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IMPLEMENTING THE ROLLING PRICE SURVEY APPROACH

David Roberts

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Introduction

The current round of the International Comparison Program (ICP) has two objectives. The first is to coordinate the eight regional comparisons that are being carried out for the reference year 2017, combine them in a single comparison, the global comparison, and publish the results of the global comparison in the fourth quarter of 2019. The second is to increase the frequency of comparisons from once every six years to once every three years. On the advice of the Friends of the Chair, the United Nations Statistical Commission (UNSC) has recommended that the ICP adopts the *Rolling Price Survey Approach (RPSA)* to obtain the desired increase in frequency and that the global and regional comparisons for the next reference year - which will be 2020, three years after 2017 – should be made with the RPSA. The first objective, as the most immediate, has been foremost in the deliberations of global, regional and national coordinators, but now it is time for a more focused discussion on how best to attain the second objective.

The paper

The paper has been drafted to promote such discussion. Its underlying premise is that the difficulty regions will face when implementing the RPSA is not the change in approach itself but making the change in step with each other so as to meet the requirements of the global comparison vis-à-vis the pricing of core products and the inter-region validation of their prices. Implementation will need closer collaboration and coordination between and within regions and stricter adherence to global and regional timetables than is presently observed. Respecting deadlines will be particularly important as the RPSA allows little time for slippage in data delivery dates.

The paper begins with a description of the RPSA. This is followed by a review of the European Union (EU)'s experience with the approach between 1999 and 2013. During this period participating countries were divided into groups for operational purposes. The groups had to be coordinated and supervised by Eurostat (the Statistics Office of the European Union) so that they could be combined in a single comparison covering EU member states and EU candidate countries. The situation that Eurostat faced then is similar to that which the ICP faces now. Knowing how Eurostat dealt with the situation provides useful insight on how the ICP could proceed with implementation. Finally, after introducing the issues surrounding the key elements of the RPSA which coordinators at all levels will need to address prior to implementation, the paper concludes with an assessment of some of the alternative ways that have been proposed for carrying out ICP 2020 within the three years scheduled.

Five tables accompany the text. For convenience they have been grouped together in an annex after the text.

Rolling Price Survey Approach

The RPSA was designed specifically to increase the frequency of comparisons and to ease the response burden on participating countries by collecting the prices for the reference year over three years. In theory the approach can be employed to collect prices for all types of goods and services comprising final expenditure on GDP but, as explained below, in practice it is only used to collect prices for consumer goods and services.

Table 1 shows the collection of prices for consumer products spread over three years: year t-1, year t and year t+1, where year t is the reference year. This requires household consumption to be divided into three equal parts with one part surveyed each year. Price collection is cyclical. The prices of goods and services surveyed in year t-1 are resurveyed in year t+2; those surveyed in year t are resurveyed in year t+3; and those surveyed in year t+1 are resurveyed in year t+4. The products to be priced and their specifications are updated and revised between surveys. The three-year cycles follow immediately one after another so that the collection and processing of price data is continuous.

Spreading price collection over three years has a number of advantages of which the first and foremost is that it enables comparisons to be made at least once every three years. Logistically and resource wise, it makes it easier for participating countries to include ICP data collections in their national data collection programmes. It also fosters continuity of expertise in their national statistics institutes, expertise which is often dissipated when there is a long gap between reference years. Operationally, it allows more time for the creation of product lists which should lead to a more balanced selection of products and improved product specifications. It also allows greater flexibility in the design of survey frameworks; they can be better tailored to suit the outlet distribution profiles of the products being priced.

