Forwarding Armenian Statistics Through Twinning

AM09/ENP-PCA/TP/04

MISSION REPORT

on

EXHAUSTIVENESS OF GDP ESTIMATES

ACTIVITY C.3
IMPLEMENTATION ASSISTANCE

Mission carried out by

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List of Abbreviations

BR	Business Register
SD	Statistics Denmark
ESA	European System of Accounts
GDP	Gross Domestic Product
HBS	Household Budget Survey
NACE	Nomenclature generale des Activitiés économique dans les Communautes Européennes (the industry classification of European Union)
NSSRA	National Statistical Service of Republic of Armenia
SNA93	System of National Accounts 1993 (United Nations)
SNA2010	System of National Accounts 2008 (United Nations)
TAE	Tabular Approach of Eurostat

1. General comments

The main purpose of the mission was to evaluate the draft Tables 1A, 2A and 3A (GDP output approach), that had been completed by the BC-experts and sent to the MS experts by e-mail before the mission together with an explanatory note, and to discuss the possibilities for further improvements of the exhaustiveness adjustments.

On the basis of Tables 1A, 2A and 3A, some good and detailed discussion on the methods used for the exhaustiveness adjustments and how they are categorised in the tables took place.

The MS experts made three presentations; Goods sent abroad for processing; Estimation of output from insurance and Classification of government expenditures according to COFOG and NACE. All three presentations were followed by interesting and lively discussions. The use of bridge tables was mentioned by the MS experts as a good tool for explaining different principles between and the transit from basic statistic to National Accounts. The presentations were made for the staff of National Accounts and Macroeconomic Indicators division, Finance Statistics division, Trade and Other Services division, External Trade division as well as for staff members from Ministry of Finance of RA and Central Bank of RA.

The MS Experts would like to express their thanks to all officials and individuals met for the kind support and valuable information, which was received during the stay in Armenia, and which highly facilitated the work.

The views and observations stated in this report are those of the MS Experts, and do not necessarily correspond to the views of Statistics Denmark.

2. Assessment and results

The starting point for the discussions was the Tables 1A, 2A and 3A that the BC experts had completed. The tables had been sent to the MS experts before the meeting together with an explanatory note prepared by the BC experts that gave a short description of the adjustments made. Each type of adjustment (N1 – N7 in the tabular approach) was discussed in depth in the framework of the tables and the explanatory note. The exhaustiveness adjustments are generally extensive, systematic and transparent, but some areas with potential improvements have been identified during the detailed discussions. In particular the following remarks and conclusions were made:

N1 Producers should have registered + N3 Producers not obliged to register
The adjustments made for N1 and N3 are similar and difficult to distinguish from each other. N1 and N3 adjustments are therefore discussed together and registered in the tables under N3 adjustments. The main data source for N1 and N3 adjustments is the Informal Sector Survey from 2009, and the adjustments are made in the household sector. The informal sector accounts for approximately 14 per cent of GDP. In addition the following findings were established:

- NACE A Agriculture: Production for own final use is included in the N1 and N3 adjustments.
- NACE K Real estate, renting and business administration: The issue of owner occupied dwellings was discussed and it was agreed that the imputed rent for owner occupied dwellings should be considered as part of the formal economy.
- NACE M Education and NACE N health: The adjustments are based on special surveys that are adjusted over time. The benchmark surveys are from 2001 and 2002. Due to changes in the economy and legalisation the benchmark surveys will eventually become outdated and it should be considered to update them at certain intervals.

N2 Illegal producer

Adjustments for N2 are currently not made, and methods for calculations need to be developed. This will be one of the subjects for the study visit in Copenhagen in June 2012 where the MS experts will present different methods for estimating illegal production. The definition of illegal activities in the national accounts and different types of illegal activities were discussed during the mission. Eurostat has agreed on three main groups of illegal activity; narcotics, prostitution and smuggling.

