Glossary

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Accounting period	The period to which the estimates of GDP refer. Usually a calendar year or a quarter. For international price and volume comparisons of GDP the accounting period is generally a calendar year. See also *reference year*.
Actual collective consumption	The final consumption expenditure of general government on collective services. A measure of the services that general government provides to the community as a whole and which households consume collectively. Also referred to as *collective consumption expenditure*. See as well *collective services*.
AIC	*Actual individual consumption*. The total value of the individual consumption expenditures of households, NPISHs and general government. A measure of the individual goods and services that households actually consume as opposed to what they actually purchase. See also *individual services*.
Additivity	The values of the national accounts aggregates of countries participating in a comparison are equal to the sum of the values of their components when both aggregates and components are valued at current national price levels. Additivity requires this identity to be preserved when the values of the aggregates and their components are valued at international price levels. An aggregation method is additive if, for each country being compared, it provides real values for aggregates that are equal to sum of the real values of their constituent basic headings. An additive aggregation method provides volumes that satisfy the average test for volumes but are subject to the Gerschenkron effect. Also referred to as *matrix consistency*.
Aggregate	A set of transactions relating to a specified flow of goods and services in a given accounting period, such as the total purchases made by resident households on consumer goods and services or the total expenditure by government on collective services or the total value of gross fixed capital formation. The term is also used to mean the value of the specified set of transactions.
Aggregation	The computing of PPPs above the basic heading level. The process of weighting and averaging basic heading PPPs to obtain PPPs for each level of aggregation up to and including GDP.
Aggregation levels	The hierarchy of levels that make up the expenditure classification: basic headings, expenditure classes, expenditure groups, expenditure categories, main aggregates and GDP.
Analytical categories	GDP, the main aggregates, the expenditure categories, the expenditure groups and expenditure classes for which the results of a comparison are published.
Asterisk (*)	The indicator used in Eurostat and OECD comparisons to identify a representative product. See also *representativity indicators*.

Asterisk product	A representative product so called because, when reporting prices, countries participating in Eurostat and OECD comparisons assign asterisks (*) to identify which of the products they have priced are representative. See also *representativity indicators*.
Average test for PPPs	A test that requires the PPP for an aggregate to lie between the smallest and the largest of its component PPPs.
Average test for volumes	A test that requires the volume index for an aggregate to lie between the smallest and the largest of its component volume indices.
Balance of exports and imports	The f.o.b. value of exports of goods and services less the f.o.b. value of imports of goods and services. If no distinction between goods and services is required, it may be defined as the f.o.b. value of exports of goods and services less the c.i.f. value of imports of goods and services.
Base-country invariance	The property whereby the relativities between the PPPs, the price level indices and the volume indices of countries are not affected by either the choice of national currency as numéraire or the choice of reference country.
Basic heading	*The lowest level of aggregation of items in the GDP breakdown for which parities are calculated*. Article 3(e) PPP Regulation. This level of aggregation is generally determined by the lowest level of final expenditure for which explicit expenditure weights can be estimated. Hence, while in principle a basic heading would consist of a group of similar well-defined goods or services, in practice it can cover a broader range of products than is theoretically desirable. Basic headings are the building blocks of a comparison. It is at the level of the basic heading that expenditures are defined, products selected, prices collected, prices edited and PPPs first calculated and averaged.
Basic price	The amount received by the producer from the purchaser for a unit of good or service produced as output. It includes subsidies on products and other taxes on production. It excludes taxes on products, other subsidies on production, supplier's retail and wholesale margins and separately invoiced transport and insurance charges. Basic prices are the prices most relevant for decision-making by suppliers (producers).
Basket	A term often used for the common list of well-defined goods and services from which countries participating in a comparison make a selection of products to price for the purpose of compiling PPPs. Also referred to as *product list* and *item list*.
Bias	A systematic error in a PPP or volume index. Bias can arise for a number of reasons including failure to respect either representativity, comparability or consistency, the price collection and measurement procedures followed, and the calculation and aggregation formula employed.

Bilateral comparison	Also referred to as a *binary comparison*. See *direct binary comparison*.
Bilateral PPP	Also referred to as a *binary PPP*. See *direct binary PPP*.
Bill of quantities	The product specification that details the operations required to build a construction project. It covers the costs of inputs (labour, materials and plant), subcontracting, preliminaries and overheads. It also covers contractor's profit or loss, architect's and engineer's fees and non-deductible taxes. A bill of quantities is structured to provide a weighted price for each component specified which, when summed across components, provide the purchasers' price for the construction project described.
Binary comparison	Also referred to as a *bilateral comparison*. See *direct binary comparison*.
Binary PPP	Also referred to as a *bilateral PPP*. See *direct binary PPP*.
Brand and model specification	See *product specification*.
Brandless	The term in a product specification that indicates that the good specified is without a brand label or with a brand label that is meaningless to consumers. In other words, there is no brand value attached to the good.
Brand value	The importance that consumers attach to a brand name. Consumers often perceive products with certain brand names as preferable to similar products sold under other brand names. This is usually because some brands are considered to be of superior quality to others. Alternatively, it may have nothing to do with quality and is due to an image of uniqueness or desirability fostered by publicity, fashion or both. Whatever the reason, if consumers are prepared to pay more for a particular brand name than for another, this gives the brand name a brand value. A brand name with a brand value is a price determining characteristic and as such should be included in the product specification.
Bridge country	A country that provides the link or bridge between two or more separate comparisons involving different groups of countries. The bridge country participates in all comparisons and by doing so enables the countries in one comparison to be compared with the countries in the other comparisons and vice versa.
Change in inventories	The acquisition, less disposals, of stocks of raw materials, semi-finished goods and finished goods that are held by producer units prior to their being further processed or sold or otherwise used. Inventories also cover all raw materials and goods stored by government as strategic reserves. Semi-finished goods include work-in-progress - that is, goods and services that are only partially completed and whose production process will be continued by the same producer in a period following the accounting period. Work-in-progress is particularly important for production processes with long gestation periods, such as the construction of large-scale civil engineering works, the manufacture of aeroplanes and ships, and reforestation. Also covered by work-in-

progress is the natural growth prior to harvest of agricultural crops and the natural growth in livestock raised for slaughter.

Characteristicity	A country's PPPs in a multilateral comparison are influenced by the data of all countries participating in the comparison. Characteristicity requires that the country's multilateral PPPs should reflect the essential features of the structure of its input data. Characteristicity in multilateral methods, such as the EKS, that are based on the averaging of the binary PPPs is the property that the resulting multilateral PPPs differ as little as possible from the original binary PPPs. Characteristicity in multilateral methods, such as the CPD or GK, that are based on average international prices is the property that the structure of the average international prices is close as possible to the price structure of the country. The extent to which characteristicity can be obtained depends on the degree of homogeneity among the price structures of the group of countries being compared.
Characteristics	The physical and economic attributes of a product that serve to identify it and enable it to be located under some heading of a product classification. The technical parameters and price determining properties of a product listed in a product specification.
C.i.f. price	*Cost, insurance and freight price*. The price of a good delivered at the customs frontier of the importing country or the price of a service delivered to a resident. It includes any insurance and freight charges incurred to that point. It excludes any import duties or other taxes on imports and trade and transport margins within the importing country.
Circularity	See *transitivity*.
COFOG	*Classification of the functions of government*. COFOG allows a range of transactions by general government - including outlays on final consumption expenditure, intermediate consumption, gross fixed capital formation and capital and current transfers – to be classified by function or purpose. A major use of COFOG is to identify which final consumption expenditures of general government benefit households individually and which benefit households collectively.
COICOP	*Classification of individual consumption according to purpose*. COICOP classifies the individual consumption expenditures of three institutional sectors - households, NPISHs and general government – by the ends that they wish to achieve through these expenditures. Individual consumption expenditures are those which are made for the benefit of individual households. All final consumption expenditures by households and NPISHs are defined as individual, but only the final consumption expenditures by general government on individual services are treated as individual.
Collective consumption expenditure	See *actual collective consumption*.
Collective services	Services provided by general government that benefit the community as a whole. Such services include general public services, defence, public order and safety, economic affairs, environment protection, and housing

and community amenities. They also include the overall policy-making, planning, budgetary, co-ordinating responsibilities of government ministries overseeing individual services and government research and development for individual services. These activities cannot be identified with specific individual households and are considered to benefit households collectively.