The prices collected for consumer products in the year t-1, year t and year t+1 are used to calculate PPPs for household consumption for the reference year t. Prices surveyed in year t can be used directly in the calculation, but those surveyed in year t-1 and year t+1 have to be either extrapolated or retropolated to year t before they can be included. The extrapolation or retropolation is done at the basic heading level with temporal adjustment coefficients. In practice, it is the PPPs of the basic headings and not the prices from which they are derived that are adjusted. Providing the data underlying the temporal adjustment coefficients and the basic headings are reliable, the accuracy of the extrapolation or retropolation - that is, the degree to which the adjusted PPPs are close to the PPPs that would have been calculated had prices been collected in the reference year – will depend largely on the strength of the correlation between the coverage of the temporal adjustment coefficients and the coverage of the basic headings they are to adjust. It is the availability of temporal adjustment coefficients that closely mirror the basic headings to be adjusted that determines whether or not the RPSA can be employed.

Participating countries usually have consumer price indexes (CPIs) with sub-indexes that can serve as temporal adjustment coefficients and so the RPSA can be used to collect prices for household consumption. Few countries have temporal adjustment coefficients that are suitable for moving through time the PPPs of basic headings under housing services, government services and capital goods and so the RPSA is not employed. Prices for these goods and services are collected either in the reference year or retrospectively in the year following the reference year.

It should be noted that implementing the RPSA does not mean a change in the methods that have already been adopted by the ICP. All that the RPSA does is to replace one big survey by three smaller surveys which are carried out in the same way as the big survey but over three years instead of over one year.

EU comparisons

The European Union has been using the RPSA to make annual comparisons since 1991. As described in the previous section, prices for consumer goods and services are collected over three years with the basic heading PPPs of non-reference years centred on the reference year with sub-indexes extracted from the CPIs of participants. Correspondence between the basic headings and the sub-indexes tends to be good in EU countries because they are based on the same classification (COICOP[1]). Housing services, government services and capital goods[2] are priced annually as every year is a reference year.

Household consumption is broken down into six separate price surveys as shown in Table 2. Two surveys are conducted each year: one in the first half of the year (April-June), the other in the second half of the year (October-December). The prices collected are mostly point-in-time capital city prices which are converted first to national average prices with spatial adjustment coefficients then to annual national average prices with temporal adjustment coefficients. The spatial adjustment coefficients like the temporal adjustment coefficients are usually based on price data taken from the CPI.

Prior to 1999, the six surveys were organised directly by Eurostat but in 1999 the number of countries participating in EU comparisons jumped from 20 to 31, which at the time was too many for the six surveys to continue to be managed centrally. Organisation was decentralised. Participating countries were divided into three groups and later, when the number of participants rose to 37, into four groups. Each group was headed by

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1 "Classification of Individual Consumption According to Purpose (COICOP)", *Classification of Expenditure According to Purpose*, United Nations, New York, 2000.

2 To be precise, only construction is priced every year. Machinery and equipment are priced once every two years.

a group leader selected from among the countries in the group. The group leader was responsible for drawing up the group's product lists for the surveys in consultation with the other members of the group; visiting group members to ensure uniformity of product selection and pricing procedures; and editing the price data provided by group members. The group leaders together with Eurostat were responsible for making sure that the product lists for the groups had a sufficient number of overlap (core) products at each basic heading so that comparisons could be made across groups. Eurostat oversaw the collaboration between groups and ensured a harmonised approach to the surveys by the groups. Group leaders met together twice a year, in early spring and early autumn, and twice a year with their groups, three or four weeks after the group leaders' meeting. Group leaders also attended the group meetings of other groups. The groups were abolished in 2013.[3] Now the six surveys are managed centrally through a contractor overseen by Eurostat.

The period 1999 to 2013 is of interest because there are similarities between the EU setup as it was then and the setup the ICP is endeavouring to put in place for 2020. This becomes more obvious if *Eurostat* is replaced by *global coordinator*, *group leader* by *regional coordinator*, *country group* by *region*, *group product list* by *regional product list* and *European product list* (a combination of all group product lists) by *global product list* (a combination of all regional lists). Even so the situations are not exactly the same. The groups were artificial constructs and not autonomous entities as are ICP regions. Group comparisons of themselves were not meaningful and were not published whereas regional comparisons are both meaningful and published. The groups were linked using overlap products which were defined as products selected to be priced in two or more groups. ICP core products are selected to be priced in all regions, although that does not mean they are.

