



EU Twinning Project

Forwarding Armenian Statistics Through Twinning

AM09/ENP-PCA/TP/04

MISSION REPORT

ON COMPONENT E: INTRODUCTION OF THE HARMONIZED CONSUMER PRICE INDEX

ACTIVITY E.4 ORGANISATION: HCPI WORKFLOW

Mission carried out by
Nadiežda Alejeva, Statistics Lithuania
Oskars Alksnis, Central Statistical Bureau of Latvia

Armenia, 2–6 April 2012

Version: Final

National Statistical Service of the Republic of Armenia	Central Statistical Bureau of Latvia	Statistics Lithuania	Statistics Denmark

Authors' names, addresses, e-mails

Nadiežda Alejeva
Head of the Price Statistics Division
Statistics Lithuania
29 Gedimino Ave
LT-01500 Vilnius
Lithuania
Nadiezda.Alejeva@stat.gov.lt

Oskars Alksnis
Head of the CPI Section, Price Statistics Department
Central Statistical Bureau of Latvia
1 Līdplūša Street
LV-1301 Riga
Latvia
Oskars.Alksnis@csb.gov.lv

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List of Abbreviations

BC	Beneficiary Country
COICOP/HICP	Classification of Individual Consumption by Purpose adapted to the needs of HICPs through Commission Regulation (EC) No 1749/1999
CPI	Consumer Price Index
EU	European Union
HBS	Household Budget Survey
HICP	Harmonized Index of Consumer Prices
MS	Member State
NSSRA	National Statistical Service of the Republic of Armenia
PPP	Purchasing Power Parities
ToR	Terms of Reference

0. Executive summary

The key objectives of the mission were to agree on the logistics concerning data collection, validation and transmission and cooperation between the central statistical office and regional statistical agencies; to discuss the progress in the work done; to provide the NSSRA with recommendations on the further implementation of the main provisions regarding the HICP; to plan actions to be performed by the NSSRA before the next activities.

It was agreed that the implementation of the EU minimum standards and the main requirements in the national CPI production environment would minimise the differences between the Armenian CPI and the HICP produced by the EU MSs as well as facilitate the introduction of the interim HICP as far as this does not conflict with the concept and purpose of both indicators. It involves changes in the process of data collection and improvements in the different methodological domains of the compilation of the CPI.

The Head of the Price Statistics and International Comparisons Division and the staff working on the compilation of the national CPI are highly experienced in price statistics. However, taking into consideration the tasks and the amount of work to be done, it seems that the available staff resources are not enough. The shortage of resources, both human and equipment, is one of the major constraints to the achievement of compliance with the HICP requirements within the time framework of this Twinning Project. There is a clear need to increase the staff number involved in the CPI/HICP area as well as to boost the capacity related to the legal basis for the production of the HICP.

A road map covering the main steps of the reorganisation of the data collection procedure was agreed upon. Taking into consideration that this action could reduce the number of price collectors necessary to carry out fieldwork, the Price Statistics and International Comparisons Division could be strengthened.

Some problems and shortcomings in such methodological issues as sampling, adjustments due to quality changes, weights still exist and require further development.

As it was already underlined in the Mission Report for activities E.1/E.2, an area of concern touched upon by the BC specialists is the need for continuous communication with users during the Twinning Project regarding the idea of the HICP and the differences between the current CPI and the HICP. The aim of such communication is to prevent public mistrust in official inflation figures due to the introduction of a new inflation measure – HICP – which is mainly used for international comparisons of inflation levels.

Taking into account the importance of the above-mentioned issues, an additional activity was proposed within the framework of this Twinning Project. It would take the form of a training workshop, which would involve all price collectors and representatives of regional statistical agencies as well as policy-makers in different sessions.

Furthermore, action points for the BC specialists to work on before the next activities (Activity E.5: Study visit to Statistics Denmark, extra Activity E.4.2: Training workshop, Activity E.6: Review of the implementation) in this component of the Twinning Project have been identified and the component's road map has been updated for the work and actions which should be undertaken during the rest of the Twinning Project period and in 2013.

1. General comments

This Mission Report was prepared within the framework of the EU Twinning Project. It was the third MS Experts mission to Armenia, E.4 Organisation: HCPI Workflow within Component E: Introduction of the Harmonized Consumer Price Index.

