



SYNERGIES BETWEEN CPIs AND PPPs AND THE INTEGRATION OF SURVEY ACTIVITIES: THE CASE OF GALAPAGOS ISLANDS

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HISTORICAL CONTEXT

Galapagos islands are part of the economic and politic territory of Ecuador. Since 1973 the islands are a province. It is divided into three cantons. San Cristobal, Santa Cruz and Isabella with a population of 26000 person.

In 1998, the "GENERAL RULES FOR IMPLEMENTING CONSERVATION AND SUSTAINABLE DEVELOPMENT OF THE PROVINCE OF GALAPAGOS" were promulgated. These rules state that islands wages are indexed at 2.0 and 1.75 times those of the continent for public and private employees respectively.

The Galapagos islands were declared a National Park, namely a territory with a special regime. The rights of free residence, property and commerce, may be restricted, a substantial difference from the mainland.

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CURRENT CONTEXT

The 2.0 and 1.75 parameters were externally defined and fixed without any scientific background.

In June 2015, a presidential law has established that government employees in the Galapagos Islands should receive a remuneration equal to the one fixed for government employees in the continental Ecuador, multiplied by the difference between Galapagos consumer price index and continental price index.

The CPI for Ecuador does not include observations for the Galapagos islands. For a correct application of the law, it is important to have a spatial measure spatial calculated comparing price levels of a common basket of goods and services in both territories.

The UN-ECLAC, upon request of the Instituto Nacional de Estadísticas y Censos of Ecuador, has provided technical statistics support in order to obtain a PLI estimation for the Galápagos islands to facilitate calculations and favor a sound application of the law.

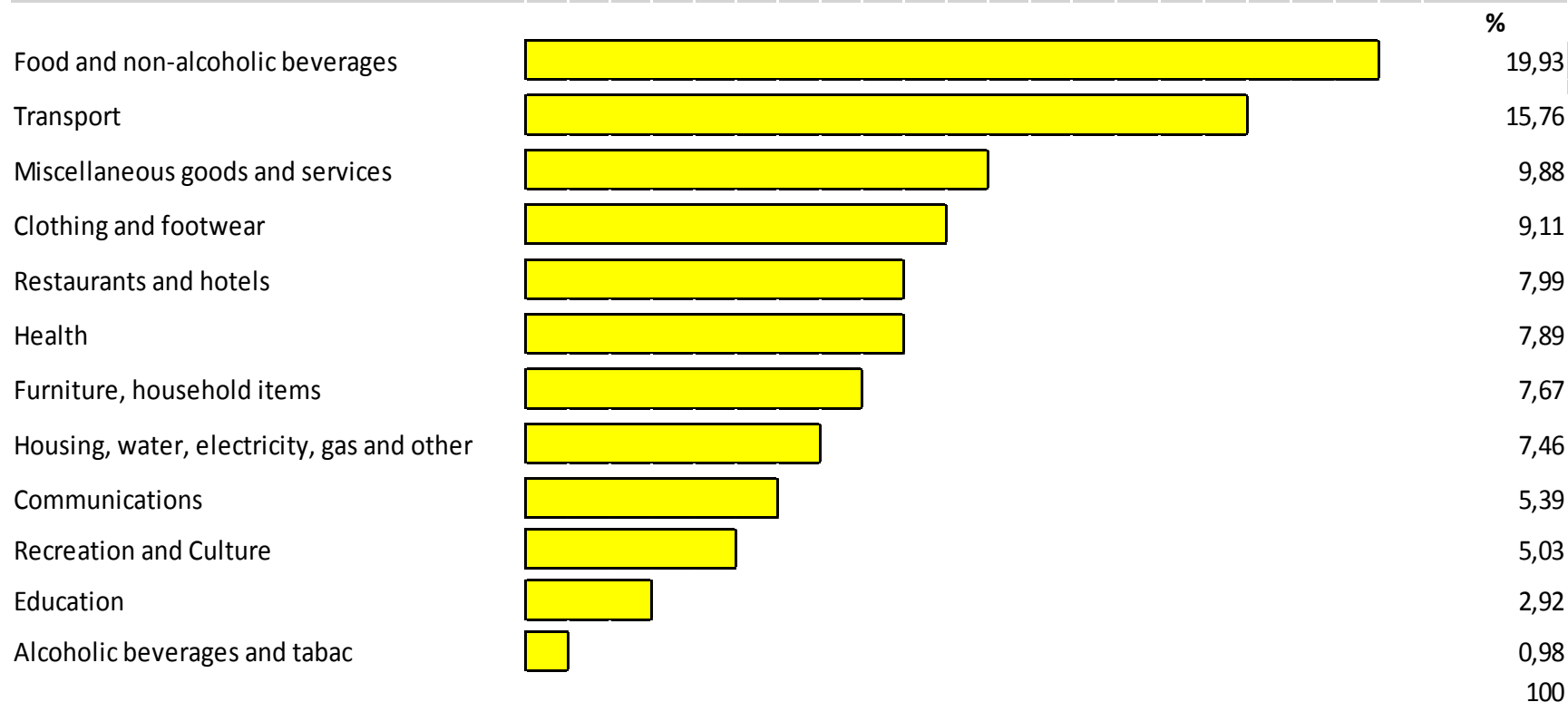
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CONSUMPTION STRUCTURE AND COMPARISON BETWEEN PLI AND CPI