Commensurability	The property that requires the results of a comparison to be invariant to changes in units of measurement for prices and quantities.
Commodity	See *product*.
Comparative price level index	See *PLI* or *price level index*.
Comparability	The requirement that countries price products that are identical or, if not identical, equivalent. Products are said to be comparable if they have identical or equivalent physical and economic characteristics – that is, if they have the same or similar technical parameters and price determining properties. In this context, equivalence or similarity between products is defined as meeting the same needs with equal efficiency so that purchasers are indifferent between them and are not prepared to pay more for one than for the other. The pricing of comparable products ensures that the differences in prices between countries for a product reflect pure price differences and are not affected by differences in quality. If the requirement is not respected, differences in quality will be mistaken for price differences leading to an underestimation or overestimation of price levels and a corresponding overestimation and underestimation of volume levels.
Comparison	One of two terms used in the manual as a contraction of *international price and volume comparison of GDP*. The other term is *international comparison*.
Comparison resistant	A term first used to describe non-market services which are difficult to compare across countries because: they have no economically-significant prices with which to value outputs, their units of output cannot be otherwise defined and measured, the institutional arrangements for their provision and the conditions of payment differ from country to country, and their quality varies between countries but the differences cannot be identified and quantified. Increasingly, the term is being used to describe construction and market services such as telecommunications whose complexity, variation and country specificity make it difficult for them to be price comparably across countries.
Compensation of employees	All payments in cash and in kind made by employers to employees in return for work done by them during the accounting period. These payments comprise: gross wages and salaries in cash and in kind, employers' actual social contributions, and imputed social contributions.
Component	A subset of goods and/or services that make up some defined aggregate.

Consistency	The requirement that the prices collected by countries for an international price and volume comparison of GDP are consistent with the prices underlying their estimates of the expenditure components of GDP. In most cases this means that they should be national annual purchasers' prices. As the basis of a comparison is the identity *expenditure = price x volume* and volumes are obtained by dividing expenditures by prices, using prices that do not correspond to those used to derive the expenditures will result in the volumes being either underestimated or overestimated.
Consumption of fixed capital	The reduction in the value of the fixed assets used in production during the accounting period resulting from physical deterioration, normal obsolescence or normal accidental damage.
COPNI	*Classification of the purposes of non-profit institutions serving households*. COPNI allows outlays by NPISHs, including outlays on final consumption expenditure, to be classified by function or purpose. By convention, all final consumption expenditures of NPISHs are treated as individual consumption. A major use of COPNI is to ensure that the individual consumption expenditures of NPISHs are classified consistently with those of households and general government.
CPA	*The standard classification of products by activity within the European Economic Community*. CPA classifies products by their physical characteristics as goods or by their intrinsic nature as services and by originating activity. Originating activities are those defined by NACE.
CPD method	*Country-product-dummy method*. The multilateral method used by the ICP to obtain transitive PPPs at the basic heading level through regression analysis. It treats the calculation of PPPs as a matter of statistical inference, an estimation problem rather than an index number problem. The underlying hypothesis is that, apart from random disturbance, the PPPs for individual products within a basic heading are all constant between any given pair of countries. In other words, it is assumed that the pattern of relative prices of the different products within a given basic heading is the same in all countries. It is also assumed that each country has its own overall price level for the basic heading and it is that which fixes the levels of absolute prices of the products in the basic heading for the country. By treating the prices observed in the countries for the basic heading as random samples, the PPPs between each pair of countries and the common pattern of relative prices can be estimated using classical least square methods. The method allows sampling errors to be estimated for the PPPs. See also *CPRD method* and *weighted CPD method*.
CPI	*Consumer price index*. A monthly or quarterly price index compiled and published by an official statistical agency that measures the changes in the prices of consumption goods and services acquired or used by households. Its exact definition may vary from country to country. In Eurostat and OECD comparisons, CPI sub-indices are used as *temporal adjustment factors* to adjust the average survey prices collected for consumer products to annual average prices. They are also used in to extrapolate basic heading PPPs for a survey year to non-survey years as required by the *rolling survey approach*.

CPRD method	*Country-product-representativity-dummy method*. A variant of the CPD method which has an additional dummy variable to denote whether or not the product is representative. The assumption is that the ratio of price levels for representative and non-representative products is the same for all products within a basic heading. In theory the ratio should be less than one because unrepresentative products are expected to be more expensive than representative products.
Core product	See *overlap product*.
Deductible VAT	The value added tax payable on purchases of goods and services intended for intermediate consumption, gross fixed capital formation or for resale which producers are permitted to deduct from their own VAT liability to the government in respect of VAT invoiced to their customers. See also *VAT* and *non-deductible VAT*.
Deflation	The division of the current value of an aggregate by a price index - described as a *deflator* - in order to value its volumes at the prices of the price reference-period.
Direct binary comparison	A price or volume comparison between two countries that draws upon data only for those two countries. See also *indirect binary comparison*.
Direct binary PPP	A PPP between two countries calculated using only the prices and weights for those two countries. See also *indirect binary comparison.*
Direct price comparison	A price comparison between two or more countries that is made by comparing the prices for a representative sample of comparable products. PPPs are generally derived from direct price comparisons. Also referred to as the *price approach*.
Direct volume comparison	A volume comparison between two or more countries that is made by comparing the volumes of a representative sample of comparable products. Volume comparisons are not usually made directly, but indirectly as described under *indirect volume comparison*. Also referred to as the *quantity approach*.
Discount	A deduction from the list or offer price of a good or a service that is available to specific customers under specific conditions. Examples include cash discounts, prompt payment discounts, quantity discounts, trade discounts and advertising discounts.
Durable good	A good that can be used repeatedly or continuously over a period of considerably more than one year and has a substantially higher purchasers' price than semi-durable goods and non-durable goods. See also *semi-durable good* and *non-durable good*.
Economically significant price	A price that has a significant influence on the amounts producers are willing to supply and on the amounts purchasers wish to buy. This is the basic price for producers and the purchasers' price for purchasers.

Economic territory

The geographical territory of a country plus any territorial enclaves in the rest of the world. By convention, it includes embassies, military bases and ships and aircraft abroad. The economic territory does not include extra-territorial enclaves – that is, the parts of the country's own geographical territory used by general government agencies of other countries or by international organisations under international treaties or agreements between states.

Economic welfare

See *material well-being.* Also referred to as *economic well-being.*

ECP

European comparison programme. The ICP regional programme for Europe that was carried out under the auspices of the United Nations Economic Commission for Europe. It was organised by Eurostat, the OECD, Statistics Austria, the Interstate Statistical Committee of the Commonwealth of Independent States and the State Committee of the Russian Federation on Statistics. Although the ECP formally ceased to exist after 1996, the term is still in use as shorthand for the Eurostat PPP Programme.

Editing

The first step of validation: scrutinizing data reported for errors. The process of checking survey prices for non-sampling errors by identifying those prices that have extreme values – that is, prices whose value is determined to be either too high or too low vis-à-vis the average according to given criteria. The price may score a value for a given test that exceeds a pre-determined critical value or its value may fall outside some pre-specified range of acceptable values. Both are standard ways of detecting errors in survey data and both are employed by Eurostat and the OECD. Prices with extreme values are not necessarily wrong. But the fact that their values are considered extreme suggests that they could be wrong. They are possible errors and, as such, they need to be investigated to establish whether or not they are actual errors.

EKS method

Èltetö-Köves-Szulc method. The method used by Eurostat and the OECD to calculate PPPs for basic headings and to aggregate basic heading PPPs to obtain PPPs for each level of aggregation up to and including GDP. Strictly speaking, the EKS is a procedure whereby any set of intransitive binary index numbers are made transitive while respecting characteristicity. The procedure is independent of the method used to calculate the intransitive binary indices. But in the manual, EKS covers both the way the intransitive binary PPPs are calculated and the procedure to make them transitive and multilateral.