The main objectives of the mission were in line with the ToR and were the following:

- Evaluation of not collecting prices on the 1st day of every month and of the possibility of reducing the number of price collections;
- Analysis of possible organisational changes implied by changes in price collection;
- Conclusions on the yearly updating of the sample of goods and services in the basket and the evaluation of the process of ensuring that a sufficient number of elementary aggregates has been included to represent the diversity of products within each COICOP/HICP category;
- Determination of consumption areas for which to change the quality adjustment method, for technological products but also for other products that are less complicated;
- Conclusions concerning the application of the COICOP/HICP (including car insurance);
- Conclusions on a new production system for weights;
- Discussions and conclusions on a more efficient solution for missing/matching prices;
- The price of services to be included in the month when the service is consumed.

The MS Experts would like to express their heartfelt thanks to all officials and individuals met in the NSSRA for the kind support and valuable information which they received during their stay in Yerevan, and which facilitated their work. The staff of the Price Statistics and International Comparisons Division as well as of the Yerevan city statistical agency was open for discussions and were willing to cooperate and provide an input to the Twinning Project.

The views and observations stated in this Mission Report are those of the MS Experts and do not necessarily correspond to the views of Statistics Lithuania or the Central Statistical Bureau of Latvia.

2. Assessment and results

Current status and progress achieved since the last Activity E.3

Head of the Price Statistics and International Comparisons Division of the NSSRA presented the current status of the implementation of the HICP. The progress achieved and the developments made since the last mission of the MS Experts which took place in September 2011 were reviewed.

The COICOP classification was introduced for the HBS in January 2012. An analysis of the reduction in the number of price collections on the basis of the calculations, carried out by the specialists of the Price Statistics and International Comparisons Division, was prepared and presented in a paper by Mr Gurgen Martirosyan, Head of the Division. Not sufficient progress has been achieved in the area of the application of quality adjustment methods. Mostly, direct comparison and overlap methods are used in practice. Some work was carried out regarding the introduction of car insurance, timing of the entry of prices for services into the CPI.

Organisation of the future data collection and data processing

The future strategy of the CPI development by the NSSRA was discussed in the light of the reorganisation of price collection procedure. The assessment of a possible reduction in the number of price observations and the impact on the reliability and quality of the CPI was made together with the specialists of the Price Statistics and International Comparisons Division. For this purpose, the MS Experts were provided with a paper “Analysis of the Reduction of Price Collections” before the mission. This paper was prepared following the recommendations given in the previous Mission Reports by the MS Experts, and it presents the results of various calculations and analyses made. The paper was carefully studied, and the results of the assessment of the impact on the all-items price index for Yerevan were discussed. Yerevan city was chosen for pilot calculations since its share, estimated as the average of three dimensions (population, trade turnover and services volume), is the biggest among 11 settlements where prices are collected and since it makes up about 60% in the CPI of Armenia.

In addition to the paper, comprehensive information on the issues related to the price collection procedure, such as geographical coverage, sampling of products and outlets, price variation (the time dimension) was received during discussions. Several options concerning the efficiency of sampling were considered. The results of the analysis showed that the reduction in the number of price collections would not impair the quality of the CPI.

During discussions, it was stressed that it would be valuable if information on the impact on the annual rate of change for Yerevan would be available. With reference to Council Regulation (EC) No 701/2006, price collection for products are known to typically show sharp and irregular price changes within the same month, in particular energy products and fresh food, such as fruit and vegetables, should take place more frequently. Therefore, no changes will be made in the present price collection practice for fruit, vegetables and potatoes. An issue regarding more frequent price collection for fuels has to be considered.

Missing prices

Practical cases of missing prices were discussed, and Armenian specialists explained their solutions determined taking into account the reasons of absence of prices. The procedure for the treatment of missing prices is established in accordance with the requirements for the HICP.

Construction of weights

The issue of the HICP weights was discussed in connection with the work on the implementation of the COICOP classification carried out by the Household Surveys Division. As it was mentioned above, COICOP has been used in the HBS since January 2012, and final data on monetary consumption expenditure by COICOP categories for 2012 will be available in 2013. Therefore, it will be possible to use these data for the construction of weights for the compilation of the CPI and the interim HICP only in 2014. However, the specialist of the Price Statistics and International Comparisons Division is currently carrying out work on the reclassification of expenditure data from the national COICOP classification to COICOP/HICP.