N4 and N5 Registered legal person and registered entrepreneur not included in statistics
N4 and N5 adjustments are made in NACE A Agriculture, NACE D Manufacturing and NACE O Other comm., social services. The following details were discussed:

- NACE A: Adjustment is made for irrigation networks. However, the adjustment will not be necessary from 2011 because data for irrigation networks will be included in the agriculture survey.
- NACE D: Adjustments are made using information on household consumption from the expenditure side and the formal part, and the N4 adjustments are calculated implicitly as a residual. The adjustments are for small units producing cheese and bread. Many of these units are now registered in the business register for tax-purposes.
- NACE O: Adjustments are made for the production in NPISH. The production is calculated according to the principles in the SNA (from the cost side). The survey used as a benchmark is from 2001, which is projected with information from state accounts.

N6 Misreporting by producer
N6 shows the adjustments made for the "hidden" part of the formal economy. For this adjustment type there was a general discussion on the method used for several industries (NACE A, B, C, D, E, F, H, K, and O). In particular the use of the structures in the formal part of the economy to account for the hidden activity was discussed. The assumptions behind the adjustments are that output per employee and input-percentages (the labour productivity) is the same in the hidden part as in the formal part. Three main things related to this appeared from the discussions:

- It is assumed in the adjustment calculations that the labour productivity is the same in the hidden as in the formal part of the economy.
- The input-percentage used for calculating intermediate consumption in the hidden is the same as in the formal part of the economy. It was discussed whether there are any tax advantages of including input related to hidden employment in the business accounts and the possibility that they therefore are already accounted for. The different input structures in smaller versus larger enterprises were also discussed.
- Full-time equivalence. The adjustments made are based on the number of employees. It was discussed whether "hidden employees" work the same number of hours as formal employees.

Based on the discussions, it was agreed to investigate how information about number of employees and hours worked in the labour force survey can be used and/or if it is possible to include a question on hours worked in the household budget survey in order to improve the N6 adjustments.

N7 Statistical deficiencies in the data
For this N-type there are adjustments in two industries:

- NACE E Electricity, gas and water supply: For gas additional information on customer debts are used together with payments to estimate the accrued output.
- NACE G Trade: Adjustment for the output in shopping centers that is not covered by business statistics.

It was discussed whether the adjustments in these two industries should be considered exhaustiveness adjustments.

Two new types of N7 adjustments were brought up: tips and benefits in kind.

- The MS experts suggested an adjustment for tips. One method could be to add a percentage to the output for hotels and restaurants. The BC experts will investigate possible information on tips from the service division or – if information is not available - make a calculation based on expert judgement.
- Benefits in kind are generally removed from intermediate consumption and added to wages and salaries. But in some cases, when the producer produces the benefits in kind himself, the related input should remain in intermediate consumption and an addition to output should be made. It was suggested that adjustments for benefits in kind should be further discussed on the study visit to Copenhagen.

3. Conclusions and recommendations

3.1 Summary conclusions

The three tables, Table 1A, 2A and 3A have now been completed. In addition a useful explanatory note to accompany the tables has been made. Based on the three tables and preparations from the BC experts fruitful discussions took place.

The informal sector accounts for approximately 14 percent of GDP, and the informal sector survey is the main source for these adjustments. The Informal Sector Survey is from 2009. It took place during the financial crisis which had a heavy impact on the Armenian economy and may have affected the results of the survey.

The calculation of output for owner occupied dwellings is currently categorised as an adjustment for informal activity. It was concluded that this adjustment should not be an adjustment for exhaustiveness. This will not change GDP but the share of the informal sector will decrease.

There are no adjustments for N2 Illegal activities.

The value of the hidden activity is calculated using the assumption that the hidden activity has the same output per employee and the same input-percentage as the formal activity, which is the same labour productivity. The number of employees is not adjusted for actual hours worked. It was concluded that using information on hours worked would improve the estimates.

There are no adjustments for tips in hotels and restaurants (adjustment type N7).

Adjustments in some industries, in particular NACE G, I, M, N, O, are based on the one-off surveys that took place in the beginning of the years 2000. In some cases, the information from the surveys is adjusted using other information. However, it was concluded that it would be useful to repeat the surveys at certain intervals.