Then (as now) each of the six surveys took around 24 months to complete and had five phases – (1) the preview and planning phase, (2) the pre-survey and product list creation phase, (3) the price collection and intra-country validation phase, (4) the inter-country validation phase, and (5) the evaluation phase. The phases were broken down into steps. In Chapter 5 of the *Eurostat-OECD Methodological Manual*[4], Box 5.2 contains a generalised timetable for the survey cycle and Box 5.3 contains a generalised timetable for a survey and its steps. Using these generalised timetables as templates, generalised timetables that illustrate how the survey cycle and survey steps could be ordered for ICP comparisons have been derived. These timetables are in Tables 3 and 4. They cover both the global comparison and the regional comparisons on the assumption that the breakdown and pricing of household consumption is the same for all regions. They are not fully synchronised but that should not limit their usefulness to discussion.

Table 3 covers the five phases of a survey cycle. It is assumed that there will be three surveys – one survey a year – and that price collection will be quarterly over the survey year. Table 4 lists the steps of a survey together with who carries out the steps and when the steps are taken in relation to when prices are collected. Here too it is assumed that price collection will be quarterly over the survey year. Each survey will take between 30 to 36 months to complete.

From Table 3 it can be seen that in the reference year 2020, when the preview and planning phase and the pre-survey and product list creation phase for survey 3 are underway, work also continues on surveys 1 and 2: the inter-country validation phase, the inter-region validation phase and the evaluation phase in the case of survey 1 and the price collection and intra-country validation phase in the case of survey 2. In terms of the survey steps in Table 4 this means that in 2020 steps 01 to 15 are being undertaken for survey 3; step 16, price collection and intra-country validation, is underway for survey *2;* and steps 17 to 28 are being carried out for survey 1. Once the cycle comes round for the second time, recommencing in 2021, coordinators at all levels will be occupied with all three surveys each and every year of the cycle. A reorganisation of responsibilities within their offices may be necessary to accommodate this.

Table 4 is based on the assumption that there will be two regional coordinators' meetings a year, one in March the other in September, and that these meetings will be followed by regional meetings, also in March and September. It reflects the close collaboration and co-ordination that the surveys require between all parties involved: between countries within a region and between regions within the global context. In particular, the

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[3] More details about the groups and the survey process can be found in Chapter 5 of *Eurostat-OECD Methodological Manual on Purchasing Power Parities, OECD, ISBN 978-92-64-18923-2*

[4] *Eurostat-OECD Methodological Manual on Purchasing Power Parities, OECD, ISBN 978-92-64-18923-2*

timely inter-region validation of core products will require regions to price the same basic headings at the same time. If they do not, and inter-region validation of core products is delayed until all regions have completed their price surveys, inter-region validation could become a mechanical operation with outliers being discarded just because they are outliers. Lack of time to verify outliers thoroughly is likely to be detrimental to the quality of inter-region linking factors. If regions are unable to implement the RPSA in unison to the degree required by the validations of core product prices, perhaps the prices of core products should be collected by a special survey undertaken by all regions at the same time.

The RPSA worked for EU comparisons during the fourteen years reviewed because Eurostat, group leaders and participating countries agreed on the timetable together and then strictly adhered to it. This practice continues today. Each year, in November, Eurostat reviews the survey timetable with participants. Coordination between the groups was supported by the on-line tools developed by Eurostat. These remain in use. They enable participants to follow the entire process of list creation, price collection, validation and calculation which helps to ensure that they start and finish each step on time.