The change of the present practice of weight revision on a five-yearly basis to annual revision was discussed.

Preparation for a meeting at the Yerevan City Statistical Agency

According to the agenda, a meeting with the staff of the Yerevan City Statistical Agency was planned. The main points of discussion with price collectors were identified. It was agreed with

Armenian specialists that during the meeting it would be necessary to touch upon the issues regarding the eventual reorganisation of the price collection procedure and possible changes in the work of price collectors.

During the meeting at the Yerevan City Statistical Agency, the MS Experts also expressed a wish to know more about the practical work of price collectors: price collection form and the process of filling it in, entry of the data collected into Excel worksheet, data transmission to the central office, collection of additional information about the characteristics of products and replacements, organisational arrangements.

After the visit, the MS Expert presented to the staff of the Price Statistics and International Comparisons Division the experience on the price data collection procedure at Statistics Lithuania and the questionnaire used for price registration as well as other information concerning the consumer price survey. Some recommendations were given on how it would be possible to improve the questionnaire used for price collection in Armenia. It was also proposed to consider Lithuanian experience while preparing a plan for the reorganisation of the price collection procedure in Armenia. Since the procedure of the data collection in Latvia is very similar to the procedure used in Lithuania, it would be useful to take into consideration Latvian experience as well.

Application of the COICOP/HICP classification

The COICOP/HICP classification is adapted to the needs of the production of the HICP. It was emphasized that there are some differences between COICOP and COICOP/HICP. The MS Experts underlined that this should be taken into consideration while introducing HICP requirements and standards. During the discussions, it became clear that some extension of the current coverage of the national CPI would be necessary. A certain delay occurred in the implementation of the COICOP/HICP since this task is closely related to the optimisation of the CPI sample in general and the availability of expenditure data from the HBS. The BC specialists were also informed about a draft 5-digit COICOP classification, which will serve the needs of the HICP, HBS and PPP in future.

Quality adjustment issues

Since the previous mission, when the MS Experts presented an overview of quality adjustment methods, no substantial progress was reached. Armenian specialists explained that there were not many cases where quality adjustment was needed since replacements with similar characteristics could be found. During discussions, it was clarified that, in fact, some quality adjustment methods were used in practice. However, the adjustment of prices in case of replacements was not treated as quality adjustment. For quality adjustment, mostly direct comparison and overlap methods are used.

Such issues as the identification of consumption segments, stratification, methods of quality adjustment to be applied when the replacement product-offer differs significantly in quality from the preceding offer, price determining characteristics (brand, material, make) to be considered were discussed. Distinguishing between minor and major changes helps to decide whether quality adjustment is necessary. The MS Experts once again encouraged the BC specialists to study the CENEX Handbook on the application of quality adjustment methods in the HICP (hereinafter referred to as CENEX Handbook) and to start applying the quality adjustment methods suggested in practice. The case of washing machines was investigated, and the application of suitable methods was explained.

Quality adjustment for technological products and some services, e.g. computers, Internet services, was discussed. It was stressed that products with a rapidly developing market require more frequent replacements than annual due to quality changes. As one of the options for data processing equipment the monthly chaining and replenishment method was examined. This is a variant of the overlap method when only matched models of two adjacent periods are compared, samples are updated monthly, and results are linked. Meanwhile, it was stressed that the recommendations elaborated by the CENEX Handbook should be considered as well.

Timing of entering prices for services into the HICP

Minimum standards for the timing of entering purchaser prices in the HICP have been implemented by the NSSRA for package holidays and airplane tickets in the CPI calculation. In Armenia, for some services with a long consumption period, e.g. educational services, the price for a service is divided by the number of months when the service is consumed, and each month only part of the price is included in the calculation. It was emphasised by the MS Experts that a full price has to be entered in the HICP calculation in the month when the consumption of the service has started.