3.2 Recommendations

The detailed analyses and discussion of the adjustment types N1-N7 using the completed tables 1A, 2A and 3A (GDP from the output side) from the tabular approach have resulted in the following recommendations:

N1+N3:
The informal sector accounts for approximately 14 percent of GDP, and the informal sector survey is the main source for these adjustments. The Informal Sector Survey is from 2009. Due to the importance of this source, it could be considered to repeat it at certain intervals to take account of any changes in the structure of the economy. This is reinforced by the fact that the Armenian economy was

heavily affected by the financial crisis in 2009, which in turn could have affected the results of the survey.

The calculation of output for owner occupied dwellings is currently categorised as an adjustment for informal activity and as a non-exhaustiveness adjustment. In order to be comparable with other countries, it is recommended to categorise this activity as formal activity. This will not change GDP but the share of the informal sector will decrease. In addition, it is recommended, that the Danish calculation of owner occupied dwellings is discussed at the study visit in Copenhagen (C5)

N2:
At present there are no adjustments for N2 illegal activities. Sources and methods for the calculation of such estimates should be investigated. As an operational starting point estimates for one or more of three types could be considered: prostitution, narcotics and smuggling. In addition the Danish sources and methods for calculating illegal activities will be discussed at the study visit in Copenhagen.

N6:
N6 adjustments relate to hidden activity in the formal sector. The value of the hidden activity is calculated using the assumption that the hidden activity has the same output per employee and the same input-percentage as the formal activity. The number of employees is not adjusted for actual hours worked. It is recommended that such adjustments are made.

It should be investigated if information from the LFS can be used to adjust the number of employees for actual hours worked. In addition, it should be considered whether it is possible to include questions on hidden activity in the household budget survey.

N7:
At present there are no adjustments for tips in hotels and restaurants. It is recommended that possible sources for estimating tips are investigated.

One-off surveys:
In some industries, one-off surveys are used for non-exhaustiveness adjustments. It is recommended that the one-off surveys, that are used for adjustments in some industries, in particular NACE G, I, M, N, O, should be repeated at certain intervals.

Tables 1B, 2B and 3B
Table 1B *Elements of non-exhaustiveness: Expenditure approach* has already been completed. In order to get a full picture of the non-exhaustiveness adjustments table 2 B *Exhaustiveness adjustments: Expenditure approach* and table 3B *Summary of GVA Adjustments: Expenditure Approach* should also be completed.

Other recommendations
The business register includes corporations and some unincorporated enterprises that are registered. A better coverage of unincorporated enterprises in the business register will allow for these enterprises to be included in the business statistics survey. In particular, the inclusion of a larger number of small enterprises in in the business register in 2011 will be valuable information.

Business statistics is an important source for compiling GDP from the output side. When compiling GDP from the output side, the compilation of gross value added accounts for by far the largest part of GDP. Using one source for output and another source for intermediate consumption can however create consistency problems. It should be considered to include relevant information on intermediate consumption in the business statistics survey in order to get this information from the same source.

Another relevant, future source of information will be the Agricultural Census. The MS experts have studied the draft questionnaire for the first ever Agricultural Census in Armenia, and suggest that, for national accounts purposes, an extra column is added to the section of questions under "XI Realiza-

tion of agricultural products produced in holding" in order to get a more precise estimate of the production that is used for own purposes.

4. Actions before next activities (C5 and C4)

The next activity (C.5) will be a study visit in Copenhagen in June 2012. For the preparation of this mission it has been agreed that:

The BC experts will complete tables 1B, 2B and 3B and send them to the MS experts no later than 1 June 2012. The tables will be discussed during the study visit in Copenhagen.

The BC experts will send information from the LFS on number of employees and hours worked for formal employment and hidden employment in NACE A, B, C, D, E, F, H, K, O to the MS experts no later than 1 May 2012. The BC experts will also send information on formal output and formal intermediate consumption for these industries. The data will be discussed at the study visit in Copenhagen and/or via e-mail.