Basically, the method used to obtain the intransitive binary PPPs for a basic heading or aggregate involves calculating first a matrix of Laspeyres type PPPs, then a matrix of Paasche type PPPs and finally, by taking the geometric mean of the two, a matrix of Fisher type PPPs. The Fisher type PPPs are made transitive and multilateral by applying the EKS procedure which involves replacing the Fisher type PPP between each pair of countries by the geometric mean of itself squared and all the corresponding indirect Fisher type PPPs between the pair obtained using the other countries as bridges. The resulting EKS PPPs provide real expenditures that are not subject to the Gerschenkron effect but nor are they additive. Within the context of Eurostat and OECD comparisons, EKS results are considered to be better suited to comparisons across countries of the price and volume levels of individual aggregates. EKS results are the official results of Eurostat and

OECD comparisons.

See also *Laspeyres type PPP* and *Paasche type PPP* because their formulation depends on whether they are being used to calculate basic heading PPPs or to aggregate basic heading PPPs.

Note that there are two versions of the EKS at the basic heading level: one that takes account of the representativity of the products priced and one that does not. Throughout the manual, unless stated otherwise, EKS refers to the version that takes the representativity of products into consideration. See also *GEKS method*.

EKS-S method	*Èltetö-Köves-Szulc-Sergeev method.* A variant of the EKS method for calculating PPPs for basic headings that, under certain circumstances, is better able to handle the asymmetry in the number of representative products priced by countries. With the EKS method, the Fisher type index is calculated as the geometric mean between two PPPs: the PPPs based on products representative in the first country and the PPPs based on products representative in the second country. Products representative in both countries are used for both PPPs. With the EKS-S method, the Fisher type index between two countries is calculated as the geometric mean of three PPPs: the PPPs based on products representative in both countries, the PPPs based on products representative in the first country but not the second, and the PPPs based on products representative in the second country but not the first. Symmetry is obtained by giving equal weight in the calculation to the two PPPs that are based on products representative of only one country.
Employers' actual social contributions	Payments actually made by employers to social security funds, insurance enterprises or autonomous pension funds for the benefit of their employees.
Equilibrium exchange rates	The underlying rates of exchange to which actual exchange rates are assumed to converge in the long term.
Equi-representativity	*The property required of the composition of the item list for a basic heading (such that) each Member State (or participating country) is able to price that number of representative items which is commensurate with the heterogeneity of products and price levels covered by the basic heading and its expenditure on the basic heading.* Article 3(m) PPP Regulation. The object is to obtain PPPs that are both unbiased and reliable. See *representativity*.
Error	The difference between the observed value of a PPP or volume index and its correct value. Errors maybe random or systematic. Random errors are generally referred to as *errors*. Systematic errors are called *biases*.

ESA	*European system of accounts*. A version of the SNA appropriate to the circumstances and needs of the European Union. The SNA provides guidelines and makes recommendations for global implementation. The ESA specifies how these guidelines and recommendations should be interpreted and implemented by EU Member States. It has legal status in the European Union. See also *SNA*.
Expenditure category	The aggregation level between main aggregates and expenditure groups.
Expenditure class	The aggregation level between expenditure groups and basic headings.
Expenditure group	The aggregation level between expenditure categories and expenditure classes.
Expenditure weights	*The shares of expenditure components (basic headings) in current-price GDP.* Article 3(d) PPP Regulation.
Factor reversal test	A test that requires the product of a price index and a quantity index, when both indexes are of the same type, to be equal to the value index. For example, Fisher price and quantity indexes satisfy this test. Laspeyres and Paasche indexes do not.
Final consumption expenditure	The expenditure on goods and services consumed by individual households or the community to satisfy their individual or collective needs or wants.
Final consumption expenditure of government	See *government final consumption expenditure*.
Final consumption expenditure of households	See *individual consumption expenditure by households*.
Final consumption expenditure of NPISHs	See *individual consumption expenditure by NPISHs*.
Fisher type PPP	The PPP for a basic heading or an aggregate between two countries that is defined as the geometric mean of the Laspeyres type PPP and the Paasche type PPP for the basic heading or the aggregate. See also *Laspeyres type PPP* and *Paasche type PPP* because their formulation depends on whether they are being used to calculate basic heading PPPs or to aggregate basic heading PPPs.
FISIM	*Financial intermediation services indirectly measured*. An indirect measure of the value of the financial intermediation services that financial institutions provide clients but for which they do not charge explicitly.

Fixity	*When results are calculated originally for a group of Member States (countries) and then later the results are calculated for a wider group of Member States (countries), the PPPs between the original group of Member States (countries) shall nevertheless be preserved*. Article 4(q) PPP Regulation.

The convention whereby the relativities between a group of countries that were established in a comparison covering just that group of countries remain unchanged, or fixed, when the countries of the group are included in comparisons with a wider group of countries. For example, the relativities for EU Member States established by Eurostat remain unchanged when the EU Member States are included in a comparison covering OECD Member Countries. If fixity was not observed, there would be two sets of relativities for EU Member States. The two set would not necessarily be in agreement because the relatives and ranking of countries can change as the composition of the group of countries being compared changes. Fixity ensures that Eurostat, the OECD and participating countries have only one set of results to explain to users.

F.o.b. price	*Free on board price*. The price of a good delivered at the customs frontier of the exporting country. It includes the freight and insurance charges incurred to that point and any exports duties or other taxes on exports levied by the exporting country.

GDP	*Gross domestic product*. GDP can be estimated using three alternative approaches which, in theory, yield the same result, namely: the production approach – which sums all the value added generated by the country's resident institutional sectors during the accounting period; the expenditure approach – which sums all the final expenditures incurred by the country's resident institutional sectors during the accounting period; and the income approach – which sums all the factor incomes paid by the country's resident institutional sectors engaged in domestic production during the accounting period.

Unless stated otherwise, the manual refers to GDP estimated by the expenditure approach and is defined as the total value of the final consumption expenditures of households, NPISHs and general government plus gross capital formation plus the balance of exports and imports.

GEKS method	*Gini-Èltetö-Köves-Szulc method*. The EKS method is named after the three individuals who independently advocated its use in the mid-1960s. The formula, however, was actually proposed by Gini some thirty years earlier in a paper on circularity and in recent literature the method is called the GEKS. The EKS or GEKS method as originally proposed did not take into account the representativity of the products priced when calculating PPPs at the basic heading level. This refinement was introduced later by Eurostat in its 1980 comparison. As a consequence, there are two versions of the method: the classic version without representativity and the Eurostat-OECD version with representativity. In current literature, the classic version is referred to as EKS or GEKS and the Eurostat-OECD version as EKS* or GEKS*. (An asterisk is the representativity indicator used by Eurostat and the OECD. In debate it is pronounced *star*. Hence *EKS star* or *GEKS star*.)

Eurostat and the OECD have always referred to EKS* or GEKS* as EKS. EKS is used in the PPP Regulation. It is also used throughout the reports and papers that Eurostat and the OECD have prepared relating

to their joint PPP Programme. To preserve clarity and continuity, Eurostat and the OECD have not adopted the new terminology and continue to employ EKS instead of EKS* or GKS* when discussing the calculation of PPPs at the basic heading level.

Note that EKS can also refer to the aggregation of basic heading PPPs. See *EKS method*.

General government
The institutional sector that consists of central, regional, state and local government units together with social security funds imposed and controlled by those units. It includes non-profit institutions engaged in non-market production that are controlled and mainly financed by government units or social security funds. Also referred to as *government*.

Generic specification
See *product specification*.

Gerardi method
The average price aggregation method used in the 1975 Eurostat comparison of EU Member States. International prices are calculated as the geometric mean of the national prices of participating countries expressed in national currencies. When a geometric mean is used, the pattern of relative average prices is the same whether or not the national prices are converted into a common currency. It avoids the problem of calculating PPPs with which to convert national prices to a common currency before averaging them. Gerardi real expenditures are additive and all countries, both small and large, are treated symmetrically.