Road map for the reorganisation of the price collection procedure

The MS Experts together with the specialists of the Price Statistics and International Comparisons Division elaborated a specific road map for the reorganisation of the price collection procedure in Armenia. The main activities that should be carried out before the last MS Expert mission (Activity E.6 – Review of the implementation) were identified and put into the road map. It covers the following activities:

1. To prepare a document which would describe the aim and arguments for the reorganisation of the price collection procedure, to present calculations on the impact on the CPI, conclusions and proposals – 4th quarter of 2012.
2. To continue the analysis of the impact on the CPI after reducing the frequency of price collections per month until July 2012 – 3rd quarter of 2012.
3. To consider the experience of Lithuania and Latvia in the field of the price collection procedure and to take a decision on the most appropriate way of reorganisation – 4th quarter of 2012.
4. To review and optimise the outlet sample in different settlements – 4th quarter of 2012.
5. To prepare a detailed plan for the reorganisation of the price collection procedure – 4th quarter of 2012.
6. To organise a training for price collectors – 2013.

Other issues

A proposal for an extra activity in the framework of the Twinning Project – a training workshop to be held in July 2012 – was discussed. The issue of possible topics to be included in the agenda was deliberated, and an agreement was reached.

The overall road map for the component was updated and the necessary next steps have been established.

A briefing with the BC Component Leader Mr Gagik Gevorgyan and BC Project Leader, the President of the NSSRA, Mr Stepan Mnatsakanyan took place at the end of the mission. The findings, conclusions, recommendations and actions to be carried out before the next activities were presented and discussed.

3. Conclusions and recommendations

A reduction in the number of price observations is necessary. The analysis prepared by the BC specialists shows that the impact on the all-items price index of the reduction in the frequency of price collections from three to two per month is negligible. In order to get more robust results, based also on the analysis of annual rates of change, it was recommended to continue the pilot calculations of the CPI until July 2012 and to analyse the results of the assessment of the impact on the CPI for Yerevan.

It was recommended to prepare a detailed plan for the reorganisation of the price collection procedure. Ideally, the plan should cover all activities indicated in a special road map, which was drafted during the mission and presented in section 2. Assessment and results of this Mission Report.

Further implementation of quality adjustment methods should be carried out. While in the NSSRA the main method applied when introducing newly significant products into the CPI is the overlap method, it is recommended to avoid this method and pay attention to other suitable quality adjustment methods in order to comply with the HICP requirements. A good starting point could be the studying of the cases described in the CENEX Handbook and gradually adapting them to the Armenian situation with the following implementation in practice.

The continuation of work on the implementation of the COICOP/HICP classification in the price statistics environment is essential for the development of the HICP. While this process involves also other domains of the HICP compilation methodology, like the availability of appropriate weighting information, it is necessary, in close cooperation with IT specialists, to start the process of adapting the existing Excel solution for experimental HICP compilation without unnecessary delay – in order to reach the mandatory result of the Twinning Project component.

It should be noted that the NSSRA plans concerning the HICP are very ambitious, and from the MS Experts perspective it seems not realistic to reach compliance with the main EU standards and requirements within the framework of the present Twinning Project. The experience of Lithuania and Latvia proves that the implementation of the HICP is a time-consuming and complex work. To start the calculation of the interim HICP, it is at least necessary to introduce the COICOP/HICP classification, a common index reference period and a common price reference period. For the HICP, Commission Regulation (EC) No 1708/2005 sets the common index reference period as 2005 = 100. The period in which reference prices are valued should be December of the year $t-1$. The HICP weights should be price-updated to prices of the preceding December.

Taking into consideration the fact that the national CPI and the HICP have some differences in concepts and purposes as well as the experience of the EU MSs in the field of the compilation of both indicators, it is recommended to reconsider the plans concerning the replacement of the national CPI with the HICP. Stopping the production of the national CPI might cause some problems in satisfying national purposes and needs.

In order to speed up the process of the implementation of the minimum standards and the main requirements for the HICP as well as to start the calculation of the interim HICP, it is necessary to increase the number of the staff of the Price Statistics and International Comparisons Division (at least by two staff members) and to strengthen the capacity.

Further technical assistance and advice on the transposition of the EU legislation into the national statistical environment would be needed for the NSSRA, and, possibly, it could be provided by a different instrument (e.g. TAIEX) in future.

4. Actions before the next activities (E.5 and E.6)

The next activity within Component E is a Study visit to Statistics Denmark, scheduled to take place in June 2012. The final activity of Component E is the Reviewing mission E.6 that will take place either in November or in December 2012. An extra Activity, a Training workshop E.4.2 within the Twinning Project is foreseen in July 2012.