The next activity is the NSSRA study visit (C.5) to Copenhagen. The following preliminary agenda has been agreed upon:

- Introduction to the Danish national accounts compilation system, in particular the supply-use approach
- The Danish calculation of owner occupied dwelling services
- The Danish calculations of illegal activities.
- The Danish calculations for benefits in kind
- Presentation of identified changes from ESA95/SNA93 to ESA2010/SNA2008
- Assistance with the functioning of the seasonal adjustment software (Tramo Seats)
- Discussion of the data on number of employees and number of hours worked from the LFS as a basis for improvement of N6 adjustments.
- Discussion of Tables 1B, 2B and 3B from the tabular approach.

The following activity (C.4) will take place in Yerevan in September 2012. For the preparation of this mission it has so far been agreed that:

1. The BC experts will consider for which types of illegal activities estimates should be made. The BC experts will also find possible data sources for such estimates.

Purposes of activity (C.4):

1. To discuss and finalise tables 1B, 2B and 3 B
2. To develop estimates for one or more illegal activities (N2)
3. To develop improved estimates for N6 for one or more industries in NACE A, B, C, D, E, F, H, K, O
4. To develop estimates for tips and possibly fringe benefits in order to improve adjustments for N7.

Roadmap (updated)

Activity	Timing	Content
C.1	March 2011	Identification of issues.
C.2	Sept. 2011	Determination of priorities. Discussion and finalizing of table 1A. Introduction to tables 2A and 3A. Presentations and discussion of how to plan and coordinate among several divisions a major revision (ESA2010).
C.3	March 2012	Implementation assistance. Presentation and discussion of methods used by Statistics Denmark on "Goods sent abroad for processing"; "Classification of government expenditures according to COFOG and NACE"; and "Insurance output". Discussion and finalizing of tables 2A and 3A.
C.5	June 2012	Study visit to Statistics Denmark. Discussion of the Danish National Accounts methodology and system of supply and use tables. Connection between quarterly and yearly accounts. Revision policy and coordination with the most important data sources. Seasonal adjustment. Update on the progress within the Twinning project, finalization of tables 1B, 2B and 3B, discussions and further recommendations.
C.4	Sept. 2012	Correction methodologies. Introducing new estimates for the relevant N-types, and further priority setting.
C.6	Dec. 2012	Review of the implementation of the tabular approach and of other initiatives recommended.

Annex 1. Terms of Reference

Activity C.3 Implementation assistance

Component mandatory result: Full tabular exercise completed; better estimates achieved for at least half of the tables; specific improvement plans for the remainder formulated.

1. Purpose of activity
The main purpose of the activity is to evaluate the work already done and to initiate work on the remainder of the tables, according to the road-map for the component and the following status overview:

Table (scope)	Compiled by BC	MS Comments	Status (only highlights)
1A, adjustments	28 November 2011	5 December 2011	Some omissions & other minor issues
2A, NACE G	28 November 2011	5 December 2011	Sector codes and detailed descriptions should be given
1B, full	6 February 2012	20 February 2012	Breakdowns, indication of non-exhaustiveness types remain
2A, NACE A-P	1 March 2012	During C.3	
3A	on-going	During C.3	
2B	not started		
3B	not started		

2. Expected output of the activity
The expected output of the activity is:
o Finalization of tables 1A and 1B;
o An in-depth evaluation of the on-going work on tables 2A and 3A;
o Common understanding of the principles and methods related to tables 2B and 3B;
o Update of roadmap and decision on priorities: for which parts of the national accounts should better estimates be achieved during the project and for which parts should specific improvement plans be formulated, referring to the Tabular Approach tables;
o Presentations on methods used by Statistics Denmark on "Goods sent abroad for processing" and on "Classification of government expenditures according to COFOG and NACE";
o Discussion of Statistics Denmark's estimation of insurance output;
o Discussion of next activities within the Twinning project, C.5 (study visit) and C.4.

3. Project Participants
Ms. Lusya Khachatryan, Head of National Accounts and Macroeconomic Indicators Division *(BC Deputy Component Leader)*;
Ms. Nadezda Astvatsaturova, Main Specialist of National Accounts and Macroeconomic Indicators;
Ms. Susanna Khachatryan, Main Specialist of National Accounts and Macroeconomic Indicators;

Ms. Annette Thomsen, Deputy Head of Government Finances Division, Statistics Denmark;
Ms. Maria Nilsson, Head of Section, National Accounts Division, Statistics Denmark.