Gerschenkron effect
Applicable only to aggregation methods that use either a reference price structure, whereby each country's quantities are valued by a uniform set of prices to obtain volumes, or a reference volume structure, whereby each country's prices are used to value a uniform set of quantities to obtain PPPs. For methods employing a reference price structure, a country's share of total GDP - that is, the total for the group of countries being compared - will rise as the reference price structure becomes less characteristic of its own price structure. For methods employing a reference volume structure, a country's share of total GDP will fall as the reference volume structure becomes less characteristic of its own volume structure. The Gerschenkron effect arises because of the negative correlation between prices and volumes.

GFCE
Government final consumption expenditure. The actual and imputed final consumption expenditure incurred by general government on individual goods and services and collective services. The total value of individual consumption expenditure and collective consumption expenditure by general government. Also referred to as *final consumption expenditure of government*.

GFCF
Gross fixed capital formation. The total value of acquisitions less disposals of fixed assets by resident institutional units during the accounting period plus the additions to the value of non-produced assets realised by the productive activity of resident institutional units.

GK method
Geary-Khamis method. An average price aggregation method first used by the ICP to compute PPPs and real expenditures above the basic heading. It entails valuing a matrix of quantities using a vector of

international prices. The vector is obtained by averaging national prices across participating countries after they have been converted to a common currency with PPPs and weighted by country quantity shares. The country PPPs are obtained by averaging the ratios of national and international prices weighted by country expenditure shares. The international prices and the PPPs are defined by a system of interrelated linear equations that require solving simultaneously. The GK method produces PPPs that are transitive and real expenditures that are additive. It has a number of disadvantages. One is that a change in the composition of the group can change significantly the international prices as well as the relationships between countries. Another is that the real expenditures are subject to the Gerschenkron effect which can be large. Within the context of Eurostat and OECD comparisons, GK results are considered to be better suited to the analysis of price and volume structures across countries. The OECD publishes a selection of GK results chosen specifically for such structural analysis.

Goods	Physical objects for which a demand exists, over which ownership rights can be established and whose ownership can be transferred from one institutional unit to another by engaging in transactions on the market. They are in demand because they may be used to satisfy the needs or wants of households or the community or used to produce other goods or services.
Gross capital formation	The total value of gross fixed capital formation, changes in inventories and acquisitions less disposals of valuables.
Gross operating surplus	The surplus or deficit accruing from production before taking any account of: (a) consumption of fixed capital; (b) any interest, rent or similar charges payable on financial or tangible non-produced assets borrowed or rented by the enterprise; or (c) any interest, rent or similar charges receivable on financial or tangible non-produced assets owned by the enterprise.
Gross value added (at basic prices)	The value of output at basic prices less the value of intermediate consumption at purchasers' prices. It is a measure of the contribution to GDP made by an individual producer, industry or sector.
Gross wages and salaries	The wages and salaries in cash and in kind paid by enterprises to employees before the deduction of taxes and social contributions payable by employees.
HICP	*Harmonised index of consumer prices*. A price index that measures the changes in the prices of consumer goods and services that households acquire by means of monetary transactions - that is, the changes in the prices that households pay for the goods and services they themselves purchase. HICPs are compiled monthly by the national statistical agencies of EU Member States, EU candidate counties and countries of the European Economic Area. Compilation is according to the harmonised statistical methods and single set of definitions established by Commission regulations. National HICPs are combined by Eurostat to provide HICPs for the Euro Area, the European Union and the European Economic Area. In Eurostat and OECD comparisons, sub-indices of national HICPs are used as *temporal adjustment factors* to adjust the average survey prices collected for consumer products to annual average prices. They are also used in to extrapolate basic

heading PPPs for a survey year to non-survey years as required by the *rolling survey approach*.

Household	A small group of persons who share the same living accommodation, who pool some, or all, of their income and wealth and who consume certain types of goods and services collectively, mainly food and housing. A household can consist of only one person.
Household final consumption expenditure	See *individual consumption expenditure by households*.
ICP	*International comparison project* prior to 1989 and *International comparison programme* since 1989. It started as a research project in the 1960s with the ultimate goal of establishing a regular programme of worldwide PPP comparisons of GDP. Comparisons were organised for 1970, 1973, 1975, 1980, 1985, and 1993. They covered 10, 16, 34, 60, 64 and 83 countries respectively. Responsibility for these comparisons was shared by the United Nations Statistics Division and the University of Pennsylvania. The World Bank is the current global co-ordinator of the ICP. A comparison covering 147 countries was organised for 2005 and a comparison covering around 200 countries is being organised for 2011
Ikle method	An average price aggregation method similar to the GK method. It was used in the 2005 ICP regional comparison for Africa. Like the GK method, it derives a vector of international prices by averaging national prices across participating countries after the prices have been converted to a common currency with PPPs and weighted. The GK method uses quantity shares as weights. The Ikle method uses expenditure shares as weights. In addition, GK international prices are arithmetic means while Ikle international prices are harmonic means. The Ikle method is designed to prevent prices in countries with large expenditures dominating the average prices. Because the sum of expenditure shares in each country is equal to one, the Ikle method can be regarded as being equi-representative of all countries. The Iklé method produces PPPs that are transitive and real expenditures that are additive. Compared to the GK method, the Iklé method minimises the Gerschenkron effect.
Imputed expenditure	Some transactions which it is desirable to include in GDP do not take place in money terms and so cannot be measured directly. Expenditures on these non-monetary transactions are obtained by imputing a value to them. The values to be imputed are defined by national accounting conventions. These vary from case to case and are described in the SNA and the ESA.
Imputed rents	See *owner-occupied housing*.
Imputed social contributions	The imputations that need to be made when employers provide social benefits themselves directly to their employees, former employees or dependents out of their own resources without involving an insurance enterprise or autonomous pension fund, and without creating a special fund or segregated reserve for the purpose.

Indirect binary comparison	A price or volume comparison between two countries made through a third country. For example, in the case of countries A, B and C, the PPP between A and C is obtained by dividing the PPP between A and B by the PPP between C and B as follows: $PPP_{A/C} = PPP_{A/B} / PPP_{C/B}$.
Indirect price comparison	A price comparison between two countries made by dividing the expenditure ratio by the volume ratio. The indirect price comparison between country A and country B for product I is $(P_{IA}Q_{IA} / P_{IB}Q_{IB}) / Q_{IA}/Q_{IB} = P_{IA} / P_{IB}$ where the P's are the prices and the Q's the volumes (quantities) of the product. Price comparisons are usually made directly.
Indirect volume comparison	A volume comparison between two countries made by dividing the expenditure ratio by the price ratio. The indirect volume comparison between country A and country B for product I is $(P_{IA}Q_{IA} / P_{IB}Q_{IB}) / P_{IA}/P_{IB} = Q_{IA} / Q_{IB}$ where the P's are the prices and the Q's the volumes (quantities) of the product. Volume comparisons are usually made indirectly.
Individual consumption expenditure by government	The actual and imputed final consumption expenditure incurred by general government on individual goods and services. Also referred to as *social transfers in kind*.
Individual consumption expenditure by households	The actual and imputed final consumption expenditure incurred by households on individual goods and services. It also includes expenditure on individual goods and services sold at prices that are not economically significant. By definition, all final consumption expenditures of households are for the benefit of individual households and are individual. Also referred to as *final consumption expenditure of households* and *household final consumption expenditure*.
Individual consumption expenditure by NPISHs	The actual and imputed final consumption expenditure incurred by NPISHs on individual goods and services. In practice, most final consumption expenditures of NPISHs are individual in nature and so, for simplicity, all final consumption expenditures of NPISHs are treated by convention as individual. Also referred to as *final consumption expenditure of NPISHs* and *social transfers in kind*.
Individual good or service	A consumption good or service acquired by a household and used to satisfy the needs and wants of members of that household.
Individual services	A term used to describe the services (and goods) provided to individual households by NPISHs and general government. Such services include housing, health, recreation and culture, education and social protection. They do not include the overall policy-making, planning, budgetary, co-ordinating responsibilities of government ministries overseeing individual services. Nor do they include government research and development for individual services. These activities cannot be identified with specific individual households and are considered to benefit households collectively. They are classified under collective services.
Input price approach	The approach used to obtain PPPs for non-market services. Because there are no economically significant prices with which to value the outputs of these services, national accountants follow the convention of

estimating the expenditures on non-market services by summing the costs of the inputs required to produce them. PPPs for non-market services are calculated with input prices as these are the prices that are consistent with the prices underlying the estimated expenditures. In practice, prices (compensation employees) are only collected for labour which is by far the largest and most important input.