The on-line tools also allow participants to view each other's data. This provides transparency and fosters the building of trust between them which is important. A country's PPPs depend not only on its own price data but also on the price data of all other countries in the comparison. Its PPPs can therefore be adversely affected by errors in the data of other participants. A country needs to be able to satisfy itself that this is not the case. This point may need to be revisited when considering the efficacy of the temporal adjustment coefficients countries provide.

Key elements

The RPSA only effects the pricing of consumer goods and services. Prices are collected over three years with one third of the basket of consumer goods and services priced each year. Implementation starts by dividing household consumption in three equal parts and assigning each part to one of the three survey years. Division should be based on expenditure (each survey year should cover approximately one third of household final consumption expenditure) and on products by type and outlet distribution profile. Each part can be further divided. EU-OECD comparisons, for example, sub-divide each part into two: (1.1) *food and beverages* and (1.2) *clothing and footwear* are priced in the first year of the survey cycle; (2.1) *articles for house and garden* and (2.2) *transport equipment; catering and accommodation services* are priced in the second year of the survey cycle; and (3.1) *services* and (3.2) *furniture and health* are priced in the third year of the survey cycle.

The requirements of the global comparison are an important consideration when making the divison. The global comparison for a reference year is obtained by combining the regional comparisons for the reference year. The regional comparisons are combined by comparing the prices of core products across regions. Core products are identified and defined by the global coordinator in consultation with regional and national coordinators and are added to the regional product lists prior to price collection. From the perspective of the global comparison, it is important that regions have a harmonised approach to price collection, that they price a sufficient number of core products and cover all basic headings, and that the inter-region validation of the prices of core products is timely and thorough. In terms of the RPSA this means that regions should prepare surveys, collect prices and validate prices in unison in line with a global timetable.

Neither the division of household consumption into parts nor the choice of year in the survey cycle each part is to be surveyed should be left to the regions to decide for themselves by themselves. Otherwise it is likely that each region will have its own survey cycle and that the inter-region validation of the prices of the core products will have to wait until all regions have completed their price collections which, as already mentioned, could adversely affect the quality of the inter-region linking factors to which the prices of the core products give rise. To avoid this all regions should follow the same survey cycle. Together they can either agree on their own schedule of surveys or agree to adopt the EU-OECD survey cycle which is tried and tested and well-established. Adopting the EU-OECD cycle does not mean following the EU-OECD practice of carrying out one survey in the first half of the year and the other survey in the second half of the year (although it may be worth considering). The two surveys can be combined or run in parallel and the frequency of data collection can be quarterly.

Drawing up the global timetable and the regional timetables is the second step towards implementation. The global timetable is the master timetable giving the deadlines, such as the delivery dates of the various data sets required for the global comparison, that have been agreed by the global coordinator and the regional coordinators. It ensures that all regions are in unison, marching in step, in time, to the same tune. The regional timetables give the region-specific timelines agreed by the region's regional coordinator and national coordinators. They dovetail with the global timetable respecting the same deadlines. Adherence will ensure that participating countries too are in step, in time, marching to the same tune. Drawing up the timetables involves working backwards and forwards in a top down bottom up series of iterations. The starting point is the proposed publication date of the global results. In the first instance the timetables should not be too ambitious. Their schedules can be tightened up in later rounds when participants have become familiar with the approach. It is important to recognise what countries think is or is not feasible. A region may have to divide its countries into two tiers: those that can meet the global deadlines and those that cannot and have to be introduced into the comparison at a later date.

The generalised timetables in Tables 3 and 4 cover both global and regional comparisons on the assumption that the treatment of household consumption is the same for all regions. If this assumption does not hold with each region having its own survey schedule, the complete list of core products for ICP 2020 will have to be decided in 2018 before price collection begins and inter-region validation of core products may have to wait until the first half of 2022. Defining core products two or three years before they are to be priced does not seem a good practice as products can drop out of the market to be replaced by new ones that may not be available in all regions or no longer comparable. As core products will not necessarily be priced in the same year this could complicate the inter-region validation as their prices may require temporal adjustment prior to validation. Apparent error may be due to the coefficient and not the observation.

