrants may work for short periods as self-employed plumbers, decorators, cooks, etc. for households or small enterprises, and this work may not be registered. In many cases such persons may arrive as registered foreign workers, but choose to stay on after the work permit expires and engage in unregistered work.

10.14 The problems are not confined to short-term international labour movements. Thus if persons are unregistered and stay longer than a year in a country (which is the usual criterion for classification as resident), they may not in practice be classified as residents and covered in the population statistics. Since population statistics are at the basis of household surveys, the coverage of labour and consumption expenditure of residents will be incomplete.

10.15 All these problems of undercoverage and misclassification of transactions affect estimates of GDP, productivity, final uses, income and international transfers.

Definitions and statistical recommendations: is terminology consistent?

10.16 Various statistical frameworks contain definitions related to international labour movements.

10.17 Definitions on types of migration given in the framework of population statistics are relevant in the first place for statistics on international labour movements. The United Nations *Recommendations on Statistics on International Migration* (Revision 1) use the term "country of usual residence" to mean *"The country in which a person lives, that is to say, the country in which he or she has a place to live where he or she normally spends the daily period of rest. Temporary travel abroad for purposes of recreation, holiday, visits to friends and relatives, business, medical treatment or religious pilgrimage does not change a person's country of usual residence".*

10.18 The population statistics framework also distinguishes between:

i. Long-term migrants: *"persons who move to a country other than that of their usual residence for a period of at least a year (12 months), so that the country of destination effectively becomes their new country of usual residence".*

ii. Short-term migrants: *"persons who move to a country other than that of their usual residence for a period of at least 3 months but less than a year (12 months) except in cases where the movement to that country is for purposes of recreation, holiday, visits to friends and relatives, business, medical treatment or religious pilgrimage. For purposes of international migration statistics, the country of usual residence of short-term migrants is considered to be the country of destination during the period they spend in it".*

10.19 In connection with short-term movement, it should be made clear that foreign business travellers are defined in population statistics as *"foreign persons granted the permission to engage in business or professional activities that are not remunerated from within the country of arrival. Their length of stay is restricted and cannot surpass 12 months".*

10.20 Within the population statistics, categories of transients not relevant for international migration are also mentioned. A category relevant for the statistics on international labour movements is foreign border workers, namely *"foreign persons granted the permission to be employed on a continuous basis in the receiving country provided they depart at regular and short intervals (daily or weekly) from that country".*

10.21 The publications of the International Labour Organization (ILO) on labour statistics use the term labour mobility only for movement of members of the labour force between domestic areas or industries. The term labour migration is reserved for movement of labour from one country to another with the objective of employment with an employer in the other country. The stock of foreign workers in a country is defined as those foreign citizens who at a particular date or during a specific reference period would be counted as being economically active in the country, as employed or unemployed, according to the ILO guidelines for the measurement of the economically active population. The economically active population is defined by an ILO Resolution adopted by the Thirteenth International Conference of Labour Statisticians (October 1982)) as comprising *"all persons of either sex who furnish the supply of labour for the production of economic goods and services as defined by the United Nations systems of national accounts and balances during a specified time-reference period"*. This stock definition includes within the economically active population employed, unemployed and underemployed persons, and seems to be different from and more inclusive than the flow definition.

10.22 The national accounts concepts are intended to be harmonized with the definitions in

both the population statistics and labour statistics frameworks.

10.23 Chapter 19 in the 2008 SNA mentions this harmonization:

"Clearly, if a ratio is to be formed between measures of output and labour input, the concept of labour used must match the coverage of production in the SNA. The relevant standards on the labour force are maintained by the International Labour Organization (ILO). The ILO standards are contained in "resolutions", which are adopted by sessions of the International Conference of Labour Statisticians (ICLS). The resolution of 2008 confirms that the economically active population is defined in terms of individuals willing to supply labour to undertake an activity included in the SNA production boundary.

Not everyone who is economically active works for a resident institutional unit. It is therefore particularly important that the concept of residence underlying the population estimates is consistent with that for labour force estimates and that the residence of individuals included in employment estimates is consistent with the criterion of resident institutional unit in the SNA" (paragraphs 19.5-19.6).

10.24 The concept of residence in the national accounts is described in chapter 26 of the 2008 SNA:

"The residence of each institutional unit is the economic territory with which it has the strongest connection, expressed as its centre of predominant economic interest.

An institutional unit is resident in an economic territory when there exists, within the economic territory, some location, dwelling, place of production, or other premises on which or from which the unit engages and intends to continue engaging, either indefinitely or over a finite but long period of time, in economic activities and transactions on a significant scale. The location need not be fixed so long as it remains within the economic territory. Actual or intended location for one year or more is used as an operational definition. …Most units have strong connections to only one economy but with globalization, a growing number have strong links to two or more economies" (paragraph 26.36).

10.25 The definition of residence of households is relevant in connection with international labour movements:

"A household is resident in the economic territory in which household members maintain or intend to maintain a dwelling or succession of dwellings treated and used by members of the household as their principal dwelling. If there is uncertainty about which dwelling is the principal dwelling, it is identified from the length of time spent there, rather than other factors such as cost, size, or length of tenure. Being present for one year or more in a territory or intending to do so is sufficient to qualify as having a principal dwelling there" (paragraph 26.37).

10.26 The 2008 SNA also mentions specific cases, some of which are relevant for the issue of international labour movements:

"Crew of ships, aircraft, oil rigs, space stations or other similar equipment that operate outside a territory or across several territories are treated as being resident in the territory of their home base. The home base is determined by where they spend most of their time when not undertaking their duties. This location may not be the same as that of the operator of the mobile equipment (paragraph 26.38 c).

Cross-border workers. There is no special treatment for these workers. The residence of the persons concerned is based on the principal dwelling, rather than the territory of employment, so employees who cross borders to undertake a job still have their residence determined from their principal dwelling" (paragraph 26.38 e).

10.27 The 2008 SNA divides the labour force according to residence:

"The labour force consists of four groups of persons; residents who are employees of resident institutional units, residents who are employees of non-resident institutional units, unemployed residents and self-employed persons. (A self-employed person is necessarily associated with a resident household. If such a person provides goods and services abroad, these are recorded as exports.) Employment in the SNA is defined as all persons, both employees and self-employed persons, engaged in some productive activity that falls within the production boundary of the SNA and that is undertaken by a resident institutional unit" (paragraph 19.19).

10.28 Since resident producer units may employ both residents and non-residents, the following guidelines are given:

"Population numbers are dependent on the residence of individuals but employees do not have to be resident in the economy where they work. The results of the activity of producer units can be compared with employment only if the latter

includes both the residents and the non-residents who work for resident producer units. Employment mainly consists of resident employees working for resident institutional units and self-employed persons. However, it also includes the following categories where there might be a question about whether they are considered resident or not:

(a) non-resident border workers (sometimes called frontier workers), that is, persons who cross the border each day to work as employees in the economic territory;

(b) non-resident seasonal workers, that is, persons who move into the economic territory and stay there for less than one year in order to work in industries which periodically require additional labour;

(c) members of the country's armed forces stationed in the rest of the world;

(d) nationals who are on the staff of national scientific bases established outside the geographic territory of the country;

(e) nationals who are on the staff of diplomatic missions abroad;

(f) members of the crews of fishing boats, other ships, aircraft and floating platforms operated by resident units;

(g) employees of general government bodies situated outside the geographic territory, for example embassies;

(h) students undertaking employment are included or not according to their classification as resident or non-resident (paragraph 19.32).

On the other hand, the following residents, though employees, are excluded from employment in residential institutional units:

(a) residents who are border workers or seasonal workers, that is, who work as employees in another economic territory;

(b) nationals who are members of the crews of fishing boats, other ships, aircraft and floating platforms operated by non-resident units;

(c) residents who are employees of foreign government agencies located on the geographic territory of the country;

(d) the personnel of international civilian organizations located within the geographic territory of the country (including local employees directly recruited);

(e) members of the armed forces working with international military organizations located on the geographic territory of the country;

(f) nationals working in foreign scientific bases established in the economic territory" (paragraph 19.33).

10.29 The definitions in BPM6 are consistent with the definitions in the 2008 SNA, although additional details are given. BPM6 clarifies the distinction between employment and supply of services:

"Cross-border compensation of employees arises only when a resident individual is employed by a non-resident or when a resident employs a non-resident individual. Therefore, it is important to establish whether an employer-employee relationship exists between a resident individual and a non-resident employer or between a non-resident individual and a resident employer. An employer-employee relationship exists when there is an agreement, which may be formal or informal, between an entity and an individual, normally entered into voluntarily by both parties, whereby the individual works for the entity in return for remuneration in cash or in kind. The remuneration is normally based on either the time spent at work or some other objective indicator of the amount of work undertaken. If an individual is contracted to produce a given result, it suggests a service contract relationship between the entity and a self-employed. Self-employed individuals are deemed to operate their own unincorporated enterprises, and thus sell output they produce. Self-employed individuals may also employ others. Self-employed individuals are generally responsible for decisions on markets, scale of operations and finance, and are also likely to own, or rent, machinery or equipment on which they work" (paragraph 11.11).