Institutional sector	The SNA and the ESA identify five institutional sectors: non-financial corporations, financial corporations, general government, households and NPISHs.
Inter-country validation	The validation that takes place after participating countries have completed their intra-country validation and submitted their survey prices to Eurostat or the OECD. It is an iterative process consisting of several rounds of questions and answers between Eurostat or the OECD and participating countries. It involves editing and verifying the average survey prices reported by participating countries for a basic heading and assessing the reliability of the PPPs they produce for the basic heading. The objective is to establish that the average survey prices are for comparable products, that the products have been accurately priced and that the allocation of representativity indicators is correct. In other words, to ascertain whether countries have interpreted the product specifications the same way and whether their price collectors have priced them without error. The Quaranta editing procedure is employed for this purpose. The procedure entails comparing the average survey prices recalculated in a common currency by the exchange rates as well as by the basic heading PPPs for the same product across countries and analysing across products and across countries the dispersion of the price ratios that the average survey prices generate between countries. Outliers among the average survey prices are detected by identifying the outliers among the corresponding price ratios. Countries verify the outliers found to ascertain whether or the not they are valid observations. If they are not, the country either corrects or suppresses them.
Intra-country validation	The validation that precedes inter-country validation. It is undertaken by participating countries prior to submitting their survey prices to Eurostat or the OECD. Each country edits and verifies its own prices without reference to the price data of other countries. Validation is carried out at the product level. The objective is to establish that price collectors within the country have priced items that match the product specifications and that the prices they have reported are accurate. This entails the country searching for outliers first among the individual prices that have been collected for each product it has chosen to survey and then among the average prices for these products. Subsequently, the country verifies the outliers found to ascertain whether or the not they are valid observations. If they are not, the country either corrects or suppresses them.
Intermediate consumption	The value of the goods and services, other than fixed assets, that are used or consumed as inputs by a process of production.
International comparison	One of two terms used in the manual as a contraction of *international price and volume comparison of GDP*. The other term is *comparison.*

International prices	A term used in association with additive aggregation methods. In the course of expressing the expenditures in a common currency and at a uniform price level, additive aggregation methods value the expenditures at international prices, where an international price is defined as the average of the national prices prevailing in participating countries. The average may be weighted or unweighted, PPP adjusted or unadjusted. It may be an average of prices or an average of price structures. In the GK method, for example, the average is defined as a quantity-weighted arithmetic average of the national prices adjusted by the global PPPs across all countries. Theoretically prices for products should be used to calculate the international prices, but in practice notional prices for basic headings are used instead.
ISCED	*International standard classification of education*. The classification used in the collection, compilation and presentation of national and international education statistics and indicators. It covers all organised and sustained learning activities for infants, children, youth and adults including those with special needs.
ISCO	*International standard classification of occupations*. Classifies occupations according to two main concepts: the kind of work done - that is, the job; and the ability to carry out the tasks and duties of the job - that is, the skill.
Item	*A good or service precisely defined for use in price observation*. Article 3(f) PPP Regulation. A good or service defined by an item specification and included on an item list. Countries select the items they price from among the items included on the item list. Also referred to as *product*.
Item list	See *basket*. Also referred to as *product list*.
Item specification	See *product specification*.
Laspeyres type PPP	A PPP for a basic heading or an aggregate between two countries, country B and country A, where the reference country is country A and the weights are those of country A. At the basic heading level, the PPP is defined as a quasi-weighted geometric average of the price relatives between country B and country A for the products representative of country A. At an aggregate level, the PPP is defined as the weighted arithmetic average of the PPPs between country B and country A for the basic headings covered by the aggregate with the expenditure shares of country A being used as weights.
List price	See *offer price*.
Main aggregates	The level of aggregation immediately below GDP. There are seven main aggregates of which the most important are individual consumption expenditure by households, individual consumption expenditure by government, collective consumption expenditure by government and gross fixed capital formation.

Market price	The amount of money a willing buyer pays to acquire a good or service from a willing seller. The actual price for a transaction agreed on by the transactors. The net price inclusive of all discounts, surcharges and rebates applied to the transaction. From the seller's point of view the market price is the basic price; from the buyer's point of view the market price is the purchasers' price. Also referred to as *transaction price*.
Matched products or models method	The pricing of identical products or models across countries to ensure that the price differences observed are not affected by differences in quality. The object is to price to constant quality. Price differences for perfectly matched products are pure price differences. See also *specification pricing*.
Material well-being	The volume of goods and services that households consume to satisfy their individual needs. Also referred to as *economic welfare* or *economic well-being*.
Matrix consistency	See *additivity*.
Mistake	*A use of incorrect basic information or inappropriate application of the calculation procedure*. Article 3(o) PPP Regulation.
Multilateral comparison	A price or volume comparison of more than two countries simultaneously that is made with price and expenditure data from all countries covered and which produces consistent relations among all pairs of participating countries - that is, one that satisfies the transitivity requirement among other requirements.
NACE	*Nomenclature générale des activités économiques dans les Communautés européennes.* The acronym for the *General industrial classification of economic activities within the European Communities*. NACE allows enterprises and establishments to be classified according to economic activity based on the class of goods produced or services rendered.
National annual price	A price that has been averaged both over all localities of a country so as to take account of regional variations in prices and over the whole of the reference year so as to allow for seasonal variations in prices as well as general inflation and changes in price structures.
National expenditures	GDP expenditures that are valued at national price levels and expressed in national currencies. Also referred to as *nominal expenditures in national currencies*.
Net purchases abroad	Purchases by resident households outside the economic territory of the country less purchases by non-residential households in the economic territory of the country.
Nominal expenditures in national currencies	See *national expenditures*.

Nominal expenditures	National expenditures that have been converted to a common currency with exchange rates. Expenditures so converted remain valued at national price levels and reflect both volume and price differences between countries. Also referred to as *nominal values*.
Nominal values	See *nominal expenditures.*
Non-deductible VAT	The value added tax payable by purchasers that is not deductible from their own VAT liability, if any. See also *VAT* and *deductible VAT*.
Non-durable good	A good that can only be used once or that has a lifetime of considerably less than one year. See also *semi-durable good* and *durable good*.
Non-market service	A service that is provided to households free or at a price that is not economically significant by NPISHs and/or by general government.
Non-observed economy	Activities that are hidden because they are illegal or because they are legal but carried out clandestinely or because they are undertaken by households for their own use. Also activities that are missed because of deficiencies in the statistical system. Such deficiencies include out-of-date survey registers, surveys having too high reporting thresholds or high rates of non-response, poor survey editing procedures, no surveying of informal activities such as street trading, etc.
Non-profit institutions	Legal or social entities created for the purpose of producing goods and services whose status does not permit them to be a source of income, profit or other financial gain for the units that establish, control or finance them.
NPISH	*Non-profit institution serving households.* Non-profit institutions which are not predominantly financed and controlled by government, whose main resources are voluntary contributions by households and which provide goods or services to households free or at prices that are not economically significant.
Numéraire	A term used for the currency unit selected to be the common currency in which PPPs and real and nominal expenditures are expressed. The numéraire may be an actual currency unit such as the euro and the US dollar or an artificial currency unit such as the PPS and the OECD dollar.
Observation	An individual price, or one of a number of individual prices, collected for an item at an outlet.
OECD dollar	The artificial currency unit in which the PPPs and real expenditures for the OECD are expressed – namely, *US dollars at average OECD price levels*. US dollars at average OECD price levels are US dollars that have the same purchasing power over the whole of the OECD. Their purchasing power is a weighted average of the purchasing power of the national currencies of OECD Member Countries. As such they reflect the average price level in the OECD or, more precisely, the weighted

average of the price levels of OECD Member Countries. OECD dollars are defined by equating the total real expenditure of the OECD on a specific basic heading, aggregation level or analytical category to the total nominal expenditure of the OECD on the same basic heading, aggregation level or analytical category.