The third step towards implementation is matching the basic headings and temporal adjustment coefficients. In EU comparisons the coefficients are used first to convert the point-of-time prices to annual prices for the year in which they were collected. The annual prices are then used to calculate basic heading PPPs for the year. The temporal adjustment coefficients are then applied to extrapolate or retropolate the PPPs of the basic headings priced in non-reference years to the reference year. In other ICP regional comparisons, prices are collected quarterly and annual prices are calculated as the average of the four quarterly average prices. In which case, if the RPSA is adopted, temporal adjustment coefficients will be employed only to extrapolate and retropolate the basic headings of non-reference years.

The reliability of the RPSA depends on the degree to which the coverage of the temporal adjustment coefficients matches the coverage of the PPPs that they are to adjust. The greater the difference in coverage between the sub-index and the basic heading PPPs the weaker will be the correlation between them and the accuracy of the adjusted PPPs questionable. The coefficients are generally CPI sub-indexes or aggregations of CPI sub-indexes. The problem to be faced in this respect is that many of the countries participating in the ICP do not have CPIs that are sufficiently detailed to construct a sub-index specific for each of the 110 ICP basic headings comprising household consumption. For many of the basic headings, these countries they will not be able to provide a sub-index that exactly matches the basic heading. Instead they will have to provide a sub-index that closely approximates the basic heading. Guidelines are needed on what is "closely approximate". They should be global rather than regional. Earlier it was noted that the PPPs of a country depend on the data of all countries and that its PPPs can be adversely affected by errors in the price data of other participants. The quality of a country's PPPs can also be influenced by the suitability of the temporal adjustment coefficients employed by others.

Alternative approaches

The UNSC recommendation that the ICP adopts the RPSA and reduce the interval between comparisons from six years to three years was made in March 2016. The intention was that ICP 2017 would be followed by ICP 2020, and not by ICP 2023 as originally scheduled, and that the 2020 comparisons would use the RPSA. With hindsight this seems to have been over ambitious. The timetable in Table 3 indicates that, if the global and regional comparisons for ICP 2020 are to be made with the RPSA, implementation should have started in the first half of 2018 with price collection commencing in the first quarter of 2019. It is already mid-2018 yet it is far from clear which regions intend to adopt the RPSA, how they plan to go about it, and, given that they are autonomous and have different administrative and financial constraints, the extent to which they are able to colaborate with each

other and be coordinated globally. What is known is that the EU-OECD already employs the RPSA, that neither the Commonwealth of Inpendent States (CIS) nor Asia and the Pacific intend to adopt the approach, and that Africa, Latin America and Carribbean (LAC) and Western Asia are undecided. If the RPSA is not used this time around, there is still a need to identify and agree on how the comparisons for 2020 are to be made. Postponement is also an option, but that could be the thin end of the wedge leading to a repeat of ICP 1993, possibly the Program's nadir.

At a recent LAC meeting for global, regional and national coordinaters, four scenarios were considered. They were proposed by Brazil, Jamaica and Peru with Jamaica proposing two. They are summarised in Table 5 and below.

- The scenario proposed by Brazil is the RPSA. The basket of consumer goods and services to be priced is divided into three parts. The first part is surveyed over each of the four quarters of t-1, the second over each of the four quarters of t and the third over each of the four quarters of t+1. Temporal adjustment coefficients are applied to centre the prices of t-1 and t+1 on the reference year t. The advantages of spreading price collection over three years have already been enumerated in the earlier section on the RPSA. A possible disadvantage that has notbeen mentioned is that, with the publication of results for t in t+2, there may not be sufficient time to validate thoroughly the prices, particularly the prices of core products, collected in t+1. More generally, there is little leeway for deadline overrun.