"Several factors may have to be considered in determining whether an employer-employee relationship exists. An important test of whether an employer-employee relationship exists is that of control. The right to control or to direct, both as to what shall be done and how it shall be done, is a strong indication of an employer-employee relationship. The method of measuring or arranging for the payment is not important as long as the employer has the effective control both on the method and the result of the work undertaken by the individual. However, certain control on the work being undertaken may also exist for the purchase of a service. Therefore, other criteria should also be used to define more clearly the employer-employee relationship. If the individual is solely responsible for social contributions, that would suggest that the

individual is a self-employed service provider. Payment of social contributions by the employer is an indication of employer-employee relationship. If the individual is entitled to the same kind of benefits (e.g., allowances, holidays, sick leave) that the enterprise generally provides to its employees, this indicates an employer-employee relationship. Payment of taxes on the provision of services (such as sales tax or value added tax) by the individual is an indication that the individual is a self-employed service provider." (paragraph 11.13).

10.30 Definitions used in tourism statistics in the latest manual *International Recommendations for Tourism Statistics 2008* (IRTS 2008) published in 2010 are harmonized with the 2008 SNA and BPM6. However, tourism statistics classify tourism trips by main purpose, which may be helpful for the collection of data on international labour movements. According to this classification:

"The main purpose of a trip helps to determine whether it qualifies as a tourism trip and the traveller qualifies as a visitor. For instance, as long as it is incidental to the trip, a visitor might earn some income during his/her stay (for example, youths backpacking). Nevertheless, if the main purpose is to be employed and earn an income, then the trip cannot be a tourism trip and he/she cannot be considered as a visitor but as an 'other traveller' (paragraph 3.11).

Each main purpose (except the case of 1.7, Transit) is associated with a group of main activities undertaken during the trip as follows:

1. Personal. This category includes all purposes of tourism trips that are not classified as business and professional…

2. Business and professional. This category includes the activities of the self-employed and employees as long as they do not correspond to an implicit or explicit employer-employee relationship with a resident producer in the country or place visited, [and] those of investors, businessmen, etc…" (paragraph 3.17).

10.31 The MSITS 2010 is consistent with BPM6, and also explains in detail the distinction between employment and supply of services. This manual also proposes a link between the classification of tourism statistics by purpose mentioned above and the classification of migration statistics by duration of stay in the country, thereby creating a classification of data which is especially helpful for distinguishing between the two kinds of transaction in the balance of payments.

10.32 Although there are some slight differences in coverage and terminology, the definitions and recommendations in the various statistical frameworks seem sufficiently harmonized to ensure that the population and labour statistics collected according to UN/ILO frameworks may be used in the national accounts and balance of payments without adjustments. The classifications of persons given in the new manual on services could be rearranged to fit the national accounts categories. Such a rearrangement of categories is proposed in the next part of this chapter, together with an outline of the transactions in connection with international labour movements that are relevant for the domestic economy.

Measurement guidelines in international standards: what are the data sources?

10.33 The guidelines for measurement of labour in national accounts given in the 2008 SNA relate mainly to measurement of the resident labour force. The data sources mentioned in paragraph 19.77 of the SNA are household surveys, such as a labour force survey, establishment surveys, and administrative data (for example, employment associated with a payroll tax). The SNA notes that population census data may also be available, if only infrequently.

10.34 But, as explained above, non-residents employed by resident producers must also be included. The 2008 SNA does not include specific recommendations on this point, but mentions that:

"The problems connected with handling border workers in the national accounts have been described in the section on residence. As far as data sources are concerned, household surveys are likely to include employed persons in the country in which they are surveyed (that is, their country of residence) unless the survey contains specific questions to identify and exclude such workers" (paragraph 19.81).

10.35 BPM6 refers to measurement problems:

"In practice, residence principles are generally not applied to specific individuals, but to broad groups of people. As a result, factors such as intention to stay for one year or more are typically inferred from patterns of similar groups in the past. Some administrative data sources may vary somewhat from statistical definitions of residence. If the variations are significant, some adjustment may be made, or the administrative definition may be

Table 10.1 Inflow of employed immigrants

Country	*2005*	*2006*	*Sources*
Andorra	4,606	3,671	Administrative records and related sources (Ministerio de Justicia e Interior)
Belarus	651	922	Administrative records and related sources (2000-2006: Ministry of Interior)
Ecuador	10,553	11,660	Instituto Nacional de Estadística y Censos
France	8,556	..	Administrative records and related sources (2002-2005: INSEE)
Hungary	72,562	71,128	Administrative records and related sources (Hungarian Central Statistical Office. The data for immigrants were prepared on basis of the registration of the National Research and Methodological Centre of Labour)
Indonesia	50,093	..	Administrative records and related sources (unpublished data from the Ministry of Manpower and Transmigration)
Israel	29,400	32,700	Based on data from border control files (Central Bureau of Statistics, Israel)
Japan	125,430	81,131	International Statistical Affairs Division, Statistics Bureau, Ministry of Justice
Latvia	7,900	11,100	Labour force survey
Macau, China	27,160	52,049	Administrative records and related sources
Morocco	6,602	7,561	Administrative records and related sources
New Zealand	42,360	45,536	Administrative records and related sources (Statistics New Zealand)
Norway	7,866	12,138	Labour market statistics and population statistics (Statistics Norway)
Romania	3,678	..	Administrative records and related sources (OECD, 2001)
Spain	663,185	117,471	Estadística de permisos de trabajo a extranjeros (MTAS)
Ukraine	4,986	6,485	Administrative records and related sources (Employment Office Data)
United States	246,877	159,081	U.S. Department of Homeland Security, Office of Immigration Statistics

Source: ILO, LABORSTA database.

considered as an acceptable approximation in practice" (paragraph 4.129).

10.36 The manual on trade in services also suggests various collection methods:

"A number of complementary sources could be used to collect other statistics relevant for analyzing trade in services, in particular for the variable number of persons for assessing mode 4. Various sources exist for collecting this information, such as data obtained from migration authorities or other administrative sources (population registers, permit data, visas), census data (which could be used as a benchmark), household, enterprise, labour force surveys or border/passenger surveys. However appropriate questions would need to be developed in order to identify the information of interest from a trade in services perspective" (paragraph 5.101).

10.37 Altogether specific guidelines in manuals on measurement of international labour movements and trade in services involving movement of persons are few, and common problems with data sources are not dealt with.

10.38 However, in recent years measurement problems such as those mentioned in the introduction to this chapter have been acknowledged by the international institutions, and some efforts have been made to overcome them.

10.39 Thus it has been recognized that administrative data often lack coverage, and consequently the ILO, in collaboration with the World Bank and Eurostat, has developed data modules for household surveys including labour force surveys, with the aim of improving data on economic characteristics and employment conditions of labour migrants. They contain a series of questions to be added to existing household/labour force surveys, with sections suitable for origin and destination countries, allowing countries to adapt the module to their specific context. The complete module contains approximately 200 questions. However, prioritization of questions provides some guidelines for shortening the module and allows countries to drop questions already asked on existing household surveys. Since its development in 2005-2006 the module has been tested in a few countries (Armenia, Thailand, Egypt, Ecuador and Moldova), but improvements are still planned.[39]

[39] More information on ILO migration module available from: www.ilo.org/dyn/migpractice/migmain.showPractice?p_lang=en&p_practice_id=42

10.40 The World Bank and the International Organization for Migration also conduct or sponsor household surveys with migration modules. Examples of such surveys conducted in Moldova and Ukraine are described in annexes 10.4 and 10.5.

10.41 It should also be mentioned that the IMF, together with a group of compilers referred to as the "Luxembourg Group", prepared a remittances compilation guide in 2009, which provides a list of possible questions that could be added to household surveys including questions on international labour movements (see Chapter 11 for information on the work of the Luxembourg Group in measuring remittances).

Experience with measurement problems

Available data on international labour movements

10.42 Data on international labour movements are relatively sparse, but data for some countries are presented by the ILO (see table 10.1), most of them based on administrative records. (The ILO data cover only labour migration, that is the movement of persons seeking employment with an employer in another country.)

10.43 The OECD also maintains a database on inflows of foreign workers (see table 10.2). The OECD's website says that most of the statistics in

Table 10.2 Inflows of foreign workers into selected OECD countries

Thousands

	1999	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*
Australia										
Permanent settlers	27.9	32.4	35.7	36.0	38.5	51.5	53.1	59.5	60.8	65.4
Temporary workers	37.0	39.2	36.9	33.5	36.8	39.5	48.6	71.2	87.3	110.6
Austria	18.3	25.4	27.0	24.6	24.1	24.5	23.2	22.6	29.6	35.2
Belgium	8.7	7.5	7.0	6.7	4.6	4.3	6.3	12.5	23.0	25.0
Canada	107.1	116.6	119.7	110.9	103.2	112.6	122.7	139.1	164.9	192.5
Denmark	3.1	3.6	5.1	4.8	2.3	4.3	7.4	13.6	17.2	7.6
Finland	..	10.4	14.1	13.3	13.8	15.2	18.7	21.0	23.0	25.0
France										
Permanent workers	6.3	6.0	8.8	7.5	6.5	6.7	8.6	10.0	16.8	22.7
Temporary workers	5.8	7.5	9.6	9.8	10.1	10.0	10.4	10.7	9.9	9.9
Germany	304.9	333.8	373.8	374.0	372.2	380.3	..	..	..	..
Hungary	29.6	40.2	47.3	49.8	57.4	79.2	72.6	71.1	55.2	42.5
Ireland	6.3	18.0	36.4	40.3	47.6	34.1	27.1	24.9	23.6	13.6
Italy	21.4	58.0	92.4	139.1	..	..	75.3	69.0	150.1	..
Japan	108.0	129.9	142.0	145.1	155.8	158.9	125.4	81.4	77.9	72.1
Luxembourg	24.2	26.5	25.8	22.4	22.6	22.9	24.8	28.0	31.0	31.1
Netherlands	20.8	27.7	30.2	34.6	38.0	44.1	46.1	74.1	50.0	15.6
New Zealand										
Permanent settlers	5.6	7.8	13.3	13.4	9.2	7.7	14.5	12.9	12.4	12.6
Temporary workers	32.1	35.2	48.3	59.6	64.5	77.2	88.1	106.0	121.5	136.6
Norway	14.0	14.8	17.8	23.5	25.2	33.0	28.3	40.5	54.8	52.5
Poland	17.1	17.8	17.0	22.8	18.8	12.4	10.3	10.8	12.2	18.0
Portugal	4.2	7.8	136.0	55.3	16.4	19.3	13.1	13.8	..	..
Slovak Republic	..	..	..	..	..	3.3	4.7	4.2	..	15.2
Spain	49.7	172.6	154.9	97.6	73.1	155.0	643.3	101.8	102.5	..
Sweden	2.4	15.6	12.6	10.0	10.2	8.5	5.8	11.5	9.6	11.0
Switzerland	31.5	34.0	41.9	40.1	35.4	40.0	40.3	46.4	74.3	76.7
United Kingdom	42.0	64.6	85.1	88.6	85.8	89.5	86.2	96.7	88.0	77.7
United States										
Permanent settlers	56.7	106.6	178.7	173.8	81.7	155.3	246.9	159.1	162.2	227.8
Temporary workers	303.7	355.1	413.6	357.9	352.1	396.7	388.3	444.4	503.9	449.9