Offer prices	The prices that sellers display as the prices at which they are prepared to sell their products. The prices of products as quoted in the seller's price list, catalogue, internet site, advertisements, etc. They are not necessarily transaction prices. Depending on the country and/or the product, they may or may not include delivery and installation costs, VAT and other indirect taxes on products, discounts, surcharges and rebates, invoiced service charges and voluntary gratuities. Also referred to as *list prices*.
Other subsidies on production	See *subsidies on production*.
Other taxes on production	See *taxes on production*.
Outlet	A shop, market, service establishment, internet site, mail order service or other place from where goods and/or services can be purchased and from where the purchasers' or list prices of the products sold can be obtained.
Outlier	A term that is generally used to describe any extreme value in a set of survey data. Can also mean an extreme value that has been verified as being correct.
Overlap product	A product that appears on the product lists of two or more separate groups of countries for the purpose of combining the groups in a single multilateral comparison. The use of overlap products is an alternative to linking groups of countries through bridge countries. Also referred to as a *core product*.
Owner-occupied housing	Dwellings owned by the households that live in them. Owner-occupiers use the dwellings to produce housing services for themselves. The imputed rents of these housing services should be valued at the estimated rent that a tenant pays for a dwelling of the same size and quality in a comparable location with similar neighbourhood amenities. When markets for rented accommodation are virtually non-existent or unrepresentative, the value of imputed rents has to be derived by some other objective procedure such as the *user-cost method*.
Paasche - Laspeyres spread	The ratio of the Paasche type index to the Laspeyres type index in a binary comparison. Usually the Paasche index is lower than the Laspeyres index. In other words, the Paasche – Laspeyres spread should be less than one.
Paasche type PPP	A PPP for a basic heading or an aggregate between two countries, country B and country A, where the reference country is country A and the weights are those of country B. At the basic heading level, the PPP is defined as a quasi-weighted geometric average of the price relatives between country B and country A for the products representative of country B. At an aggregate level, the PPP is defined as the weighted harmonic average of the PPPs between country B and country A for the

basic headings covered by the aggregate with the expenditure shares of country B being used as weights.

Parity	See *PPP*.

Penn effect

The overstatement of the economic size of high-income countries and the understatement of the economic size of low-income countries that results when exchange rate converted GDPs are used to establish the relative sizes of economies. The Penn effect arises because price levels are usually higher in high-income countries than they are in low income countries and exchange rates do not take account of price level differences between countries when used to convert their GDPs to a common currency.

PISA

Programme for International Student Assessment. The programme is managed by the OECD. Tests are administered to 15 year olds in schools and cover three topics: mathematics, reading and science. Typically between 4,500 and 10,000 students sit the tests per country. The tests are held every three years and there have been four assessments to date: 2000 (43 countries), 2003 (41 countries), 2006 (57 countries), and 2009 (65 countries of which 43 participate in the Eurostat–OECD PPP Programme). PISA provides assessments that are corrected for the economic, social and cultural status (ESCS) of students thereby making possible a better evaluation of the quality of the teaching. The quality adjustments made at the primary and secondary levels of education for the Eurostat-OECD output method are based on ESCS corrected PISA scores.

PPP

Purchasing power parity or *parity*. *Spatial deflators and currency converters that eliminate the effects of the differences in price levels between Member States (countries), thus allowing volume comparisons of GDP components and comparisons of price levels*. Article 3(a) PPP Regulation.

PPPs are calculated in three stages: first for individual products, then for groups of products or basic headings and, finally, for groups of basic headings or aggregates. PPPs for individual products are ratios of national prices in national currencies for the same good or service. The PPPs for basic headings are unweighted averages of the PPPs for individual products. The PPPs for aggregates are weighted averages of the PPPs for basic headings. The weights used are the expenditures on the basic headings. PPPs at all stages are price relatives. They show how many units of currency A need to be spent in country A to obtain the same volume of a product or a basic heading or an aggregate that X units of currency B purchases in country B. In the case of a single product, the same volume means identical volume. But in the case of the complex assortment of goods and services that make up an aggregate such as GDP, the same volume does not mean an identical basket of goods and services. The composition of the basket will vary between countries according to their economic, social and cultural differences, but each basket will provide equivalent satisfaction or utility.

PPP Regulation

Regulation (EC) No 1445/2007 of the European Parliament and of the Council of 11 December 2007 establishing common rules for the provision of basic information on Purchasing Power Parities and their calculation and dissemination.

PPP similarity index	See *price similarity index*.
PPS	*Purchasing power standard. The artificial common reference currency unit used in the European Union to express the volume of economic aggregates for the purpose of spatial comparisons in such a way that price level differences between Member States are eliminated.* Article 3(b) PPP Regulation.
	The artificial currency unit in which the PPPs and real expenditures for the European Union are expressed – namely, *euros at average EU price levels.* Euros at average EU price levels are euros that have the same purchasing power over the whole of the European Union. Their purchasing power is a weighted average of the purchasing power of the national currencies of EU Member States. As such they reflect the average price level in the European Union or, more precisely, the weighted average of the price levels of EU Member States. PPS are defined by equating the total real expenditure of the European Union on a specific basic heading, aggregation level or analytical category to the total nominal expenditure of the European Union on the same basic heading, aggregation level or analytical category.
Pre-survey	The preparatory survey carried out by participating countries prior to a price survey. The objective is for each country to investigate its national market to ascertain the availability, comparability and representativity of the products specified in a pre-survey questionnaire. It involves visiting outlets, including those that will be visited during the actual price collection, to obtain information on the products specified, on their replacements and on possible alternatives from sales personnel and through observation. It also involves consulting the internet, trade and consumer magazines, catalogues and brochures, importers and experts. Country responses to the pre-survey questionnaire are used to draw up the product list for the price survey.
Price approach	See *direct price comparison*.
Price error	A price error occurs when price collectors price products that match the product specification but record the price incorrectly or they record the price correctly and error is introduced afterwards in the process of reporting and transmitting the price. Price error can also arise because the quantity priced is recorded wrongly (or error is introduced later during processing). Hence, when the price collected is standardised and adjusted to a reference quantity, it will not be correct.
PLI	*Price level index*. PLIs are the ratios of PPPs to exchange rates. They provide a measure of the differences in price levels between countries by indicating for a given aggregation level or analytical category the number of units of the common currency needed to buy the same volume of the aggregation level or analytical category in each country. At the level of GDP they provide a measure of the differences in the general price levels of countries. Also referred to as *comparative price level index*.
Prices	*The purchaser prices paid by final consumers*. Article 3(c) PPP Regulation.

Price relative	The ratio of the price of an individual product in one country to the price of the same product in some other country. It shows how many units of currency A need to be spent in country A to obtain the same quantity and quality – that is, the same volume - of the product that X units of currency B purchase in country B.
Price similarity index	The similarity of the structure of prices between any pair of countries is measured by the correlation coefficient that is obtained by regressing the internal price structure of one country against the corresponding internal price structure of the other country. Internal price structures can be expressed as a vector of the ratios of product prices to the price of a reference product. In practice, the correlation coefficient is obtained by regressing the basic heading PPPs. The basic heading PPPs are interpreted as notional prices.
Productivity adjustment	An adjustment made to the prices paid by non-market producers for labour, capital and intermediate inputs so that they correspond to a common level of multi-factor productivity. In practice, an adjustment made to the prices (compensation of employees) paid by non-market producers for labour so that they represent the same level of labour productivity. Productivity adjustments are not made in Eurostat and OECD comparisons.
Product	A good or service that is the result of production. Products are exchanged and used for various purposes: as inputs in the production of other goods and services, as final consumption or for investment. Also referred to as *goods and services* or *commodities* or *items*.
Product error	A product error occurs when price collectors price products that do not match the product specification and neglect to report having done so. This can be because they are not aware of the mismatch, such as when the product specification is too loose, or because they price a substitute product as required by the pricing guidelines but do not mention this on the price reporting form.
Product list	See *basket*. Also referred to as *item list*.
Product specification	A description or list of the physical and economic characteristics that can be used to identify a product selected for pricing. Its purpose is to ensure that countries price comparable items. A product specification can be either brand and model specific - that is, a specification in which a particular brand and model, or a cluster of comparable brands (and possibly models), is stipulated - or generic - that is, a specification where only the relevant price determining and technical characteristics are given and no brand, or cluster of brands, is designated. Also referred to as an *item specification*. See as well *SPD*.
Production boundary	Includes: (a) the production of all individual or collective goods or services that are supplied, or intended to be supplied, to units other than their producers (including the production of goods or services used up in the process of producing such goods or services); (b) the own-account production of all goods that are retained by their producers for their own final consumption or gross capital formation; (c) the own-account production of housing services by owner-occupiers and of domestic and

personal services produced by employing paid domestic staff.