Annex 3. Programme for the mission 12–16 March 2012

Time	Place	Event	Purpose / detail
Monday, 12 Mar. Morning	Congress Hotel	Meeting with RTA	To discuss the programme of the week
Afternoon	NSSRA	Meeting with BC Experts	Current status. Developments since last activity (C.2) in particular Tables 2A and 3A. Plans for the week.
Tuesday, 13 Mar. Morning	NSSRA	Meeting with BC Experts	In depth discussion of Table 2A of the tabular approach in relation to the National Accounts of Armenia
Afternoon	NSSRA	Workshop	MS Expert presentation on "Goods sent abroad for processing"
	NSSRA	Meeting with BC Experts	Discussion of the estimation of output from insurance
Wednesday, 14 Mar. Morning	NSSRA	Meeting with BC Experts	Discussion Table 2A continued and Table 2B of the tabular approach in relation to the National Accounts of Armenia
Afternoon	NSSRA	Workshop	MS Expert presentation on Classification of government expenditures according to COFOG and NACE
	NSSRA	Ad hoc meetings	Priority setting and updating of road map including preliminary programme for study visit (C.5), part 1.
Thursday, 15 Mar. Morning	NSSRA	Meeting with BC Experts	Discussion of the Roadmap and principles for Tables 2B and 3B of the tabular approach in relation to the National Accounts of Armenia
Afternoon	NSSRA	Ad-hoc meetings	Priority setting and updating of roadmap, part 2 (final). Agreement on conclusions and drafting of report
Friday, 16 Mar. Morning	NSSRA	Meeting with BC Experts	Discussion of preliminary report and agreement on conclusions.
Afternoon	NSSRA	Debriefing with BC Project Leader	Conclusions and recommendations. Consequences of decisions for the next missions, C.5 and C.4, and the implied work programme for BC Experts

Annex 3. Persons met

Stepan Mnatsakanyan, President of NSSRA (BC Project Leader)

Anahit Safyan, Head of International Statistical Cooperation Division,

Lusya Khachatryan, Head of Macroeconomic indicators and National accounts statistics division

Susanna Khachatryan, Main specialist of Macroeconomic indicators and National accounts statistics division

Nadezhda Astvatsaturova, Main specialist of Macroeconomic indicators and National accounts statistics division

Marlena Khachatryan, Main specialist of Macroeconomic indicators and National accounts statistics division

Naira Baboyan, 1st category specialist of Macroeconomic indicators and National accounts statistics division

Seda Movsisyan, 1st category specialist of Macroeconomic indicators and National accounts statistics division

Julietta Mirzoyan, Chief Advisor of the President of NSS RA

Ruzanna Shaboyan, Main specialist of International Cooperation Division

Kristine Poghosyan, Head of External Trade and Balance of Payments division

Anahit Harutyunyan, Head of Trade and Other Services Division

External stakeholders

Tigran Baghdasaryan – Central Bank of Armenia

Aleksandr Petrosyan- Central Bank of Armenia

Armen Gagikyan- Central Bank of Armenia

Peprane Margaryan- Central Bank of Armenia

Arpine Petrosyan- Central Bank of Armenia

Lusine Hayrapetyan- Central Bank of Armenia

Shushanik Javadyan- Ministry of Finance of Armenia

Hasmik Stepanyan, Ministry of Finance of Armenia

Annex 4. Explanatory note and draft tables 2A and 3A

(Provided to MS Experts before activity C.3.)

Exhaustiveness adjustments: Presentation of information sources and methods used in the Republic of Armenia. GDP by Output Approach

Below you can find the overview of GDP exhaustiveness adjustments by output approach according to the data of 2009

Tables 1A, 2A, and 3A were compiled according to Eurostat 's Tabular Approach to Exhaustiveness Guidelines.