Source: OECD website: www.oecd.org

the database are based on the number of work permits issued during the year: *"Settlement countries (Australia, Canada, New Zealand and the United States) consider as immigrant workers, persons who have received a permanent immigration permit for employment purposes. In each of these four countries, it is also possible to work on a temporary basis under various programmes. The data on European countries are based on initial work permits granted, which sometimes include temporary and seasonal workers. Some significant flows of workers may not be covered, either because the type of permit that they hold is not covered in these statistics, or because they do not need permits in order to work (free circulation agreements, beneficiaries of family reunification, refugees). Data for some countries may include renewals of permits. The administrative backlog in the processing of work permit applications is sometimes large (as in the United States, for example), so that the numbers recorded may bear little relation to the demand. The data may also cover initial entries into the labour market and include young foreigners born in the country who are entering the labour market."*

10.44 In the European Union, various studies on international labour movements have been carried out, including estimates of the inflow of foreign labour. But the studies deal mainly with foreign nationals who are residents of the country in which they are working, and estimates are based on labour force survey data.

10.45 It is not clear whether data on persons involved in the supply of mode 4-type services are excluded from such datasets.

10.46 The experience with problems of measurement of international labour movements (or, more narrowly, with labour migration) in individual countries apparently has not often been documented. The solutions found to measurement problems in five countries – the Czech Republic, Germany, Israel, Moldova and Ukraine - are described in the annexes to this chapter.

The impact of measurement problems

10.47 The low coverage of international labour movement statistics and the possible misclassification of transactions involving foreign labour, when it is difficult to identify whether there is an employer-employee relationship or not, affect estimates of GDP, productivity, final uses, income and international transfers.

10.48 The impact of undercoverage of non-resident labour on GDP or productivity will depend upon the ways the production of these employed persons is estimated. For example, where production of unregistered non-resident employed persons is estimated as part of the non-observed economy using data on hours worked, GDP may be understated, but productivity may be less affected. If on the other hand GDP is estimated by other means, productivity may be overstated.

10.49 Since so few data are available, it is difficult to estimate the extent of this impact. In countries where the inflow of labour is large, the impact may be important. The data for Israel show that non-residents accounted for 10.9 per cent of hours worked in 2008, but received only 3.8 per cent of labour compensation. 25.3 per cent were employed as domestic personnel – mostly as carers for the elderly; 23.1 per cent were employed in construction; and 11.0 per cent in agriculture. Their share in these industries was large – for example 41.8 per cent of all employed persons in the construction industry were non-residents - so that the impact on value added and productivity is much larger in these industries.

10.50 Misclassification of trade in services as labour migration (movement of employees) and vice versa will affect GDP, productivity, exports/imports, and income – a description of the possible impact of such a misclassification on national accounts is given in box 10.1.

10.51 Consumption expenditure will also be affected by the measurement problems. Expenditure in the compiling economy of both registered and unregistered employees, and also of employed persons engaged by foreign entities, should be covered, but it may be difficult to obtain such data. They are usually not covered in household surveys, and data from surveys on expenditure of tourists will not be suitable for estimating their consumption expenditure. In cases when the workers bring their families, the impact will be larger. Against this, non-resident labour seems to spend a rather small share of income on consumption in the host country, limiting the impact of the omission. In the case of Israel, estimates of consumption expenditure of non-resident labour account for around 1 per cent of total consumption expenditure.

Possible solutions to measurement problems

Measuring the inflow of labour

10.52 As the country case studies in the annexes show, inflows of labour may be measured by using administrative data, such as data on residence permits, work permits, social security

Box 10.1 The extent of trade in services involving natural persons and the impact on national accounts

A rough WTO Secretariat estimate based on studies carried out by national compilers estimates trade in services through the presence of persons (the product of persons who do not have an employee/employer relationship with an employer in the country where the service is supplied) at around $150 billion in 2005. In comparison, total compensation of employees and workers' remittances received (as an estimate of the amount of transactions resulting from international labour movements) were of the magnitude of around $250 billion, as shown in table 11.1 of chapter 11.

In terms of the number of persons crossing borders in the context of trade in services, no reliable estimate can at present be derived from existing migration or labour statistics sources. However tourism statistics can provide a sense of the size of the phenomenon by showing the number of arrivals of international visitors travelling for business or professional purposes. It would be necessary to refine these figures to identify the persons actually involved in the trading of services, since the tourism definition covers other types of business visitors. It is not clear, however, how well the category of business and professional purposes is identified (i.e. to what extent it does not in practice cover people with an employment contract – thus in many countries entry-exit cards refer to "work", without distinguishing clearly between an employment and a service contract).

The distinction between what constitutes provision of labour and what is provision of a service is difficult. MSITS 2010 provides further clarification regarding the practice in countries: "*It is often the payment of taxes or social security contributions that will determine the perception of individuals involved, along with the way accounting systems record their remuneration and as a consequence how the distinction is made in available sources for statistics (registration in the client economy of a transaction as compensation of employees or payment for a service)*."

Although the impact may often be minor, for some countries where international labour movement is important the distinction may significantly influence macroeconomic aggregates. This phenomenon will increase in importance with the opening of markets for services and labour, as has happened in the European Union. For instance, classifying relevant economic transactions as an export of services by the country of origin of the workers (and an import of services by the host country) may significantly influence GDP (upward if exports, downward if imports). Measurement of value added will be affected as many of these transactions will be classified either as output (if exports) or intermediate consumption (if imports). On the income side, treating the transactions as trade (rather than as compensation of employees) means that they will not be registered under compensation of employees or mixed income. Treating the transactions as compensation of employees, by contrast, will not affect GDP and output, but will be reflected in GNI. The output and intermediate consumption will remain unchanged. Compensation of employees and mixed income will be affected.

Similar questions arise for this distinction within labour or migration statistics. If the distinction is not clearly made between employment and trade in services, one or other category in the host country will be overestimated and the other underestimated. Measures of labour productivity will be affected by whether the persons crossing borders are classified as employees working in the host country or as providers of a service there. The example below is a simple illustration of the influence such a choice may have on single labour productivity measure based on value added.

	Labour mobility	***Trade in services***
Output	1,000	1,000
Intermediate consumption	200	300
Value added	800	700
Employment (hours worked)	20	10
Labour productivity	40	70

Take an economy with a single firm producing 1,000 of output. The intermediate consumption of this firm is 200 leading to a value added of 800. The labour input (half of it assumed to be linked to short-term employment from abroad with the host country being the employer) corresponds to 20 hours worked, leading to a single labour productivity of 40 per hour worked. Now imagine that there has been a mistake in classification, and what had been treated as employment with an employer in the host country has to be reclassified as trade in services (i.e. 10 hours worked were under a service contract with a non-resident institutional unit). The value of the service contract is 100, which leads to a reduction of value added to 700. The new treatment of half the labour input as a service contract leads to a reduction of employee work to 10 hours, raising measured productivity to 70 per hour worked.

Of course in reality these relations are not as clear and other factors tend to influence productivity measurement, in particular multifactor productivity, where intermediate inputs (increased by the reclassification in this example) may have an important role to play.

provide data on compensation of employees.

10.53 Household surveys may also be used, but such surveys mostly cover only residents, and samples are linked to population statistics, so that in most cases they give only a partial picture of the inflow of labour. Probably neither administrative data nor household surveys will cover unregistered labour in a satisfactory manner.

10.54 As annex 10.3 shows, combining individual data on entrances and exits at border control may yield estimates of unregistered labour, but such estimates can only be made if the registrations are of a reasonable quality, and the estimations require many assumptions.

10.55 The measurement of inward labour movements through enterprise surveys has not been explored by the countries whose experience is described in the annexes, but it could be a good alternative, providing a fuller picture of payments and of the productivity of the foreign labour. Enterprise surveys could probably also improve the distinction between compensation of employees and payment for services. It should be possible to focus on industries where non-residents can be employed relatively easily, such as construction, agriculture, etc. However, the problem with this alternative might also be undercoverage of unregistered employment.