Purchaser's price

The amount paid by the purchaser in order to take delivery of a unit of a good or service at the time and place required by the purchaser. It excludes any VAT (or similar deductible tax on products) which the purchaser can deduct from his own VAT liability in respect of VAT invoiced to his customers. It includes supplier's retail and wholesale margins, separately invoiced transport and insurance charges and any VAT (or similar deductible tax on products) which the purchaser cannot deduct from his own VAT liability. In the case of equipment goods it will also include installation costs if applicable. Purchasers' prices are the prices most relevant for decision-making by buyers.

Quality adjustment

An adjustment to the prices of a product whose characteristics are broadly similar but not the same in all countries pricing it. The aim of the adjustment is to remove from the price differences observed between countries that part of the difference which is due to the difference in the characteristics of the product priced. The adjustment is made so that the price differences between countries reflect only pure price differences. With the exception of housing and education, quality adjustments are not made in Eurostat and OECD comparisons.

Quantity approach

See *direct volume comparison*.

Quantity similarity index

The similarity of the structure of quantities between any pair of countries is measured by the correlation coefficient that is obtained by regressing the internal quantity structure of one country against the corresponding internal quantity structure of the other country. Internal quantity structures can be expressed as a vector of the ratios of product quantities to the quantity of a reference product. In practice, the correlation coefficient is obtained by regressing the basic heading real expenditures. The basic heading real expenditures are interpreted as notional quantities.

Quaranta editing procedure

The inter-country validation procedure proposed by Vincenzo Quaranta that is used by Eurostat and the OECD to edit the average survey prices reported by participating countries for a basic heading. For each basic heading covered by a price survey, the procedure screens the average survey prices for possible errors and evaluates the reliability of the price ratios they provide. It does this by comparing the average survey prices for the same product across countries (the average survey prices having been expressed in the same currency unit for this purpose) and by analysing the dispersion of the price ratios across countries and across products (the price ratios having been standardised for this purpose). It is thus both an editing tool and an analytical tool. As an editing tool it identifies outliers among the average survey prices that need to be returned to participating countries for verification. As an analytical tool it provides a range of variation coefficients – at the product, country and basic heading levels - that can be used to assess the reliability of completed price surveys and assist the planning of future price surveys.

Since 2005, the procedure has also been used to edit prices collected for ICP regional and global comparisons.

Quaranta table	The inter-country validation table generated by the Quaranta editing procedure.
Real expenditures	National expenditures that have been converted to a common currency and valued at a uniform price level with PPPs. Expenditures so converted reflect only volume differences between countries. Also referred to as *real values*.
Real values	See *real expenditures*.
Rebate	A discount paid to the purchaser after the transaction has occurred.
Reference country	The country, or group of countries such as the European Union or the OECD, for which the value of the PPP is set at 1.00 and the value of the price level index and of the volume index is set at 100.
Reference quantity	The quantity to which the prices collected for a product have to be rebased to ensure that they refer to the same quantity when being compared.
Reference year	*A calendar year to which the annual results refer*. Article 3(p) PPP Regulation.
Reference PPPs	PPPs that are use for basic headings for which no prices are collected. They are based on prices collected for other basic headings. Reference PPPs serve as proxies for the missing PPPs.
Relative price levels	These are defined as the ratios of specific PPPs to the corresponding overall PPP for GDP. They indicate whether the price level for a given aggregation level or analytical category is higher or lower relative to the general price level in the country. They facilitate the comparison of price structures across countries. To be meaningful relative price levels should be based on PPPs that have been calculated using an aggregation method that is additive.
Representative items	*Those (items) which are, or are considered to be, in terms of relative total expenditure within a basic heading, among the most important items purchased in national markets*. Article 3(k) PPP Regulation. Also referred to as *representative products* or *asterisk products*.
Representative products	Also referred to as *representative items* or *asterisk products.*
Representativity	A concept that relates to individual products within the same basic heading and to the product list for a basic heading. *Representativity of a product within a basic heading* is defined in terms of a specific country. A product is either representative or unrepresentative of the price level in country A for a given basic heading

irrespective of the relative importance of the basic heading with respect to other basic headings. It is representative if, in country A, the price level of the product is close to the average for all products within the basic heading. Usually, though not necessarily, the purchases of the product will account for a significant proportion of the total purchases of all products covered by the basic heading. If not, the product will at least be sold in sufficient quantities for its price level to be typical for the basic heading.

Representativity of the product list for a basic heading is defined in terms of all countries participating in the comparison. The product list should be equally representative – or equi-representative - of all participating countries. In general, representative products have lower price levels than unrepresentative products. Therefore, if the product list for the basic heading is not equally representative of all participating countries, the price levels for the basic heading will be overestimated for countries pricing a smaller number of representative products and underestimated for countries pricing a larger number of representative products. This does not mean that all countries should have the same number of representative products for each basic heading providing this is taken into account when calculating PPPs for the basic heading. But it does mean that each country should be able to price that number of representative products which is commensurate with the heterogeneity of products covered by the basic heading and its expenditure on the basic heading.

Representativity indicators	*Markers or other indicators identifying those items that Member States (countries) have selected as representative.* Article 3(l) PPP Regulation.

Countries are expected to price their representative products and a selection of unrepresentative products - that is, products representative of other countries. When reporting prices, countries are required to identify which of the products they have priced are representative. They do this by assigning representativity indicators. Asterisks are used as representativity indicators in Eurostat and OECD comparisons. See also *asterisk* and *asterisk product*.

Resident population	The average number of people present in the economic territory of a country during the reference year.
Retropolation	The backward extrapolation of times series.
Rolling survey approach	The approach that allows PPPs to be calculated annually when, for cost reasons, price collection is cyclical and spread over a number of consecutive years. In other words, not all products in the basket being surveyed are priced every year. Prices for products that are not priced are rolled over from the year when they were last priced after being adjusted for any price change that has occurred in the meantime. PPPs for any given year are calculated with the prices that have been collected during the year and the prices that have been rolled over from consecutive years. Eurostat uses the approach for consumer goods and services and for construction. Price collection is spread over three years for consumer goods and services and over two years for construction.

Seasonal products	Products for which both prices and the quantities sold vary significantly throughout the year. Typically, the patterns of variation are repeated from one year to the next. Seasonal products vary from country to country.
Semi-durable good	A good that differs from a non-durable good in that it can be used repeatedly or continuously over a period longer than a year and that differs from a durable good in that its expected lifetime of use, though longer than a year, is often significantly shorter and that its purchasers' price is substantially less. See also *non-durable good* and *durable good*.
Services	Outputs produced to order and which cannot be traded separately from their production. Ownership rights cannot be established over services and by the time their production is completed they must have been provided to the consumers. An exception to this rule is a group of industries, generally classified as service industries, some of whose outputs have characteristics of goods. These industries are those concerned with the provision, storage, communication and dissemination of information, advice and entertainment in the broadest sense of those terms. The products of these industries, where ownership rights can be established, may be classified either as goods or services depending on the medium by which these outputs are supplied.
SNA	*System of national accounts.* A coherent, consistent and integrated set of macroeconomic accounts, balance sheets and tables based on a set of internationally agreed concepts, definitions, classifications and accounting rules.
Social transfers in kind	Individual goods and services provided as transfers in kind to individual households by government units (including social security funds) and NPISHs. The goods and services can be purchased on the market or produced as non-market output by government units or NPISHs. See also *individual consumption expenditure by government* and *individual consumption expenditure by NPISHs*.
Spatial adjustment factors	*Factors used to adjust average prices obtained from one or more pricing locations within the economic territory of a Member State (country) to national average prices.* Article 3(j) PPP Regulation.
Specification pricing	The pricing methodology whereby a list of precisely-defined products is selected in consultation with the countries participating in the comparison with a view to having comparable products priced in each country. Products are fully defined in terms of all characteristics which influence their transaction prices. The objective is to price to constant quality in order to produce price relatives that reflect pure price differences.
SPD	*Structured product description.* SPDs are designed to standardise the product specifications for different types of products so that all product specifications for a particular type of product are defined in the same way and specify the same parameters. Standardising product specifications helps to improve their precision making it easier for price collectors to determine whether or not product in an outlet matches the product specified. Also, by identifying the parameters that need to be

specified for different products, SPDs provide a framework within which countries can present their proposals for new products. See also *product specification*.