- The Galapagos consumption structure is obtained from the national survey of income and household expenditure for 2011-2012.
- CPI classification of Galapagos and continental Ecuador CPI are disaggregated so that they can be compared.
- Galapagos has a behavior different continent consumption. Many of the goods that are needed in Galapagos must be brought from the mainland by boat or by plane or people travel to the continent for their consumption.
- Therefore it was decided to consider two baskets for Galapagos: one for the measurement of the CPI and another, smaller, for the PLI.

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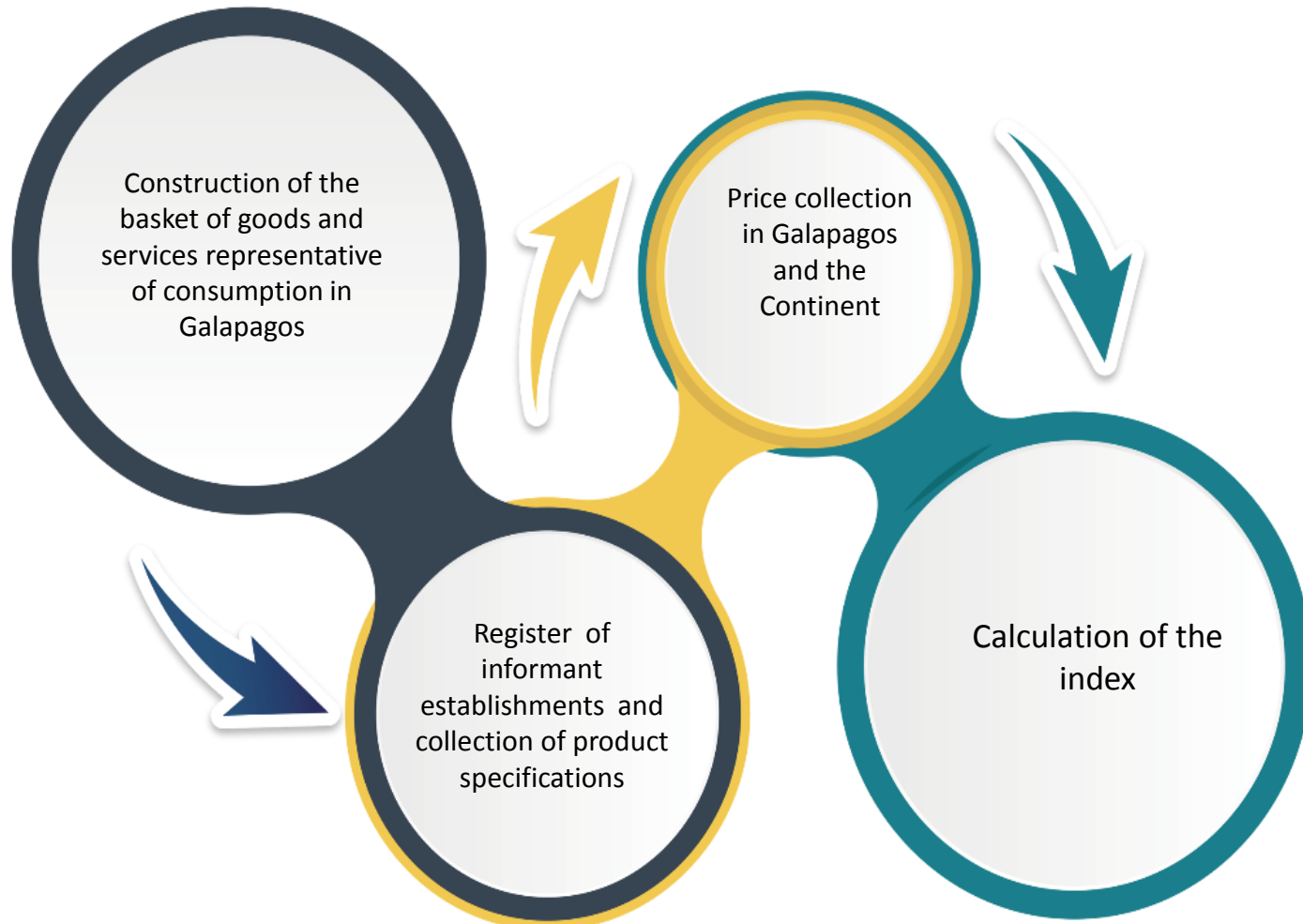
GALAPAGOS CONSUMPTION STRUCTURE