10.56 For the national accounts the consumption expenditure of foreign workers within the country is also needed, and since the expenditure patterns of households of foreign workers may be assumed to be different from those of tourists and also from those of residents, data on expenditure of foreign workers need to be collected. But it may be difficult to reach households of foreign workers, especially unregistered workers.

Measuring the outflow of labour

10.57 Measurement of outflows through household surveys may provide better measurement of work hours and wages, and give better information on the nature of employment and kind of activities. Such household surveys could also provide good estimates of consumption expenditure of persons working abroad. As the surveys in Moldova and Ukraine show, unregistered labour abroad may also be covered and identified in household surveys, but it would be interesting to discover if all unregistered labour is captured in the outflows measured in household surveys. The income of unregistered labour may also be underreported, as the report on the survey in Ukraine notes (annex 10.5).

10.58 The Magdeleine and Maurer issues paper mentioned earlier also suggests collecting data by including in household surveys specialized modules or adding questions to existing surveys, or by having specialized surveys targeted at relevant households. The ILO labour migration module mentioned above, which is currently being tested and improved, seems a useful basis for such surveys, although questions might have to be added for national accounts purposes.

The use of partner country data

10.59 Cooperation between countries and mirror exercises to compare inflows in one country with outflows in another could provide fuller information on the activities, income and expenditure of non-residents in a country.

10.60 Sharing data from enterprise surveys in partner countries, with separate data for MNEs, also seems a promising alternative. The data from enterprise surveys would need to include separate information on persons employed or rendering services broken down by their country of origin.

10.61 Information on flows of labour such as the main countries of origin or destination and the main industries employing foreign workers in the host countries may be of help in establishing such cooperation, and in identifying which partner countries are relevant and which industries should be surveyed.

Distinguishing between compensation of employees and trade in services

10.62 The need to distinguish between sales of services, which are part of exports and imports, and compensation of employees, which is part of income, deserves special attention, since the separation of the two kinds of flows may be especially difficult.

10.63 As noted earlier, workers not in an employer/employee relationship with an entity in the country in which they are working are deemed to be producing a service. (This treatment includes the case in which they are employed by an entity outside the host country which has sent them to the host country.) If they are not resident in the country in which they are working, they are deemed to be exporting the service to that country (which in turn records an import of services from the country in which they are resident, or in which the entity which employs and sent them is resident). Capturing activity of this sort is very difficult; probably no approach can provide wholly reliable results. To measure imports of services, the country in which the individuals are working could

develop appropriate questions for inclusion in surveys to enterprises. However administrative sources, entry/exit cards (and a border survey) could also be used, and could help to distinguish between trade in services and employment with an employer in the host country. If migrant workers are an important phenomenon, household surveys could also help to collect information relevant to establishing the status of the migrant workers if the households are employers or consumers of the services which the migrants produce. The same source might capture information on the consumption expenditure of migrant workers.

10.64 For the measurement of services exports, again as suggested above, household surveys could be used to estimate the number of persons (self-employed or not) travelling abroad to provide services. While the self-employed persons themselves are the only reliable source of information for identifying the value of the service contract, administrative sources could also provide useful information, in particular on specific services activities.

10.65 Enterprise surveys would probably be more appropriate to collect information from mode 4-type service suppliers who are not self-employed, but are sent by their employer to work in the host country (both in terms of numbers and value of service contracts).

Analytical problems

10.66 Even if all relevant data on non-resident labour have been collected, there still remain problems of integrating the data on this labour in the national accounts correctly and in a way that allows users to understand economic developments. Users would like to analyse the impact of non-resident labour on productivity, wages, household expenditure, GDP and national income. However, the familiar national accounts aggregates do not allow such analysis. They will for example group resident and non-resident labour together in the production accounts, and combine the expenditure of households of non-resident workers together with expenditure of tourists in household expenditure accounts. This means that

Table 10.3 Classification of persons by type of international labour movement

	Length of stay of persons			
	Border crossed daily or weekly	***More than a week but less than 3 months***	***3 to 12 months***	***More than 12 months***
1. Business and professional (no employer-employee relationship with an entity established in the compiling economy)				
1.1 Contractual service supply				
- self-employed				
- employed				
of which: intra-corporate transfer				
1.2 Negotiations for a service contract or for setting up commercial presence				
- service sales / commercial presence of service-producing company				
- commercial presence of goods-producing company				
1.3 Other (incl. attending meetings, conferences, etc)				
2. Migrant workers and employment-based stay (employer-employee relationship with an entity established in the compiling economy)				
2.1 Intra-corporate transfer				
2.2 Directly recruited by a foreign-established company				
2.3 International civil servants				
2.4 Other				
3. Entrepreneurs and investors settlement				
4. Diplomatic and consular personnel				
5. Crews of fishing boats, other ships, aircraft and floating platforms				
6. Staff of foreign scientific bases established in the geographic territory of the compiling country				
7. Military personnel				

Blue shading indicates the provision of mode 4-type trade in services to the compiling economy.

the national accounts aggregates may lose part of their relevance in a globalized environment.

A proposed analytical framework

10.67 A more detailed presentation of data is proposed, with extended classification of labour input, and with links between labour statistics and the national accounts. The analytical framework often used for such a presentation is the social accounting matrix, as proposed in a paper prepared by the United Nations (Alfieri et al., 2004). Such a presentation could be prepared in a satellite account or as a labour account integrated in the national accounts, and with details added to the core national accounts.

10.68 The detailed categories of inflow of non-residents should be classified to allow their correct inclusion in the national accounts and the balance of payments. The classification given in MSITS 2010, where tourism and migration data are combined, could be adopted (as suggested in the Magdeleine and Maurer paper mentioned above), with some modification. Since the expenditures and remittances of persons crossing the border daily or weekly are usually quite different from those of other groups, it is important to separate them. Other special groups of labour (ships' crews, etc.) must also be distinguished. A proposed classification is shown in table 10.3, where the grey area shows the cases where mode 4 trade in services may occur. Persons staying longer than 12

Table 10.4 Classification of transactions involving natural persons in the national accounts and the balance of payments of the domestic economy

	Persons involved by residence status of the persons concerned with respect to the domestic economy			
	Residents		*Non-residents*	
Framework	*National accounts*	*BoP*	*National accounts*	*BoP*
Institutional units by residence status with respect to the domestic economy, place of activity and type of contract				
1. Resident institutional units				
1.1 Activity within domestic economy				
- contract with self-employed person	Payments for services	Not registered	Imports of services	Imports of services
- employer-employee relationship	Compensation of employees	Not registered	Compensation of employees paid to abroad	Compensation of employees paid to abroad
1.2 Activity in foreign country				
- contract with self-employed person	Payments for services	Not registered	Imports of services	Imports of services
- employer-employee relationship	Compensation of employees	Not registered	Compensation of employees paid to abroad	Compensation of employees paid to abroad
2. Non-resident institutional units				
2.1 Activity within domestic economy				
- contract with self-employed person	Export of services	Export of services	Not relevant for domestic country	Not relevant for domestic country
- employer-employee relationship	Compensation of employees received from abroad	Compensation of employees received from abroad	Not relevant for domestic country	Not relevant for domestic country
2.2 Activity in foreign country				
- contract with self-employed person	Export of services	Export of services	Not relevant for domestic country	Not relevant for domestic country
- employer-employee relationship	Compensation of employees received from abroad	Compensation of employees received from abroad	Not relevant for domestic country	Not relevant for domestic country

months usually will be counted as residents in the compiling economy, and if they are self-employed they will have their main centre of economic interest in the compiling economy, so that they will not be suppliers of imported services.

10.69 Table 10.4 showing how transactions between natural persons and institutional units are recorded depending on the residence of these transactors may make clearer the impact on the accounts.

10.70 It is proposed to prepare labour accounts on employed persons, work hours, compensation of employees and mixed income by industry with subdivisions as shown in table 10.5. (Mixed income is the equivalent for unincorporated enterprises of operating surplus.) The table shown here includes only details on non-residents. Mirror tables for residents employed abroad could also be constructed if needed. It should be noted that the non-resident self-employed are foreign institutional units, so that they are not part of the domestic labour force (the relevant cells are shaded grey). The foreign employees and self-employed who are employed by or have a contract with a foreign institutional unit are also not part of the domestic labour force. They are however included in the table since the information on the activity of all of these persons is of interest - they are active in the compiling economy, and will usually have consumption expenditure there, which must be recorded in its national accounts.

10.71 In addition the relevant parts of the national accounts can be subdivided to correspond to this classification so that flows linked to non-residents' activities can be analysed. Such subdivisions could be made where the accounts relate to production and net value added, household expenditure and income, exports and imports, and income paid and received from abroad. These subdivisions could also be linked to supply and use (SU) tables. Ideally such tables should also be exchanged with partner countries to allow for international comparisons of data. A subclassification by gender may also be helpful in improving the quality of the series.

10.72 Tables 10.6-10.8 provide an example of a labour account and part of the corresponding accounts for compensation of employees paid to workers resident abroad and their household expenditure in the economy in which they are working (using Israeli data). At this stage separate information on self-employed persons who do not cross the border daily or weekly is missing. Data on non-resident employees and self-employed persons working in Israel but who are employed by or have a contract with a foreign enterprise are not available. At this stage it has also not been possible to construct a similar detailed table showing residents employed by foreign institutional units or who are self-employed abroad.

Conclusion

10.73 The challenges to the national accounts due to the increase in international labour movements and trade in services through the movement of persons are not easy to overcome, and new collections of data and new analytical frameworks are needed.