Subsidies on production	Subsidies on goods and services produced as outputs by resident enterprises that become payable as a result of the production of these goods or services - that is, subsidies payable per unit of good or service produced - plus subsidies that resident enterprises may receive as a consequence of engaging in production - for example, subsidies to reduce pollution or to increase employment. The former are called *subsidies on products*. The latter are called *other subsidies on production*.
Subsidies on products	See *subsidies on production*.
Surcharge	An addition to the list price of a good or service. Generally of a short duration reflecting unusual cost or supply pressures affecting the seller.
Symmetric index	An index that treats the two countries being compared symmetrically by giving equal importance to the price and expenditure data of both countries. The price and expenditure data for both countries enter into the index number formula in a balanced or symmetric way.
Taxes on production	Taxes on the goods and services produced as outputs by resident enterprises that become payable as a result of the production of these goods or services - that is, taxes payable per unit of good or service produced such as excise duties and non-deductible VAT - plus taxes that resident enterprises may pay as a consequence of engaging in production - taxes such as payroll taxes and taxes on motor vehicles. The former are called *taxes on products*. The latter are called *other taxes on production*.
Taxes on products	See *taxes on production*.
Temporal adjustment factors	*Factors used to adjust average prices obtained at the time of survey to annual average prices*. Article 3(i) PPP Regulation.
Transaction	The buying and selling of a product on terms mutually agreed by the buyer and seller.
Transaction price	See *market price*.
Transitivity	*The property whereby the direct PPP between any two Member States (countries) yields the same result as an indirect comparison via any other Member State (country)*. Article 3(n) PPP Regulation.

For example, in the case of the three countries A, B and C, the ratio of the PPP between A and B and the PPP between C and B is equal to the PPP between countries A and C as follows: $PPP_{A/C} = PPP_{A/B} / PPP_{C/B}$. Also referred to as *circularity*.

Unique price	A uniform price. A price which is the same in all outlets at which the product is sold. Unique prices can usually be collected centrally or by visiting a single outlet.
Unique product	A product that is only manufactured once to the specification of an individual customer.
Unit value	The total value of the purchases/sales for a set of homogeneous products divided by the sum of the quantities purchased/sold. It is a quantity weighted average of the different prices at which the products are purchased/sold. Unit values are often calculated for sets of products that are similar, though not perfectly homogeneous, provided that they are all measured in the same quantity units – for example, motor vehicles. Thus differences in unit values over time (or between countries) may be due to changes (or differences) in the mix of products purchased/sold rather than to changes (or differences) in prices. This is referred to as the *unit value mix problem*.
User-cost method	The method of estimating the value of imputed rentals by summing the relevant cost items: intermediate consumption (current maintenance and repairs, insurance), consumption of fixed capital, other taxes on production and net operating surplus (nominal rate of return on the capital invested in the dwelling and land).
Validation	The editing and verification of survey data. Scrutinizing survey data for possible error; investigating the possible errors identified to establish whether they are actual errors or valid observations; correcting or removing the possible errors found to be actual errors.
Valuables	Produced assets that are not used primarily for production or consumption, that are expected to appreciate or at least not decline in real value, that do not deteriorate over time in normal conditions, and that are acquired and held primarily as stores of values.
VAT	*Value added tax*. A tax on products collected in stages by enterprises. It is a wide-ranging tax usually designed to cover most or all goods and services. Producers are obliged to pay to government only the difference between the VAT on their sales and the VAT on their purchases for intermediate consumption or capital formation. VAT is not usually levied on exports. See also *deductible VAT* and *non-deductible VAT*.
Verification	The second step of validation: investigating the possible errors detected during the editing of survey prices to establish whether or not they are actual errors and, if they are actual errors, correcting of suppressing them. In many cases, verification will require revisiting the outlets where the prices were collected to see whether what was priced matches the product description and whether the correct price and quantity were recorded. Price observations that are found to be incorrect should be either eliminated or replaced by the correct observation.
Volume index	A weighted average of the relative levels in the quantities of a specified set of goods and services between two countries. The quantities have to

be homogeneous while the relative levels for the different goods and services must be weighted by their economic importance as measured by their values in one or other or both countries.

Volume similarity index

See *quantity similarity index*.

Weighted CPD method

A variant of the CPD method in which representative products receive a higher weight in the calculation than non-representative products. For example, representative products could have the weight of 2 or 3 and unrepresentative products a weight of 1. The choice of weights is arbitrary as it is with the EKS. However, the weights of 1 for a representative product and 0 for an unrepresentative product used in the EKS cannot be used in a weighted CDP because the assignment of 0 to prices of unrepresentative products will remove them from the calculation.

Well-known brand

The term in a product specification that indicates that the product specified has a brand value without specifying any particular brand or brands. Well-known brands can be international brands or national brands. Well-known International brands may not necessarily have the same brand value in all participating countries. Hence, for those kinds of products for which brand value is important, products such as clothing, footwear, furniture, household durables and consumer electronics, Eurostat and participating countries have classified well-known international brands into three segments - high, medium and low - that reflect the brand value perceptions in participating countries. Countries locate the segment in which to include a well-known national brand by identifying a well-known international brand with an equivalent brand value and putting the national brands in the same segment. Product specifications covering well-known brands also specify the segment from which the well-known brand or brands are to be taken.

Abbreviations and acronyms

AIC	Actual Individual Consumption
AICE	Actual Individual Consumption of Education
COICOP	Classification of Individual Consumption According to Purpose
COFOG 98	Classification of the Functions of Government 1998
COPNI	Classification of the Purposes of Non-Profit Institutions Serving Households
CPA 96	Classification of Products by Activity 1996
CPA 2008	Classification of Products by Activity 2008
CPD	Country Product Dummy (method)
CPI	Consumer Price Index
CPRD	Country Product Representativity Dummy (method)
DET	Data Entry Tool
DRG	Diagnosis Related Group
ECP	European Comparison Programme
eDAMIS	electronic Data files Administration and Management Information System
EKS	Èltetö-Köves-Szulc (method)
EKS-S	Èltetö-Köves-Szulc-Sergeev (method)
ESA 95	European System of Accounts 1995
ESA 2010	European System of Accounts 2010
ESCS	Economic Social and Cultural Status
EU	European Union
FTE	Full-time equivalent
GDP	Gross Domestic Product
GEKS	Gini- Èltetö-Köves-Szulc (method)
GK	Geary Khamis (method)
GFCE	Government Final Consumption Expenditure
GFCF	Gross Fixed Capital Formation
GK	Geary Khamis (method)
HICP	Harmonised Index of Consumer Prices
ICP	International Comparison Programme
ICD	International Classification of Diseases
IMF	International Monetary Fund
ILMT	Item List Management Tool
ISCED-97	International Standard Classification of Education 1997
ISCO-08	International Standard Classifications of Occupations 2008
IT	Information Technology
NACE	Nomenclature Générale des Activités Economiques dans les Communautés Européennes (General Industrial Classification of Economic Activities within the European Communities)
NPISH	Non-Profit Making Institution Serving Households
NSI	National Statistics Institute
PISA	Programme for International Student Assessment
PLI	Price Level Index
PPP	Purchasing Power Parity
PPS	Purchasing Power Standard
SNA 93	System of National Accounts 1993
SNA 2008	System of National Accounts 2008
SPD	Structured Product Description
VAT	Value Added Tax
VT	Validation Tool