- The two scenarios proposed by Jamaica are the same but for the timing. In the first, Jamaica I, consumer prices are surveyed in t-1 and in the second, Jamaica II, they are surveyed in t. In neither proposal is the basket of consumer products divided into parts. It is priced as a whole over each of the four quarters of t-1 or of t. Jamaica I makes some concession to easing the response of countries by spreading price collection over two years. The prices of consumer goods and service are collected in t-1 and centred on t with temporal adjustment coefficients, while prices for housing services, government services and capital goods are surveyed in t. In both scenarios there is ample time for validation. Jamaica's own preference is the second scenario. CIS regional cordinators have expressed a similar preference. Given the time constraints it could be the way to go in the interim with the RPSA becoming operational in ICP 2023. Pricing consumer goods and services in each quarter of the reference year side-steps the problems arising from weak temporal adjustment coefficients.

- Peru, like Jamaica in Jamaica II, proposed that all surveys are carried out in the reference year. But, unlike Jamaica I and Jamaica II where the basket of consumer items selected for pricing is priced every quarter, it proposes that the basket is divided into four parts and that a different part is priced each quarter. In other words, each item would be surveyed only once and not four times as in other scenarios. The single quarter prices would be converted to annual prices with temporal adjustment coefficients. Seasonal products would be an exception and priced each quarter. The advantage of pricing the whole basket quarterly is that, by comparing prices between quarters, errors can be identified and rectified. This advantage is lost under Peru's proposal. To some extent the loss is offset by the reduction in response burden. Of the four proposals, Peru's is the only one that reduces response burden. It is also the only proposal that favours point-in-time pricing.

An afterthought

The EU-OECD collects point-in-time prices which are converted to annual prices with temporal adjustment coefficients. Throughout the paper it is assumed that other ICP regions employing the RPSA will collect prices over the four quarters of each of the survey years and the annual average price will be the average of the quarterly average prices. The assumption that regions will continue to collect prices quarterly when following the RPSA is somewhat paradoxical given the reliance of the approach on temporal adjustment coefficients. Surely, if temporal adjustment coefficients are good enough for extrapolating and retropolating basic heading PPPs, they are also suitable for converting point-in-time prices to annual average prices? If they are not suitable what does that say about their suitability with regard to adjusting basic heading PPPs of non-reference years?

Table 1: Data collection under the rolling price survey approach

Surveys	Year t-1	Year t	Year t+1	Year t+2	Year t+3	Year t+4
Household consumption						
01. Prices consumer goods and services: part 1	X→			X→		
02. Prices consumer goods and services: part 2		X			X	
03. Prices consumer goods and services: part 3			←X			←X
Other surveys						
04. Housing services		X			X	
05. Government services		X			X	
06. Capital goods		X			X	
Other data						
07. Temporal adjustment coefficients	X	X	X	X	X	X
08. GDP expenditure weights		X			X	

"X" prices with no year-to-year extrapolation or retropolation, "X→" prices with year-to-year extrapolation; "←X "prices with year-to-year retropolation.

Table 2: EU and OECD Survey Cycle

Cycle	Survey	Coverage
First year	01. Food, drinks and tobacco	Food; non-alcoholic beverages; alcoholic beverages; tobacco.
	02. Personal appearance	Clothing; cleaning, repair and hire of clothing; footwear; goods and services for personal care; personal effects.
Second year	03. House and garden	Materials for the maintenance and repair of the dwelling; household appliances; glassware, tableware and household utensils; tools and equipment for house and garden; non-durable household goods such as products for routine cleaning and maintenance; telephone and telefax equipment; audio-visual, photographic and information-processing equipment; games, toys, hobbies, gardens, plants, flowers and pets; newspapers, books, stationery and drawing materials; electrical appliances for personal care.
	04. Transport, restaurants and hotels	Personal transport equipment; spare parts and accessories, fuels and lubricants for the operation of personal transport equipment; equipment for sport, camping and open-air recreation; catering services; accommodation services.
Third year	05. Services	Maintenance and repair services for the dwelling; water supply; fuels other than electricity and gas; domestic and household services; maintenance and repair services for personal transport equipment; transport services; postal services; telephone and telefax services; maintenance and repair services for major durables; veterinary and other services for pets; recreational and cultural services; other services not specified elsewhere.
	06. Furniture and health	Furniture, furnishings, carpets and other floor coverings; household textiles; medical products, appliances and equipment; out-patient services.