It was agreed between the BC specialists and the MS Experts that the following work and actions should be undertaken before the next activities:

- To continue the analysis of the impact on the CPI for Yerevan after reducing the frequency of price collections per month;
- To review the Armenian CPI sample in order to assess the consumption categories of the COICOP/HICP which potentially should be included in the HICP coverage;
- To describe in detail the current approach to the treatment of seasonal products in the Armenian CPI (*written material; have it translated into English*);
- To carry out preparatory work for the extra Activity E.4.2 – Training workshop ;
- To document the work carried out(*written material; have it translated into English*)
 - ✓ on the implementation of quality adjustment procedures,
 - ✓ on the implementation of the COICOP/HICP classification,
 - ✓ on the compilation of the CPI weights;
- To prepare a detailed plan for the reorganisation of the price collection process (*written material; have it translated into English*);
- To prepare a short report on the progress achieved before the Reviewing mission E.6 (*written material; have it translated into English*).

Annex 1. Terms of Reference (E.4); 2–6 April 2012

Activity E.4 Organization: HCPI workflow

1. Purpose of activity

The purpose of the activity is to follow up on the work that has gotten started already and according to the following items described in the roadmap of the component (annex of E.3 report):

- Sampling and Quality Adjustments:
 - Evaluation of not collecting prices on the 1st of every month and of the possibility of reducing the number of price collections;
 - Analysis of possible organisational changes implied by changes in price collection;
 - Conclusions on yearly updating of sample of goods and services in basket, and an evaluation of the process of ensuring that sufficient elementary aggregates are included to represent the diversity of items within each COICOP category;
 - Determination on consumption areas for which to change quality adjustment method, for technological products but also for other products that are less complicated.
- Weighting:
 - Conclusions concerning application of the COICOP/HICP (incl. car insurance);
 - Conclusions on new production system for weights.
- Price concept:
 - Discussions and conclusions on more efficient solution for missing/matching prices;
 - The price of services to be included in the month where the service is consumed.

2. Expected output of the activity

Status on the above issues. Discussions should be taken with one or some regional statistical agencies in order to discuss the possible re-organizing of price collection and data processing. The documentation process should be evaluated. If needed, the roadmap of the component should be updated.

3. Project Participants

Mr. Gagik Gevorgyan, Member of State Council on Statistics (BC Component Leader)

Mr. Gurgen Martirosyan, Head of Prices Statistics and International Comparisons Division

Ms. Mariam Yeritsyan, Main Specialist, Prices Statistics and International Comparisons Division

Mr. Oskars Alksnis, Head of Section, Price Statistics Department, Central Statistical Bureau of Latvia;

Ms. Nadezda Alejeva, Head of Division, Price Statistics, Statistics Lithuania

Other NSSRA staff taking part in the activity:

Yerevan City Statistical Agency of NSSRA

Annex 2. Meeting Programme for MS Experts: 2–6 April 2012

<i>Time</i>	<i>Place</i>	<i>Event</i>	<i>Purpose / detail</i>
Monday, April 2 nd Morning	Congress Hotel	Meeting with RTA	To discuss the programme of the week
Afternoon	NSSRA	Meeting with BC Component Leader and Experts	Current status. Progress and developments since last activity (E3)
Tuesday, April 3 rd Morning	NSSRA	Meeting with BC Experts	Organisation of the future data collection and data processing: analysis of consequences of reduced price collection, fewer collection days
Afternoon	NSSRA	Meeting with BC Experts	Continuation of data collection issues, and discussion of the production system: 1. Missing prices 2. Construction of weights
	NSSRA	Meeting with BC Experts	Preparing for meeting with regional statistical agency in the light of the preceding discussions
Wednesday, April 4 th Morning	NSSRA	Meeting with BC Experts	Discussion of 1) the application of COICOP/HICP; and 2) elementary aggregates and diversity of items per COICOP category
	NSSRA	Meeting with BC Experts	Status and discussion of quality issues: 1) for which consumption areas will change be introduced? 2) adjustment for technological products be done? Services: to be included in the index the same month?
Afternoon	Yerevan Statistical Agency	Meeting with price collectors	Discussion of the possible re-organizing of the work processes related to the de-central data collection and data processing
Thursday, April 5 th Morning	NSSRA	Meeting with BC Experts	Follow up on the experience and input from the Yerevan statistical agency
Afternoon	NSSRA	Meeting with BC Component Leader	Update of the road map and agreement on the necessary next steps.
Friday, April 6 th Morning	NSSRA	Ad-hoc meetings	Drafting of report and preparation of presentation on conclusions.
Afternoon	NSSRA	Debriefing with BC Project Leader	Conclusions, decisions and recommendations. Consequences for the next activity and implied work programme for BC Experts