The final list of goods and services is a structure expressed according to the Classification of Individual Consumption by Purpose (COICOP) with 12 "Divisions", 41 "Groups" and 75 "Classes" at the higher level, and a specific classification at the lower level of the "Basic Headings", which are 116 totally, with 228 items.

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Stages in construction PI for Galapagos Islands



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CHARACTERISTICS OF PRICE DATA COLLECTION AND SPECIFICITIES

In most of the cases prices data are collected by direct consultation through mobile data. In those cases where the units are more heterogeneous, purchases are made.

The outlets are classified by type: large establishments; medium and small shops; markets; peddlers; specialized stores; individualized service establishments; establishments or regulated utilities; and other sources without establishment in order to diversify and optimize capture prices.

Given the different patterns of price formation in each of the islands where the prices of goods and services are observed, average prices are calculated as a geometric mean.

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CALCULATING

The first spatial index is calculated for the period October 2015 - March 2016. A common basket of aggregates of representative goods and services is established according to expenditure made by households both in the continent and Galapagos.

The SCPI is calculated according the methodology of PPPs, which use the Laspeyres, Paasche, Fisher and Elteto Koves-Szulc (EKS) formulas to establish the relationship in the price level between Galapagos and the Continent, as an index that compares the level of prices of these geographical areas based on a common basket for a given period.

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SPECIAL TREATMENTS

Some goods and services deserve a special treatment for obtaining prices.

1. Parametric estimates for items whose average price requires a particular calculation process in order to better reflect the reality of households in the islands in contrast to the Continent. Thus, specific treatments were designed in the following areas: health, education, transport.

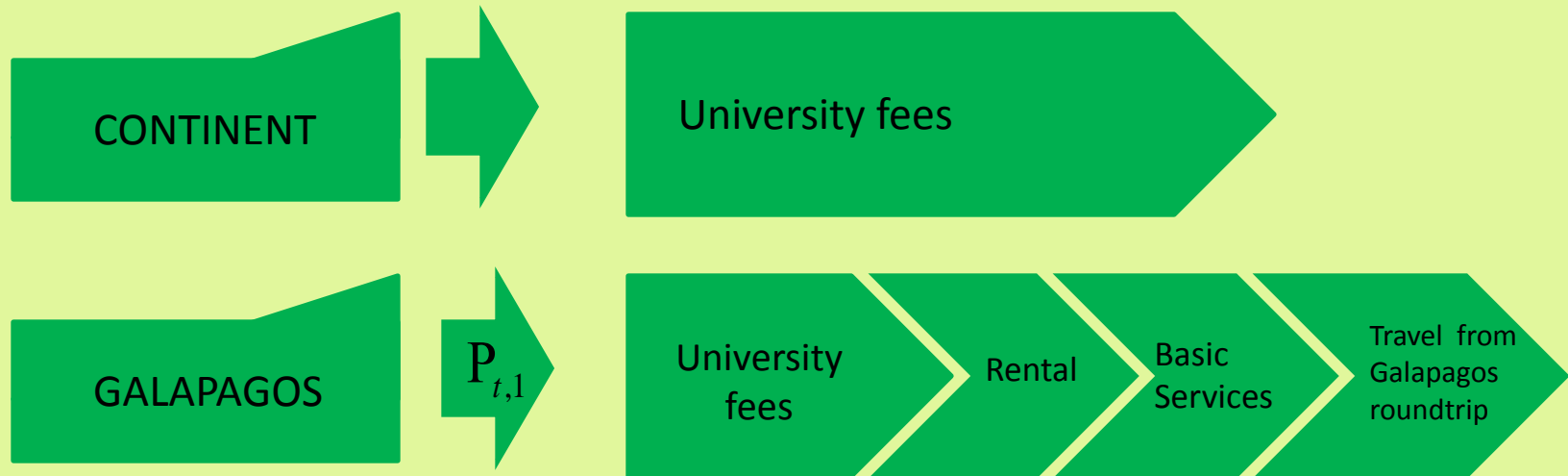
2. Goods for which the average prices of Galapagos is compared not with the national average price of the Continent, but with the average price of the coastal region (for example, Bermuda shorts, school uniforms etc.).