Electricity, gas, housing, hospital services and education are not included in the survey cycle as they are surveyed annually by the European Union and once every three years by the OECD. Other consumer goods and services, such as narcotics, combined passenger transport, major durables for outdoor and indoor recreation, games of chance, package holidays, prostitution, social protection, insurance, FISIM and other financial services, are also not included in the survey cycle either. This is because it is difficult to specify and price products for them that are comparable across countries. Reference PPPs are used for the basic headings containing these goods and services.

Table 3: Generalised timetable for ICP reference year 2020

<table>
<tr><th rowspan="2">Year</th><th rowspan="2">Half year</th><th colspan="3">Household consumption</th></tr>
<tr><th>Survey 1</th><th>Survey 2</th><th>Survey 3</th></tr>
<tr><td rowspan="2">2018 (t-2)</td><td>1st</td><td rowspan="2">Regional and global planning; timetables; creation of product list with core products; defining survey guidelines</td><td></td><td></td></tr>
<tr><td>2nd</td><td></td><td></td></tr>
<tr><td rowspan="2">2019 (t-1)</td><td>1st</td><td rowspan="2">Price collection; intra-country validation</td><td rowspan="2">Regional and global planning; timetables; creation of product list with core products; defining survey guidelines</td><td></td></tr>
<tr><td>2nd</td><td></td></tr>
<tr><td rowspan="2">2020 (t)</td><td>1st</td><td>Inter-country validation; inter-region validation of core products</td><td rowspan="2">Price collection; intra-country validation</td><td rowspan="2">Regional and global planning; timetables; creation of product list with core products; defining survey guidelines</td></tr>
<tr><td>2nd</td><td>Evaluation</td></tr>
<tr><td rowspan="2">2021 (t+1)</td><td>1st</td><td rowspan="2">Regional and global planning; timetables; creation of product list with core products; defining survey guidelines</td><td>Inter-country validation; inter-region validation of core products</td><td rowspan="2">Price collection; intra-country validation</td></tr>
<tr><td>2nd</td><td>Evaluation</td></tr>
<tr><td rowspan="2">2022 (t+2)</td><td>1st</td><td rowspan="2">Price collection; intra-country validation</td><td rowspan="2">Regional and global planning; timetables; creation of product list with core products; defining survey guidelines</td><td>Inter-country validation; inter-region validation of core products</td></tr>
<tr><td>2nd</td><td>Evaluation</td></tr>
<tr><td rowspan="2">2023 (t+3)</td><td>1st</td><td>Inter-country validation; inter-region validation of core products</td><td rowspan="2">Price collection; intra-country validation</td><td rowspan="2">Regional and global planning; timetables; creation of product list with core products; defining survey guidelines</td></tr>
<tr><td>2nd</td><td>Evaluation</td></tr>
</table>