10.74 Some country experiences described in the annexes concern labour migration (the examples of the Czech Republic and Germany also cover trade in services through labour movement). New initiatives provide more insight on this aspect but do not separately identify this aspect of trade in services. Further work is needed to establish reliable sets of statistics on international labour migration and trade in services through the movement of persons. It seems especially important to explore the possibility of international cooperation with the aim of combining different sources of data including enterprise surveys in partner countries, as well as performing mirror exercises where detailed inflows and outflows of the partner countries may be compared.

10.75 The need for improved analytical frameworks may be met by adding social accounting matrices or integrated labour accounts to the familiar national accounts, thereby linking labour statistics and the national accounts. An example of such additions was presented above.

10.76 However, the proposed framework should be tried on data from countries with a different structure of inflow or outflow of labour and services rendered by persons, to ensure that the proposal fits the various analytical problems encountered.

Table 10.5 Employment and income of non-residents active within the domestic economy, by length of stay, and by industry and residence status of the institutional unit employing them or managing their provision of services with respect to the domestic economy

ISIC/NACE code	*A-M*	*A*	*B*	*C*	*D*	..	*M*
Employees	Employed persons						
In resident institutional units							
Border crossed daily or weekly							
Stay one week - 3 months							
Stay 3 to 12 months							
In non-resident institutional units							
Border crossed daily or weekly							
Stay one week - 3 months							
Stay 3 to 12 months							
Self-employed							
Contract with resident institutional units							
Border crossed daily or weekly							
Stay one week - 3 months							
Stay 3 to 12 months							
Contract with non-resident institutional units							
Border crossed daily or weekly							
Stay one week - 3 months							
Stay 3 to 12 months							
Employees	Work hours						
In resident institutional units							
Border crossed daily or weekly							
Stay one week - 3 months							
Stay 3 to 12 months							
In non-resident institutional units							
Border crossed daily or weekly							
Stay one week - 3 months							
Stay 3 to 12 months							
Self-employed							
Contract with resident institutional units							
Border crossed daily or weekly							
Stay one week - 3 months							
Stay 3 to 12 months							
Contract with non-resident institutional units							
Border crossed daily or weekly							
Stay one week - 3 months							
Stay 3 to 12 months							
Employees	Compensation of employees						
In resident institutional units							
Border crossed daily or weekly							
Stay one week - 3 months							
Stay 3 to 12 months							
In non-resident institutional units							
Border crossed daily or weekly							
Stay one week - 3 months							
Stay 3 to 12 months							
Self-employed	Mixed income						
Contract with resident institutional units							
Border crossed daily or weekly							
Stay one week - 3 months							
Stay 3 to 12 months							
Contract with non-resident institutional units							
Border crossed daily or weekly							
Stay one week - 3 months							
Stay 3 to 12 months							

Blue shading indicates data for persons that are not part of the domestic labour force.

Table 10.6 Employment and income of non-residents active within Israel, by length of stay, and by industry and residence status of the institutional unit in which they work with respect to the Israeli economy, 2008

ISIC/NACE code	*A-M*	*A*	*B*	*C*	*D*	*E-F*	*I*	*L-M*
	Employed persons - thousands							
In resident institutional units								
Employees – total	270.7	30.0	11.8	-	62.2	35.4	51.6	79.7
Border crossed daily or weekly	58.6	4.1	9.5	-	25.8	13.0	5.7	0.5
Stay one week - 12 months	212.1	25.9	2.3	-	36.4	22.4	45.9	79.2
In non-resident institutional units								
Self-employed – total	1.8	0.1	0.3	-	0.8	0.4	0.2	-
Border crossed daily or weekly	1.8	0.1	0.3	-	0.8	0.4	0.2	-
Stay one week - 12 months	..	..	..		..	..	..	..
	Hours worked per week - thousands							
In resident institutional units								
Employees – total	12,295.0	1,569.4	581.2	-	2,634.6	1,627.6	2,320.3	3,561.9
Border crossed daily or weekly	2,549.5	198.4	459.3	-	962.8	629.6	279.5	19.9
Stay one week - 12 months	9,745.5	1,371.0	121.9	-	1,671.8	998.0	2,040.8	3,542.0
In non-resident institutional units								
Self-employed – total	75.7	6.0	14.2	-	29.8	17.1	8.6	-
Border crossed daily or weekly	75.7	6.0	14.2	-	29.8	17.1	8.6	-
Stay one week - 12 months	..	..	..		..	..	..	..
	Compensation of employees NIS millions							
In resident institutional units								
Employees – total	13,662.0	1,710.4	698.8	-	3,806.8	2,261.2	2,433.1	2,751.7
Border crossed daily or weekly	2,819.5	162.4	509.1	-	1,274.0	578.0	276.5	19.5
Stay one week - 12 months	10,842.5	1,548.0	189.7	-	2,532.8	1,683.2	2,156.6	2,732.2
	Mixed income NIS millions							
Non-resident institutional units								
Self-employed – total	84.1	4.9	15.3	-	38.2	17.4	8.3	-
Border crossed daily or weekly	84.1	4.9	15.3	-	38.2	17.4	8.3	-
Stay one week - 12 months	..	..	..		..	..	..	..

Table 10.7 Compensation of non-resident employees and expenditure of non-resident employed persons in Israel

NIS millions

	2005	*2006*	*2007*	*2008*
Compensation in Israel of non-resident employees - total	10,472	10,806	12,266	13,662
Border crossed daily or weekly	1,704	1,744	2,177	2,820
Stay one week-12 months	8,768	9,062	10,089	10,843
Expenditures in Israel of non-resident employed persons	4,139	4,090	4,119	4,063
Border crossed daily or weekly	203	231	311	390
Stay one week-12 months	3,936	3,859	3,808	3,673

Table 10.8 Consumption expenditure by non-resident employed persons staying one week to 12 months in 2008

NIS millions

	Total
Restaurants, cafes, pubs	161
Food and beverages	1,017
Real estate activities	1,335
Buses, underground railways	173
Hospitals, clinics, dentistry	35
Pharmaceutical products	40
Footwear	45
Swimsuits and underwear	70
Gold and silver articles	7
Soap, detergents & cosmetics	47
Books, periodicals, other	7
Telephone use	311
Collection and treatment of water	34
Electricity	128
Local authority services	65
Domestic appliances	10
Bedclothes/spreads	3
Products n.e.c.	38
Education services	36
Electronic equipment	90
Legal services	10
Leather products	10
Total consumption expenditure	3,673

Annex 10.1
Measuring the inflow of labour in the Czech Republic

10.1.1 Migration of people for economic reasons is an important economic phenomenon. It is not only a consequence but also a cause of differences in economic development of countries and regions. Migration affects the social and economic situation both in the migrants' countries of origin and in the host countries. The phenomenon is reflected in national accounts as well as in balances of payments.

10.1.2 For the Czech Republic it is a relatively new phenomenon. In the 1970s and 1980s migration to the former Czechoslovakia was covered by intergovernmental agreements with Cuba, Poland and Vietnam. However, the numbers of workers were insignificant. The migration of Czechoslovak citizens to foreign countries was considered to be politically motivated by the then totalitarian regime and was discouraged. Economic cross-border contacts between relatives were possible only through official channels and were readily captured in the balance of payments.

10.1.3 In the 1990s data on cross-border flows were still taken from official sources and were supported by estimates of the new phenomenon of shuttle trade. The transformation and adaptation problems encountered by the statistical service and chaos in legislation did not allow the Czech Republic to capture significant changes, such as the return of many emigrants, the increasing inflow of immigrants and a new wave of short-term emigrants intending to work abroad. The Czech Republic turned from a predominantly emigrant country to a predominantly immigrant country in that period. It became a destination for migrants seeking work. Immigrants now account for about 5-7 per cent of the 5.5 million workers in the Czech Republic.

10.1.4 Since there is no single compulsory registration system for foreigners in the Czech Republic, three independent and overlapping databases are used to obtain data on foreign labour. These databases are operated by (i) the alien police (residence permits); (ii) the employment bureau (work permits), and (iii) trade licensing offices (trade licences). The databases are used to obtain estimates of foreigners by type - employees, entrepreneurs and non-workers (students, children and pensioners), and by country. In addition the number of illegal immigrants not covered in the databases is estimated based on the number of foreigners deported – this is a weak point in the estimates. The results of these estimations are shown in table 10.1.1. ("Entrepreneurs" means foreign workers who do not have an employment contract with an entity in the Czech Republic; the category may include people whose foreign employer has sent them to work in the Czech Republic.)

Table 10.1.1 Number of foreigners in the Czech Republic, 2006

	Non-resident employees (legal)	*Non-resident employees (illegal)*	*Resident employees*	*Resident entrepreneurs*	*Economically non-active foreigners*	*Total*
Euro area	841		9,598	5,280	3,251	18,970
of which: managers	697		7,007	n.a.	2,064	9,768
Other European Union	12,867		88,041	10,776	23,715	135,399
of which: Poland	1,263		12,939	1,385	1,804	17,391
Slovakia*	11,065		73,060	8,512	20,925	113,562
Other countries	55,527		35,950	79,833	35,684	206,994
of which: Western countries	2,021		1,924	1,352	1,759	7,056
Ukraine	35,318		22,356	29,429	8,413	95,516
Russia	4,805		3,457	5,004	4,874	18,140
Vietnam	231		223	27,570	10,935	38,959
Illegal foreign workers	n.a.	7,117	n.a.	n.a.	n.a.	7,117
Total	69,235	7,117	133,589	95,889	62,650	368,480

* Slovakia joined the euro area in January 2009, after the period to which this table relates.