3. Stratum brand and establishment for items in which it is not possible to achieve comparability in the brand attribute, due to the limited availability of varieties of some items.

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SPECIAL TREATMENTS

Parametric estimates prices, examples: UNIVERSITY EDUCATION



Finally, 95 percent of student must travel to that mainland for college. The average price for Galapagos is defined as:

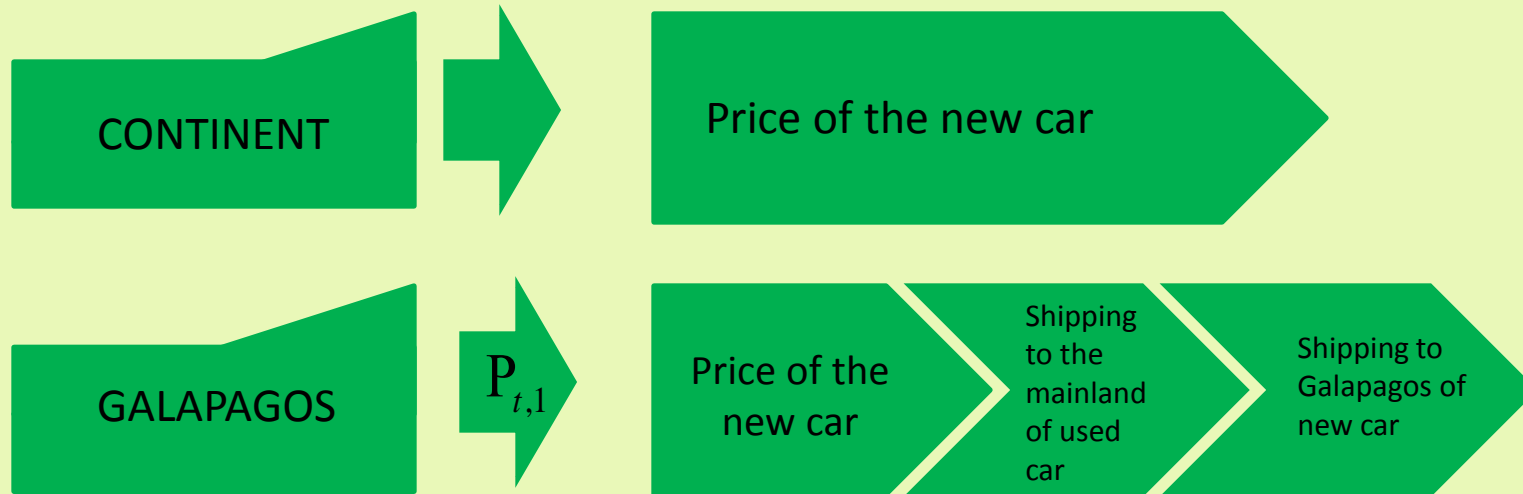
$$P_{t,G} = P_{t,1} * 0,95 + P_{t,SVC} * 0,05$$

SVC: San Cristobal, where there is a university center.

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SPECIAL TREATMENTS

Parametric estimates prices, examples: NEW CAR



Shipping cost include freight and insurance

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CONCLUSIONS

The procedure applied will finally lead to results that will allow the calculation of an adjustment factor for both public and private salaries in the islands, for a more robust and sound calculation of remunerations.

By defining both the CPI and the Galapagos PLI - using the same vector of consumption in the first three levels of aggregation – one can synchronize the processes of price collection and data validation. The only differences are the special treatments.

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CONCLUSIONS

A line of future action is the analysis of the most appropriate information to take into account the differences between the three islands: their size and economic importance, the geographic location, the distance to the mainland, products traded which pass first through another island before its final destination.

The results might be applied to other governance variables managed by policy-makers: for example, the budget allocated to the province of Galapagos with respect to the continent, in terms of government current expenditure and/or gross fixed capital formation.

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