✓With the purpose to evaluate non-exhaustiveness, we applied this method to NACE G (Wholesale and retail trade; repair of motor vehicles and motorcycles) in practice to test it. NACE G section is the economic activity with the one of the largest share of exhaustiveness adjustments. It is also representative since all the main types of non-exhaustiveness may be found. All possible non exhaustiveness types were defined according to economic institutional sectors by NSS RA by using each non exhaustiveness type (N1-N7) for adjustments using different sources and methods. Later, respectively the same exercise was repeated for the rest 16 NACE sections for identification of non exhaustiveness types.

Non-Exhaustiveness type N 1: Producers do not register deliberately /underground production as well as non-exhaustiveness type N3: Producers who are not obliged to register

N1 and N3 non-exhaustiveness types in Armenia refer mostly to small producers in households who do not register to keep their social benefits (since they are registered as unemployed) and/or to avoid tax or social payments. Typically, it includes the following industries such as agriculture, food production, construction working groups activities, trade, repair, taxi services, tutoring, apartment rents, health care services, individual services provision. Large share of not registered economic units in total non-exhaustiveness (41.3%) is due to high unemployment rate (6.8% in 2009.), low income level as well as not ideal tax legislation.

«Informal Employment and Informal Sector in Armenia» survey (financed by the Asian Development bank) results were used as the information source for the non exhaustiveness types adjustments for 2009. This information gave an opportunity to directly evaluate informal part in GDP in lower economic activity type classification level (NACE 4 digits): Thus, it should be mentioned, that 2009 was economic meltdown year for Armenia (that equals to 14.1%) and the period for the survey matched with the financial crisis impact on Armenia. Armenian Government prepared anti recession program that included all types of economic units including small, medium enterprise's calculations simplification, new tax procedures. These factors had an impact on informal economy units. For this reason the income of households included in the scope of the survey decreased while some of them had to hide their informal activities to avoid paying taxes. Respondents showed lower income, since they did not want to lose poverty or unemployment benefits. Accordingly, household integrated survey, labor force survey, one time surveys as well as other statistical observations data were used to evaluate informal part of same activities.

- ➢ NACE-B –Fishing: The data from exhaustive households survey was used: The volume of expenditures for purchasing of fresh fish by households was used.
- ➢ NACE K- calculated price of owner occupied house lease according to current expenditure method spent on housing, the basis of which is the data from State Statistical reports on housing funds as well as data from Labor Force Survey
- ➢ NACE-M The calculation of tutoring output was made according to the number of applicants of the that year as well as estimations of the survey of education for 2001, according to which 85% of

applicants study with tutors for in average 2.1 subjects. The average price for one subject in 2008-2009 was 800 USD.

- NACE-N -the survey of health care companies and households expenditures on health care services for 2002 was the basis for the calculation. According to which 8.23% percent of households expenditure applies to health care services.

According to the survey results it is impossible to distinguish between producers who do not register deliberately and whose registration is not obligatory. For this reason N1 and N3 non exhaustiveness types are mentioned as N3 type in tables 1A, 2A and 3A. According to summary data the non exhaustiveness adjustment of N1 and N3 types equals to 332000,2 mln. AMD which is 42.5%- of all adjustment and 10.6%- of GDP. The largest share of non exhaustiveness types N1 and N3 of economic activity refers to NACE-A 32.5%, NACE –F 25.5%, NACE -G ` 17.8%:

Non exhaustiveness N4 type includes the activity of legal units not in the scope of statistics

The following NACE sections are included under non-exhaustiveness N4 type.
- NACE-D the legal units involved in small production of bread and cheese products. The non exhaustiveness adjustment estimation was made according to Household survey on the basis of volume bread products and cheese consumption, as well as legal units included in the scope of statistical survey and informal producers output volumes.
- NACE-G Small enterprises dealing with the retail trade of motor fuel that are not included in the scope of statistical observation. Their turnover volume is estimated according to the number of the enterprises received from municipalities as well as the statistical reporting forms filled by such enterprises.
- NACE-O the activity of NPISH (social, religious companies, unions, parties, etc) for calculation of output and intermediate consumption was based on estimates from sample survey of 2001 non commercial organizations financial results
- NACE-A the companies with operating irrigation networks that are not included in the scope of statistical observation. The data on them is taken from the reports of Public Services Regulatory Commission posted in their web site. The report includes the volumes of irrigation water supply as well as relevant payments.
- According to summary data the adjustment of N4 non exhaustiveness type is 78419.1 mln AMD or 10%- of all adjustments and 2.5 % of GDP. The largest share of adjustments in non exhaustiveness type N4 refers to NACE D 60.8%, NACE-G 25.2%, while NACE –O and NACE –A compile 7.0% and 6.9%.
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Non exhaustiveness N6 type- misreporting as a result of fake data provided by the producer