Annex 10.2
Measuring international labour movements into and from Germany

Note: In this annex "outward commuters" are German residents travelling frequently (often daily) to work in another country, or who work in Germany but for allied military, foreign diplomatic, etc. missions. Similarly "inward commuters" are foreign residents travelling frequently to work in Germany, or who work in German diplomatic, etc. missions abroad.

Cross-border compensation of employees

10.2.1 The compensation of outward commuters in the year 2000 totalled €4,080 million and that of inward commuters to Germany totalled €5,680 million.

10.2.2 The gross wages and salaries and employers' social contributions are calculated separately and then totalled to determine the compensation paid to inward and outward commuters. Gross wages and salaries are calculated in principle by multiplying estimates of appropriate average earnings by the number of inward and outward commuters. The average rates of social contributions in relation to gross wages and salaries are used to estimate employers' social contributions.

Number of commuters

Number of outward commuters

10.2.3 In the year 2000, around 94,000 German residents commuted to work outside Germany. This number can be divided into employees of the allied forces and of diplomatic, consular and cultural missions of foreign states and international organizations in Germany, and German residents regularly crossing the border to work in (mainly) neighbouring countries.

10.2.4 Information regarding the number of German employees who work for the allied forces in Germany is available from employment statistics and the Federal Ministry of Finance. In total 20,000 commuters were working for the allied forces in 2000. This was 21 per cent of all outward commuters.

10.2.5 Information on German employees working for international organizations is provided by the Deutsche Bundesbank. Official records show that around 5,000 people were employed in this way in the year 2000.

10.2.6 Figures are also available from the employment statistics on German employees working for other countries' diplomatic, consular and cultural missions in Germany. In 2000, about 3,000 German residents were working in other countries' missions.

10.2.7 The Deutsche Bundesbank compiles data on the number of outward commuters from information provided by the statistical offices or social insurance agencies of the countries with the highest numbers of such commuters from Germany. The figures for Switzerland, Luxembourg, the Netherlands and France total 57,000 persons, representing around 60 per cent of all outward commuters. Calculations are made for the remaining countries on the basis of the population census and microcensus.

10.2.8 During the last population census in Germany it was not possible to attribute some of the commuters to any of these countries. An allowance was added for this group of "long-distance" commuters.

Number of inward commuters

10.2.9 In 2000, a total of 200,000 residents of other countries commuted to Germany for employment. These persons can be divided into cross-border commuters, seasonal workers and local non-German employees of German diplomatic, consular and cultural missions abroad.

10.2.10 Information concerning cross-border commuters from abroad who are required to contribute to statutory pension schemes in Germany is obtained from the German Federal Pension Fund. The data on pension scheme contributions relates to the inward commuters' place of residence. Neither the place of work nor the industry is recorded. An allowance is added to the data from the German Federal Pension Fund for persons who do not have to pay statutory pension scheme contributions.

10.2.11 Data on the number of seasonal workers is derived from the number of work permits issued by the Federal Employment Agency. The number of gainfully employed seasonal workers is calculated using a model based on the figures obtained from the agency. The number of work permits granted is added to the figures, ignoring the number of work permits granted but not actually taken up. In 2000

Table 10.2.1 Number of outward and inward commuters in 2000

Outward commuters	*Number*	*Inward commuters*	*Number*
Cross-border commuters	71,399	Cross-border commuters	130,148
German employees of foreign embassies, consulates and cultural missions in Germany	2,698	Non-German employees of German embassies, consulates and cultural missions abroad	1,830
German employees of the allied forces stationed in Germany	19,875	Seasonal workers	68,383
Total	93,979	**Total**	200,361

around 68,000 seasonal workers were employed in Germany.

10.2.12 The number of foreign nationals employed at German embassies abroad is taken from the federal budget.

Average earnings of outward and inward commuters

Average earnings of outward commuters

10.2.13 The average earnings of German employees of the allied forces stationed in Germany are assessed on the basis of annual information provided by the Federal Ministry of Finance.

10.2.14 The Deutsche Bundesbank compiles information on the earnings of employees of international organizations.

10.2.15 The data on gross annual earnings and numbers of employees contained in employment statistics are used to calculate the average earnings of Germans employed by the diplomatic, consular and cultural missions of foreign countries in Germany.

10.2.16 Figures on the average earnings of outward commuters to Luxembourg, France and Switzerland are supplied to the Deutsche Bundesbank by the respective national statistical offices, and are supplemented by Eurostat data on average earnings in industry in the relevant countries.

Average earnings of inward commuters

10.2.17 Since 1985, annual figures have been compiled by the German Federal Pension Fund on the average earnings of inward commuters (cross-border commuters) classified by country of origin, who are liable to pay statutory pension contributions. These data from the German Federal Pension Fund do not however include the earnings of marginal part-time workers not registered with the Pension Fund and who do not make statutory pension contributions, whose earnings are likely to be below the average, nor of those whose income exceeds the threshold for payment of statutory contributions. A (net) reduction of 2.3 per cent in the average earnings reported by the German Federal Pension Fund allows for these omissions.

10.2.18 Figures on the salaries paid to the foreign employees of German diplomatic, consular and cultural missions abroad are recorded in the annual federal budgets, and are converted to average earnings since the number of employees is known.

10.2.19 The average pay of seasonal workers is estimated on the basis of earnings in Germany. A 10 per cent deduction is made from the earnings

Table 10.2.2 Average earnings in euro of outward and inward commuters in 2000

Outward commuters	*Number*	*Inward commuters*	*Number*
Cross-border commuters	35,678	Cross-border commuters	23,778
German employees of foreign diplomatic, consular and cultural missions in Germany	22,086	Non-German employees of German diplomatic, consular and cultural missions abroad	14,052
German employees of the allied forces stationed in Germany	35,056	Seasonal workers	22,695

recorded in the national accounts since in practice seasonal workers are likely to earn less than the national average.

Employers' social contributions for outward and inward commuters

Employers' social contributions for outward commuters

10.2.20 Employers' social contributions for German employees of the allied forces stationed in Germany are assessed on the basis of German contribution rates. The contributions paid to the insurance funds are allowed for at a rate of 2.5 per cent, based on information from the Federal Ministry of Finance.

10.2.21 The German contribution rates are also applied in calculating the social contributions of employers of German staff at foreign diplomatic, consular and cultural missions in Germany.

10.2.22 Details of the rates used to calculate the employers' social contributions relating to day commuters are provided by the Deutsche Bundesbank in the case of Switzerland, Luxembourg and France. In the absence of information on employers' social contributions for commuters who work in Denmark and Austria, the German contribution rates are applied.

Employers' social contributions for inward commuters

10.2.23 Employers' social contributions for cross-border commuters are assessed on the basis of the average rate of contribution for German employees, applied to the gross wages and salaries of cross-border commuters.

10.2.24 In the case of seasonal workers the average rate of employers' contributions in Germany is also applied.

10.2.25 The employers' social contributions for foreign employees of German diplomatic, consular and cultural missions abroad, although insignificant in size, are estimated from figures in the federal budget in line with the contributions payable within Germany.

Quality and exhaustiveness of estimates of the compensation of inward and outward commuters

10.2.26 To gain an assessment of the quality and exhaustiveness of these estimates, as well as the degree to which they are essential, it is necessary to consider the components which make up the compensation of inward and outward commuters in detail.

10.2.27 The figures on the number of employees of the armed forces, at international organizations and at embassies, are considered very reliable and complete. The model for determining the number of seasonal workers is based on good data and, with the aid of the adjustment for inward commuters who do not have to pay pension scheme contributions in Germany, and given that cancelled work permits are disregarded, these figures provide a full picture of employment in this segment of the labour market.

10.2.28 The figure for cross-border commuters is based, for inward as well as outward commuters, on less reliable statistics, because the social security fund records only employees and remuneration which are liable for payment of earnings-related social contributions. To compensate for this, the number of employees is adjusted upwards and a deduction is made from average earnings. On balance, with the help of these adjustments, the employee structure is now represented fully. However, some of these figures are based on the structures on the German labour market, for example with regard to the earnings of

Table 10.2.3 Selected service items where trade in services through movement of persons may be relevant in the German balance of payments in 2000

€ millions

Title	*Credit*	*Debit*
Engineering and other technical services, including services of architects	2,974	4,190
IT services	4,115	4,963
Activities of self-employed workers	994	3,701
Business services	3,277	5,785
Employee leasing	566	393
Waste removal services	44	112
Repairs to transport equipment	637	1,117
Repairs to buildings and other immobile assets	0	47

seasonal workers.

10.2.29 Illegal workers are not treated as cross-border workers but as residents. Special estimates are made for their employment in restaurants, domestic services and building activities.

Mode 4 trade in services

10.2.30 The mode 4 transactions shown in table 10.2.3, and other similar activities, are, in accordance with international statistical standards, classified as cross-border transactions in services. However, for analytical purposes it may be useful to identify the cross-border labour component and show it, perhaps as a memorandum item, alongside (or aggregated with) compensation of employees who are not resident in the country in which they are working.

10.2.31 The data are taken from the German inquiry on cross-border transactions.

10.2.32 The figures do not present the remuneration of labour, but exports and imports of services including all material costs, etc. They represent a first step in identifying mode 4 transactions.

Final remark

10.2.33 Work on mode 4 transactions is in its infancy. But a first look at the data shows for example that employee leasing accounts for 14 per cent (€560 million out of €4,080 million) of compensation of outward commuters and 7 per cent (€393 million out of €5,680 million) of compensation of inward commuters. These figures show that international labour movement is significantly higher than presented by the conventional measures alone, and is therefore an important matter for further work in the context of globalization.