Annex 3. Persons met

Mr Stepan Mnatsakanyan, President of the NSSRA, BC Project Leader
Ms Anahit Safyan, Head of the International Statistics Cooperation Division
Mr Gurgen Martirosyan, Head of the Prices Statistics and International Comparisons Division
Ms Mariam Yeritsyan, Main Specialist, Prices Statistics and International Comparisons Division
Mr Vrezh Avetisyan, Head of Yerevan Statistical Agency of the NSSRA
Mr Hovhannes Hayrapetyan, Head of the Trade and Prices Statistics Division, Yerevan Statistical Agency of the NSSRA

NSSRA Price Statistics and International Comparisons Division Staff

Gayane Petrosyan, NSSRA Price Statistics and International Comparisons division, chief specialist
Karine Avetisyan, NSSRA Price Statistics and International Comparison division, leading specialist
Hasmik Karapetyan, NSSRA Prices Statistics and International Comparisons division, 1st class specialist
Narine Baboyan, NSSRA Price Statistics and International Comparisons division, 1st class specialist
Lusya Yermoyan, NSSRA Price Statistics and International Comparisons division, statistician
Lida Grigoryan, NSSRA Price Statistics and International Comparisons division, statistician

NSSRA Yerevan Regional Agency Price Collectors

Hasmik Apresyan, NSSRA Yerevan Regional Agency, price collector-statistician
Arpine Mkhitarian, NSSRA Yerevan Regional Agency, price collector-statistician
Narine Aghavelyan, NSSRA Yerevan Regional Agency, price collector- statistician
Margarita Shahgaldyan , NSSRA Yerevan Regional Agency, price collector-statistician

Annex 4. Analysis of the reduction of price collections

*Update of the note produced by the Prices Statistics and International Comparisons Division of the NSSRA before E.4 as a follow-up to the E.1/E.2 report (section 3.2). The information has been prepared by Price Statistics division of NSSRA within the frame of **Twinning Project's Harmonized Consumer Price Index**, component E, based on activity E 3, following the recommendations of section 3.2 of E.1/E.2 Mission report and section 3 of E 3 Mission Report.*

Various calculations and analysis had been carried out. The pilot calculations of Consumer Price Index had been extended and continued for the period of January-December 2011, based on the example of Yerevan city.

- Instead of 3 times collection of prices and tariffs for each month, taking the average calculations of 470 name of commodities-services available in CPI (901 individual items of commodities and services, representative) at the beginning of each month as of 1st day of each month observed price information, keep only the observed price information as of 10th and 20th dates. The summarized indicators are shown in the table 1.

Table 1

	2010	2011											
		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Main CPI	100.0	107.9	108.6	109.1	108.8	108.7	107.4	104.2	103.6	104.6	104.9	106.4	109.0
		3.5	0.6	0.5	-0.3	-0.1	-1.2	-3.0	-0.6	0.9	0.3	1.4	2.5 ^{*)}
CPI	100.0	107.2	108.1	108.5	108.4	108.1	106.3	103.6	103.5	104.4	104.8	106.4	109.3
Calculated by 2 observations		2.8	0.9	0.4	-0.2	-0.3	-1.6	-2.6	-0.1	0.8	0.4	1.6	2.7 ^{*)}
Difference in %	100.0	0.8	0.4	0.6	0.4	0.7	1.1	0.6	0.1	0.2	0.1	0.0	-0.3
		0.7	-0.3	0.1	-0.1	0.2	0.4	-0.4 ^{*)}	-0.5	0.1	-0.1	-0.2	-0.2

^{*)} price increase compared to previous month

- Instead of 3 times collection of prices and tariffs for each month, taking from the average price calculations of 470 categories of commodities –services available in CPI (901 individual items of commodities and services, representative) at the beginning of each month as of 1st day of the month observed price information, keep only the observed price information as of 10th and 20th dates, by keeping only the 3 times observations of 44 agricultural products under the group named fruits, vegetables and potatoes. Summarized indicators are shown in the Table 2.