- N6 non exhaustiveness adjustment estimations for the NACE sections A, B, C, D, E, F, H, K, O were made according to formal and informal (hidden) number of employees as well as the volume of output in the formal sector.
- For example in NACE C the number of formal employees is 9,503, while the number of informal is 15. Output volume equals to 91,897.6 million AMD. The same formula was used for the calculation of N6 non exhaustiveness adjustment 91,897.6/9,503*15=145.1 mln. AMD. While for the calculation of intermediate consumption the ratio of output to intermediate consumption was used. The same approach was used for the calculations of sections NACE A, B, D, E, F, H, O

| | | Mln. dram | |
NACE	OUTPUT	Intermediate Consumption	Value Added
A	5902.4	2313.6	3588.83
B	705.3	194.0	511.3
C	145.1	61.7	83.4
D	98844.9	33876.9	64968.0
E	1788.7	888.4	900.3
F	218317.8	90916.3	127401.5
H	6693.7	3240.2	3453.5
K	6164,8	1930,3	4234,5
O	315.0	117.5	197.5

> NACE G - the basis for non exhaustiveness adjustments (N6) estimates were the results from the survey implemented in 2000 on commercial companies according to which the trade turnover indicated in statistical reporting forms was 1.1-1.5 less from the real trade turnover. The same referred to the volume of trade output.

> NACE I - the basis for non exhaustiveness adjustments (N6) estimates were the results of the sample survey implemented in 2006 on interurban passenger turnover, according to which interurban passenger turnover volume is 1.55 larger than the volume indicated in the reporting forms.

> NACE N - the basis for non exhaustiveness adjustments were the results from the survey implemented in 2001 on expenditures for health care services by health companies, pharmacies and households, according to which the consumption volume of paid health care services by households is 4.48 larger than the number mentioned by health care companies. According to expert judgment this rate decreased up to 2.5-3.0.

> According to summary data N6 non exhaustiveness type adjustments equals to 269,804.1 mln. AMD, that is 34.6% of all adjustments and 8.6% of GDP. The largest share of N6 non exhaustiveness type refers to NACE F47.2%, NACE D 24.1%, NACE-N 16.3%:

Non exhaustiveness type N7a includes the adjustments of collected and not comprehensive statistical data, the collection of which is not possible.

The following NACE sections are included under non exhaustiveness type, N7a
> NACE G - the activity of outlets in shopping centers. The information on outlet number is collected while trade turnover is not collected. Their daily average turnover is defined by separate observation and the estimation is given or the whole turnover.

> NACE E - in order to get the gas production and distribution output by accrual method we add the consumer debts on delivered gas of the reference period to output volumes on which the information is collected by other statistical reporting form.

According to summary data adjustments of non exhaustiveness type N7a equals to 100,306.6 mln. AMD that is 12.9% of all adjustments and 3.2% of GDP. According to activity types in adjustments of N7a non exhaustiveness type 93.8 % refers to NACE G, while 6.2% to NACE E.

N1 and N3 are non exhaustiveness intermediate consumption adjustments that are made based on informal sector survey data, calculated directly according to the survey results. N4, N6, N7 non exhaustiveness intermediate consumption is calculated on the basis of intermediate consumption share to output illustrated in national statistical reporting forms on companies financial activities.

Summing up table 3A we can see that in 2009 the exhaustiveness adjustment of GDP equals to 780,530.0 mln. AMD or 24.8%, of which 6.7% refers to NACE F, 5.8% to NACE G, 4.3% to NACE D.
According to economic sectors 14.1% refers to financial organizations, 10.5% to households and , 0.2% to NPISHs.