Annex 10.3
Measuring the inflow of labour in Israel

10.3.1 Israel has had a relatively long experience of an inflow of labour. There has been a continuing large inflow of Jewish immigrants (olim) since the establishment of the state. These immigrants in almost all cases either become Israeli citizens or obtain permanent residence permits at the time of their arrival. This means that the flows are registered, and the activity of such immigrants is also covered by labour force surveys, although they may have been in the country less than a year.

10.3.2 In addition, since 1968 a large number of workers from the Palestinian Authority have been employed within Israel, mostly returning to their homes each day. While most of these workers have work permits, not all do, and the flow of labour is only partly measured in administrative data on work permits or on workers insured by the Israeli National Insurance Institution. However, quarterly labour force surveys, conducted by a statistics unit in the civilian administration in the years 1968 to the mid-1990s, and since then by the Palestinian Central Bureau of Statistics, include questions about work in Israel. The results of these surveys are used to estimate work of Palestinians for the purposes of the national accounts of Israel published by the Israeli Central Bureau of Statistics (ICBS).

10.3.3 Since the mid-1990s there have also been large inflows of foreign workers from countries such as Romania, Ukraine, Thailand, Philippines and China. The first inflows of foreign workers almost always arrived with work permits, but since 2000 many have arrived as tourists and started working without work permits, and others who arrived with work permits have stayed on and worked after the permits expired. Although efforts have been made by the authorities to expel some of the illegal foreign workers, only some are found and sent back to their original country.

10.3.4 Since the numbers involved are large, various methods to deal with the measurement problems have been developed.

10.3.5 The ICBS receives administrative data

Table 10.3.1 Foreign workers who entered with a work permit by main countries of citizenship, end 2007

	Thousands	*Percentage males*
Total	109.6	57
*Asia - total**	*85.0*	*59*
India	2.9	52
Turkey	2.3	99
Nepal	5.8	20
China	11.8	96
Philippines	28.0	15
Thailand	31.2	94
Other countries in Asia	3.0	21
Africa – total	*0.4*	*58*
Europe – total	*23.0*	*52*
Bulgaria	1.7	47
Former Soviet Union**	8.6	30
Germany	0.1	77
UK	0.1	78
Romania	11.5	65
Other countries in Europe	1.0	52
America and Oceania - total	*0.9*	*52*
USA	0.3	66
Other countries	0.5	41
Not known	*0.2*	*71*

* Including Asian republics of the former Soviet Union.

** European republics only.

Table 10.3.2 Estimates of number of foreign workers who entered Israel as tourists by main countries of citizenship, end-2007

	Thousands	*Per cent*
Total	90.4	100
10 leading countries	*67.3*	*74*
Former Soviet Union	26.8	30
Jordan	9.4	10
Mexico	5.9	7
Brazil	4.8	5
Romania	4.5	5
Colombia	3.8	4
Turkey	3.6	4
Poland	3.1	3
Philippines	2.9	3
Egypt	2.5	3
Other countries	*23.1*	*26*

Table 10.3.3 Estimates of non-resident employed persons in Israel by industry, 2008

Industry	*Total*	*Cross-border employed persons (from Palestinian Authority)*	*Registered employed persons from abroad*	*Unregistered employed persons from abroad*
Total	272.3	60.2	76.2	135.9
Agriculture	30.0	4.1	25.9	0.0
Manufacturing	12.1	9.8	2.3	0.0
Electricity and water supply	0.0	-	-	-
Construction	63.0	26.6	11.0	25.4
Wholesale and retail trade	18.0	9.8	0.0	8.3
Accommodation services, restaurants	16.1	2.0	3.2	11.0
Transport, storage, communications	1.7	1.7	0.0	0.0
Banking, insurance, financial	0.0	-	-	-
Business activities	51.8	5.9	2.4	43.5
Public administration	0.0	-	-	-
Education	0.0	-	-	-
Health, welfare, social work	4.0	-	-	4.0
Community and other services	2.5	0.5	2.0	0.0
Domestic personnel	69.0	-	25.3	43.7
Extra-territorial organizations	0.0	-	-	-
Other	4.2	-	4.2	-

The estimates are prepared in the framework of national accounts, where all persons employed by the households (including "Home-care services") are classified together with domestic personnel.

from various authorities on the inflow, outflow and stocks of persons entering with a work permit. The data are usually not consistent, and must be combined using certain assumptions to obtain estimates of foreign workers who entered with a work permit (see table 10.3.1).

10.3.6 In addition, individual data on the inflow and outflow of persons entering with tourism visas are obtained from the border control and examined in order to identify persons overstaying their visa. An estimate of the number of illegal workers is calculated assuming that most of the overstayers from less-developed countries are illegal workers. However, since records of entry and exit do not match, the numbers may be inflated, and an adjustment is applied based on a calculation of the per cent of apparent overstays for each country as the ratio of apparent overstays to tourist arrivals (subtracting those who have adjusted their status). The estimates are published once a year, and are also used in the national accounts published by the ICBS (see table 10.3.2).

10.3.7 For the national accounts the annual average numbers are estimated, and the distribution of unregistered employed persons by industry is estimated using the partial information available and making various assumptions about labour productivity in the various industries (see

table 10.3.3). It should be noted that some of the workers have stayed longer than a year, and should be included in the Israeli population according to international recommendations. However, since they are not covered in the population estimates, nor in the labour force surveys or household expenditure surveys based on the resident population, it seems preferable to include them as foreign workers. Their labour compensation and household expenditure are estimated and added to the figures obtained for residents.

Table 10.3.4 Employee jobs and average monthly wages of workers from abroad, by industry

Monthly average

					Business activities		*Health services*		
	Total	*Agriculture*	*Construction*	*Accommodation services, Restaurants*	*Total*	*of which: Recruitment, provision of personnel*	*Total*	*of which: Home-care services*	*Other industries*
	Employee jobs (thousands)								
1996	79.8	17.0	29.3	4.4	17.5	13.3	2.8	1.1	8.7
1997	83.0	18.5	30.7	4.6	16.4	11.8	3.8	1.7	9.0
1998	79.3	20.1	29.4	4.4	12.0	8.2	5.2	3.2	8.2
1999	76.5	20.4	25.0	4.5	11.7	7.6	5.8	3.5	9.1
2000	78.0	20.6	23.4	4.9	12.5	8.8	7.3	4.5	9.3
2001	88.8	21.9	29.7	4.4	13.8	9.7	9.3	5.7	9.7
2001[(1)]	89.2	22.0	29.9	4.3	13.7	9.6	9.3	6.1	9.8
2002	93.0	22.8	29.8	3.8	16.2	10.8	10.6	7.2	9.9
2003	72.3	23.7	16.7	2.4	10.4	7.6	11.1	7.7	8.1
2004	64.0	24.5	11.2	2.4	7.5	5.9	13.0	10.3	5.4
2004[(1)]	60.1	21.9	10.8	2.2	7.5	6.1	12.6	10.4	5.1
2005	63.1	23.3	10.8	2.0	6.3	5.0	16.0	13.9	4.8
2006	65.9	22.6	11.7	2.0	5.7	4.4	19.4	17.3	4.6
2007	69.9	23.9	10.1	2.0	6.4	5.1	22.7	20.4	4.8
2008	79.9	25.9	11.0	3.3	8.7	6.3	25.5	23.0	5.6
	Average wages per employee job - at current prices (NIS)								
2001	4,042	3,638	4,398	4,629	3,986	3,609	1,927	1,473	5,704
2001[(1)]	3,997	3,529	4,370	4,351	4,061	3,618	1,909	1,472	5,606
2002	4,249	3,787	4,774	4,561	4,068	3,699	1,957	1,606	6,342
2003	4,070	3,814	4,749	4,480	3,842	3,401	1,937	1,671	6,525
2004	3,975	3,826	4,692	4,778	4,552	3,594	1,975	1,726	6,808
2004[(1)]	3,987	3,820	4,727	4,704	4,505	3,561	1,993	1,733	7,019
2005	4,065	3,944	5,156	5,594	4,374	3,023	1,985	1,757	8,135
2006	4,264	4,157	5,539	6,673	5,022	2,430	2,000	1,805	9,094
2007	4,297	4,441	5,888	6,688	4,401	2,424	2,157	1,988	9,241
2008	4,285	4,535	5,790	6,255	3,926	2,542	2,230	2,045	8,951

[(1)] New sample

Table 10.3.5 Estimates of work hours and compensation of employees by residence status in Israel

Year	*Work hours*			*Compensation of employees*		
	Total	*Residents*	*Non-residents*	*Total*	*Residents*	*Non-residents*
	Millions			NIS billions		
1995	80.9	74.0	6.9	144.2	139.7	4.5
1996	85.4	76.0	9.4	170.1	163.2	6.9
1997	88.4	77.1	11.3	192.3	183.5	8.8
1998	90.4	76.9	13.5	212.2	200.6	11.6
1999	93.6	79.9	13.7	232.8	219.3	13.5
2000	97.6	83.8	13.8	256.5	242.4	14.1
2001	97.1	83.7	13.4	268.4	254.9	13.5
2002	98.3	85.3	13.0	270.6	256.6	14.0
2003	98.1	86.3	11.8	265.4	253.3	12.1
2004	98.6	88	10.6	272.4	261.9	10.5
2005	101.5	91	10.5	287.1	276.6	10.5
2006	103.7	93.4	10.3	312.2	301.4	10.8
2007	109.2	98.1	11.1	334.6	322.3	12.3
2008	113.7	101.3	12.4	358.2	344.5	13.7

Annex 10.4
Measuring the outflow of labour in Moldova

10.4.1 Moldova has had a large outflow of labour for many years and various methods have been used to measure the impact on the Moldovan economy. Details on the outflow of labour and remittances are collected in household surveys conducted by the Center for Sociological Investigation and Marketing (CBSAXA) in cooperation with the International Organization for Migration (IOM). The surveys provide detailed information on patterns of labour migration and remittances in Moldova and their impact on individual households and communities. They measure among other things the number of persons who were abroad at the time of the survey while remaining a member of a household in Moldova. The year of their first departure abroad, the destination country and their plans to remain abroad or to make further trips are also measured.