Table 2

	2010	2011											
		I	II	III	IV	V	VI	VII	VIII	IX	X	VII	VII
Main CPI	100.0	107.9	108.6	109.1	108.8	108.7	107.4	104.2	103.6	104.6	104.9	106.4	109.0
		3.5	0.6	0.5	-0.3	-0.1	-1.2	-3.0 ^{*)}	-0.6	0.9	0.3	1.4	2.5 ^{*)}
CPI calculated	100.0	107.7	108.5	109.1	108.7	108.6	107.4	104.1	103.5	104.5	104.9	106.3	109.0
by 2 observations		3.3	0.8	0.5	-0.3	-0.1	-1.1	-3.1 ^{*)}	-0.5	0.9	0.4	1.4	2.6
Difference in %-	100.0	0.2	0.0	0.0	0.1	0.1	0.0	0.2	0.1	0.1	0.0	0.1	0.0
		0.2	-0.2	0.0	0.1	0.0	-0.1	0.1 ^{*)}	-0.1	0.0	-0.1	0.0	-0.1

^{*)} price increase compared to previous month

The calculations of CPI combined in 10 and 65 item categories by the mentioned two methods are shown in the attached tables.

The purpose of the calculations was to determine the following:

1. What will be the impact of reducing the number of price collections in Armenia on the CPI (if instead of collecting prices 3 times in a month they will be collected 2 times in a month),
2. As a result of reducing the frequency of price collections to reduce and alleviate the burden of price collector statisticians,
3. To give an opportunity to price collectors to be involved in the following additional activities:

- the sampling of commodities-services of the observed trade and services outlets
- regular adjustments of technical characteristics of commodities-services,
- if the commodities-services are going out of the market, to replace them with new products,
- to observe the prices of newly appeared products or services in the market and calculation of average prices,
- in case of necessity to include new commodities and services into CPI calculations (to expand the list of the observed commodities - services). For example, insurance services, housing services, long –term used commodities, etc.

The mentioned activities will be continued throughout the whole year.

Conclusions:

1. Taking into consideration the highly seasonal nature of the products included in the product category of fruits, vegetables and potato, as a result of which the prices of those products have drastic fluctuations throughout the different periods of the year and even during the month and also taking into account their relatively high density (thus having bigger impact on the whole CPI), to keep the current routine and conduct the price collections three times in a month (on the 1st, 10th and 20th days of the month and days nearest to these dates). According to those calculations, the price inflation for Yerevan city in December 2011 compared to 2010 was 9.3% instead of 9 %, in case if the price collections for all commodities-services will be carried out 2 times in a month, thus making the difference in 0.3 % points (see table 1). And in case of 3 times price collections of vegetables and potatoes, the total price inflation remained unchanged, with variation of 0.0 % (table 2). The monthly inflation deviation ranged between 0.4-0.7 % for the first case, and for the second case it ranged between -0.2 up to 0.2 % points.
2. Taking into account that the monthly changes of prices and tariffs of other commodities and services that are included in the CPI calculations are not that significant and their impact on CPI is not big enough, hence to reduce the frequency of price collections of those commodities and services and instead of having 3 price collections in a month to make price collections twice in a month, on the 10th and 20th days or the dates nearest to these days of each month.
3. To involve price collector statisticians more into the activities related to assessment of representative items -services and in the process of annual revision and updating of those.
4. Make appropriate methodological and programmatic –technological changes in Armenia, for calculation of CPI and HICP, in future by keeping only HICP.
5. To carry out the revision of weights and structure of commodities-services more often (possibly once a year) for CPI calculations, by replacing them with new representative items - service types.
6. To give instructions and conduct relevant training workshops for price observer statisticians.
7. To organize joint discussions with EU Experts and consumers, in order to explain the purpose of the mentioned organizational and methodological changes and their impact on the further development of price statistics.

The mentioned activities will be carried out during 2011-2012 within the frame of Twinning Project.

Annex 5. Road map (updated during E.4)

Road map the an HICP for Armenia

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