Table 4: Generalised timetable for an ICP survey

Phase	Step		Who	When
Preview and planning	01.	First discussion of main issues at **regional coordinators' meeting**	Global and regional coordinators	Sep (t-2)
	02.	Main issues discussed at **regional meetings**	NSIs; global and regional coordinators	Sep (t-2)
	03.	Preview questions sent to NSIs	Regional coordinators	Nov (t-2)
	04.	Preview answers sent to regional coordinators	NSIs	Feb (t-1)
	05.	Planning decisions prepared by **regional coordinators' meeting**	Global and regional coordinators	Mar (t-1)
	06.	Planning decisions agreed at **regional meetings**	NSIs; global and regional coordinators	Mar (t-1)
Pre-survey and product list creation	07.	Pre-survey product list ready	Regional coordinators	Apr (t-1)
	08.	Pre-survey	NSIs	May-Jun (t-1)
	09.	Draft regional product lists ready	Regional coordinators	Jul (t-1)
	10.	First draft of global product list ready	Global coordinator	Jul (t-1)
	11.	First draft global product list discussed at **regional coordinators' meeting**	Global and regional coordinators	Sep (t-1)
	12.	Second draft global product list ready	Global coordinator	Sep (t-1)
	13.	Second draft global product list discussed at **regional meetings**	NSIs; global and regional coordinators	Sep (t-1)
	14.	Follow up meeting of regional coordinators	Global and regional coordinators	Sep (t-1)
	15.	Final global product list ready	Global and regional coordinators	Oct (t-1)
Price collection and intra-country validation	16.	Price collection and intra-country validation	NSIs	Jan-Dec (t)
Validation	17.	Data cleaning and checking	NSIs; regional coordinators	Jan-Feb (t+1)
	18.	1st global and regional Quaranta tables calculated	Global and regional coordinators	Feb (t+1)
	19	Analysis of 1st global and regional Quaranta tables	NSIs; global regional coordinators	Feb-Mar (t+1)
	20.	1st global and regional Quaranta tables discussed at **regional coordinators' meeting**	Global and regional coordinators	Mar (t+1)
	21.	1st global Quaranta table discussed at **regional meetings**	NSIs; global and regional coordinators	Mar (t+1)
	22.	2nd global and regional Quaranta tables calculated	Global and regional coordinators	Mar (t+1)
	23.	Continuation of validation	NSIs; global and regional coordinators	Apr (t+1)
	24.	Approval of survey results and closure of validation	NSIs; regional coordinators	Apr (t+1)
Evaluation	25.	Country survey reports sent to regional coordinator	NSIs	May (t+1)
	26.	Regional coordinators' survey reports sent to global coordinator	Regional coordinators	Jul (t+1)
	27.	Evaluation at **regional coordinators' meeting**	Global and regional coordinators	Sep (t+1)
	28.	Evaluation at **regional meetings**	NSIs; global and regional coordinators	Sep (t+1)

Table 5: Alternatives

BRAZIL	ICP 2020 ROUND			
	2019	2020	2021	2022
Household consumption	X => 1/3	X 1/3	< = X 1/3	PUBLICATION OF 2020 RESULTS
Housing volumes and rentals		X		
Government compensation		X		
Machinery and equipment		X		
Construction and civil engineering		X		
CPIs and national account deflators	X	X	X	
National account expenditures	X	X	X	

JAMAICA I	ICP 2020 ROUND			
	2019	2020	2021	2022
Household consumption	X =>			PUBLICATION OF 2020 FRESULTS
Housing volumes and rentals		X		
Government compensation		X		
Machinery and equipment		X		
Construction and civil engineering		X		
CPIs and national account deflators	X	X	X	
National account expenditures	X	X	X	

JAMAICA II	ICP 2020 ROUND			
	2019	2020	2021	2022
Household consumption		X		PUBLICATION OF 2020 FRESULTS
Housing volumes and rentals		X		
Government compensation		X		
Machinery and equipment		X		
Construction and civil engineering		X		
CPIs and national account deflators	X	X	X	
National account expenditures	X	X	X	

PERU	ICP 2020 ROUND						
	2019	2020				2021	2022
		Q1	Q2	Q3	Q4		
Household consumption		1/4	1/4	1/4	1/4		PUBLICATION OF 2020 RESULTS
Housing volumes and rentals		X					
Government compensation		X					
Machinery and equipment		X					
Construction and civil engineering		X					
CPIs and national account deflators	X	X				X	
National account expenditures	X	X				X	