10.4.2 One of the surveys is conducted as a panel survey, so that the behaviour of the persons working in another country compared to their original plans may be followed over time, and their residence status may be determined.

10.4.3 The household survey conducted in 2008 found that 7.1 per cent had worked abroad in the last two years: 56 per cent of these were seasonal workers, who worked abroad for six months or less, and another 14 per cent worked abroad for less than one year. As for future plans, the same amount of seasonal work was planned by the respondents for the coming years.

10.4.4 These measurement methods seem very promising, and could improve data on labour movements. The questionnaires are extensive and cover both current and former members of households. Questions on employment and income are included, and the surveys provide data which are especially difficult to obtain if sources are confined to flows of labour, for example on illegal residence status and monthly income (some of the questions on migration included in the questionnaire are reproduced in table 10.4.1).

10.4.5 Examples of results from the surveys are given in chart 10.4.1.

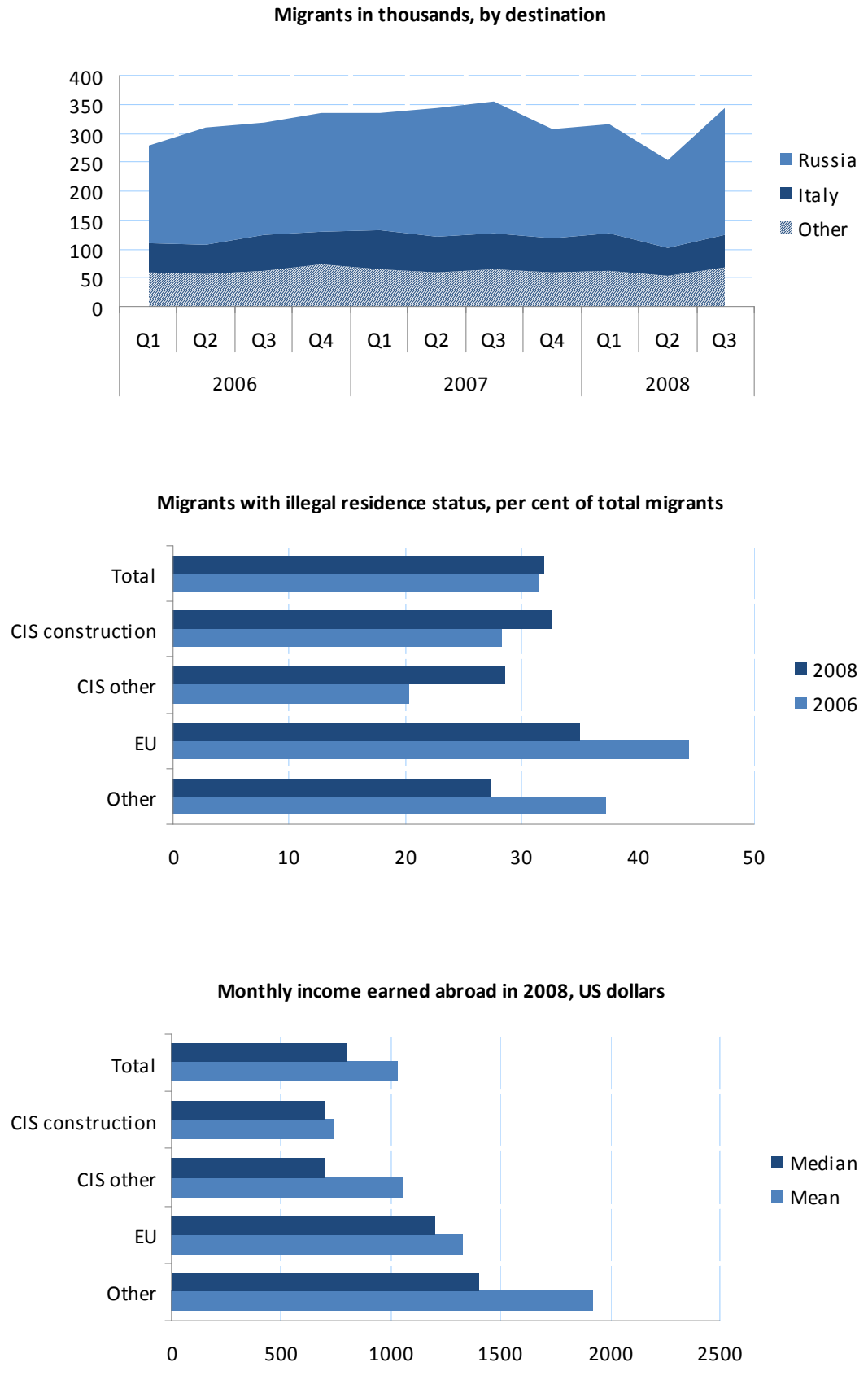
Table 10.4.1 Examples of questions on migration included in the 2008 CBSAXA household survey for Moldova (for current and former household members who were abroad in 2007-2008)

	How would you describe the migration pattern of the person concerned?	*Is the person concerned a seasonal migrant meaning that he/she leaves and returns regularly but never stays for more than six months? (do not consider short home visits)*	*(If yes) In what season of the year does the person concerned leave most often? (do not consider short home visits)*
Person's first name	1 Permanently abroad, comes back less than once a year 2 Permanently abroad, comes back at least once a year 3 Goes back and forth on a regular basis, spending considerable time both abroad and in the republic of Moldova (e.g. works abroad for three months, then returns to the Republic of Moldova for three months and then leaves again) 4 Lives in the Republic of Moldova for most of the time and only goes abroad at certain times of the year (e.g. harvest work)	1 Yes 2 No	1 Spring 2 Summer 3 Autumn 4 Winter 5 Departure does not depend on season

In the destination country, how long did it take the person concerned to find his/her first job?	*Was the first employment abroad of the person concerned abroad legal?*	*In what sector was the first job of the person concerned?*
1 Had a job already before departure 2 Found a job just after arrival 3 Less than 1 month 4 1-2 months 5 2-3 months 6 More than 3 months 7 Has not found a job yet 8 Other (specify)	1 Yes 2 No	1 Agriculture 2 Industry and mining 3 Construction 4 Wholesale and retail trade, hotels and restaurants 5 Transport and communications 6 Public administration, education, health, social work 7 Other activities

Does the person concerned still have the same job he/she had first?	*[If not] Is the current employment abroad of the person concerned legal?*	*In what sector was the current job of the person concerned?*
1 Yes - question… 2 No	1 Yes 2 No	1 Agriculture 2 Industry and mining 3 Construction 4 Wholesale and retail trade, hotels and restaurants 5 Transport and communications 6 Public administration, education, health, social work 7 Other activities

Chart 10.4.1 Examples of results of Moldovan household surveys



Source: IOM, 2008.

Annex 10.5
Measuring the outflow of labour in Ukraine

10.5.1 Ukraine has experienced significant outflows of labour, and consequently the State Statistics Committee of Ukraine (SSCU) and the Ukrainian Centre for Social Reforms, in cooperation with the World Bank, conducted a large-scale household survey of the outflow of labour in June 2008 in the framework of the project "*Labour migration survey in Ukraine*".[40] The purpose of the survey was to assess the scale, popularity, and geographic direction of external labour migrations, the socio-demographic category of migrants, their occupation, the frequency and length of their trips, etc.

10.5.2 The methodology and organization of the survey corresponded to international practice. The survey was based on a sample of households merging the samples used for two government surveys, namely the labour force survey and the household living conditions survey. The size of the sample allows representative data to be obtained for the country as a whole and for each of the five broad regions (North, Centre, South, East and West).

10.5.3 The subjects of the survey were household members of working age (women aged 15−54 and men aged 15−59). The survey covered almost three and a half years (1 January 2005 to 1 June 2008).

10.5.4 The survey showed that nearly 1.5 million persons from 1.2 million households worked abroad at least once during the period, representing 5.1 per cent of the population of working age. Almost 1.3 million of these people (4.4 per cent of the population of working age) worked abroad in the period early 2007 to 1 June 2008.

10.5.5 Data on the labour outflow broken down by what were considered to be the main host countries and by main types of economic activity were also collected. Seven major host countries were considered (Russian Federation, Italy, Czech Republic, Poland, Hungary, Spain and Portugal) as well as seven major types of economic activity (agriculture, industry, construction, wholesale and retail trade, hotels and restaurants, transport and work in households).

10.5.6 Data on income, detailed expenditure within the host country and transfers to Ukraine were collected, and may be a valuable source for national accounts in both Ukraine and the host countries. A report on the survey mentions that: "*Determining the amount of actual earnings of labour migrants is quite possibly the most difficult aspect of sample surveys, primarily because of the reluctance (anxiety) of migrants and their families to give honest replies to questions about earnings. This is understandable, since many labour migrants are working and receiving income abroad semi or completely illegally*."

[40] A discussion of this survey from the perspective of remittances may be found in Chapter 11 on remittances, annex 11.2.