

Explanation of the 2000 Base Corporate Services Price Index (CSPI)

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For the results of the revision to the 2000 base, please refer to the paper “Revision of the Corporate Service Price Index (CSPI) to the 2000 base” released in November 2004 in the Statistics, Research and Studies section of the Bank of Japan (BOJ) website, <http://www.boj.or.jp/en/theme/research/index.htm>.

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1. Purpose, Application and History

1.1. Purpose and Application

The Corporate Services Price Index (CSPI) focuses on the prices of services traded among corporations, and is regarded as a counterpart to the Corporate Goods Price Index (CGPI), which focuses on the prices of goods traded among corporations (see Appendix 1). The main purpose of the index is to investigate price developments that closely reflect supply and demand conditions in the services market, with a view to facilitating the analysis of macro economic conditions. At the same time, indexes for lower-order (less-aggregated) categories, such as individual *items*, not only have a role as deflators that transform nominal output values into real quantities, but are also useful as references when determining prices for individual transactions.

The CSPI is constructed from the prices of the services covered by the index, which are multiplied by certain weights reflecting the relative importance of each service, and then aggregated. Prices are obtained by individually surveying the prices of representative services, while weights are calculated relative to the total value of the services transactions covered by the index (i.e., the value of domestic and imported services transactions among corporations). Indexes for individual *items* are constructed by converting each of the individually surveyed prices (*sample prices*) of representative services into an index value, and then generating a weighted average of these.

1.2. History

With the Japanese economy becoming progressively more service-oriented, an accurate understanding of developments in the prices of services transactions between corporations requires us to supplement our picture of the prices of goods covered by the CGPI with information about the prices of services. The CSPI was developed by the Bank of Japan in response to this need, and has been published since January 1991 (the 1985 base index). Since then, following the first two revisions of the index base, to 1990 and to 1995, there was a further revision of the base to 2000, the results of which were released in November 2004.¹

2. Structure

2.1. Basic Grouping Index

The index series produced for the basic categories of the CSPI (the basic grouping index) cover only transactions for domestic and imported services. Transactions contracted in foreign currencies are converted into yen and included in the aggregate, however they are also compiled and released in their original contract currencies as reference indexes under the basic grouping index. Note that while the basic grouping indexes of the CGPI are categorized according to whether prices are for domestic goods, for imports, or for exports, the basic grouping index of the CSPI do not offer this categorization. This is because the value of domestic services transactions accounts for most of the total value of services transactions between corporations (i.e., the sum of the values of domestic, export and import services

¹ See Reference 1 and 2.

transactions).^{2, 3} Export services are not included in the basic grouping index because the value of export services transactions is minimal and (a) they do not reflect or have any impact on supply and demand conditions in individual services markets in Japan; (b) they do not have any impact on the service production costs for the service providing corporations in Japan.

The CSPI surveys prices including consumption tax.

2.2. Reference Indexes⁴

(a) Export Corporate Services Price Index⁵

The index covers the export services, which are out of scope of the basic grouping index, and compiles a main component of the export services “Export freight transportation” in consideration for further improvement in convenience and usefulness of the CSPI, not only for the uses such as research analysts, but also for the application to deflators in the *System of National Accounts (SNA)*.

(b) Corporate Services Price Index excluding Consumption Tax

The CSPI is recompiled using prices excluding consumption tax.⁶

3. Coverage

The CSPI covers services that are provided by corporations for other corporations.⁷ There are therefore some services (postal services, telecommunications services etc.) that are included in both the CSPI and

² Domestic services transactions refer to transactions between corporations established in Japan. Import services refer to transactions between foreign and domestic corporations, where the foreign corporation is the provider of the service. Export services refer to the equivalent transactions, but where the Japanese corporation is the provider. Thus, even if, for example, a goods transportation service involved importing goods from a foreign country to Japan, this would be defined as a *domestic service transaction* as long as both parties to the transaction, both the provider and the client, were Japanese corporations.

³ According to the *Input-Output Tables (I-O Tables)* published by the Ministry of Internal Affairs and Communications, the value of export services was 10.8 trillion yen in 2000, while the equivalent figure for import services was 8.8 trillion yen. These represent, respectively, just 2.1% and 1.7% of the 531.1 trillion yen worth of domestic services transactions the same year. Looking at the breakdown of export and import services, the major items are seen to be ocean transportation and international air transportation.

⁴ *Items* those are not included in basic category indexes, basic grouping index.

⁵ The Export Corporate Services Price Index corresponds to the reference index, Items not included in indexes for basic grouping, released for the 1995 base CSPI.

⁶ Indexes on a contract currency basis, which correspond to the reference indexes under the basic grouping index, are not compiled in the Corporate Services Price Index excluding Consumption Tax.

⁷ The coverage of the CSPI is basically the same as that of intermediate transactions in sectors corresponding to services in the output table of the “Transition Tables” (according to the Basic Sector Classification)” from the *I-O Tables* (see Appendix 1 (2)). However, the CSPI also covers the value of some transactions for example that are included in the *I-O Tables* as a final demand item, gross domestic fixed capital formation, in cases where both parties to these transactions are recognizably corporations (as, for example, in the case of freight transportation services that involve the conveyance of capital goods) – for details, see section 7. 1.

the Consumer Price Index (CPI) because they are services demanded not only by individual consumers but also by corporations.

In practice, certain services are not included in the index (and are excluded from the weight calculation), even though they meet the above criterion. These are services whose prices are difficult to survey continuously and reliably, and for which ready substitutes cannot be found among services already included in the index that either display similar characteristics or demonstrate comparable price developments (imputed interest, wholesale and retail trade, education and research, medical services, health and social security, public administration etc.).⁸

The share of the excluded services amounts to about 40% of the total value of transactions for which weights are calculable (after all the “total value of calculable services transactions”).⁹ In what follows, for the sake of convenience, the value of transactions for which weights are actually calculated (i.e., the remaining 60%) is referred to as the “total value of transactions for the index.”

The “total value of transactions for the index” and other relevant values for the 2000 base CSPI (all calculated from the Ministry of Internal Affairs and Communications, *I-O Tables* etc.) are as follows:

Total value of calculable services transactions	Total value of transactions for the index	Total value of excluded transactions
A	B	C
197,252.3 billion yen	125,398.8 billion yen	71,853.5 billion yen
B/A	C/A	
63.6%	36.4%	

⁸ When a service, already selected in the index, displays similar characteristics or demonstrates comparable price developments to an *unselected service*, this allows the *unselected service* to be included in the index, its price being replaced with that of its substitute. In practice, the weight of the *unselected service* is added to or imputed to that of its closest substitutes (see section 7.2). Note that the value of transactions in the in-house activities sector, such as “Transport by private cars (passengers)” and “Transport by private cars (freight),” is excluded from the CSPI because these transactions are traded inside corporations. The CSPI covers only transactions arising between corporations.

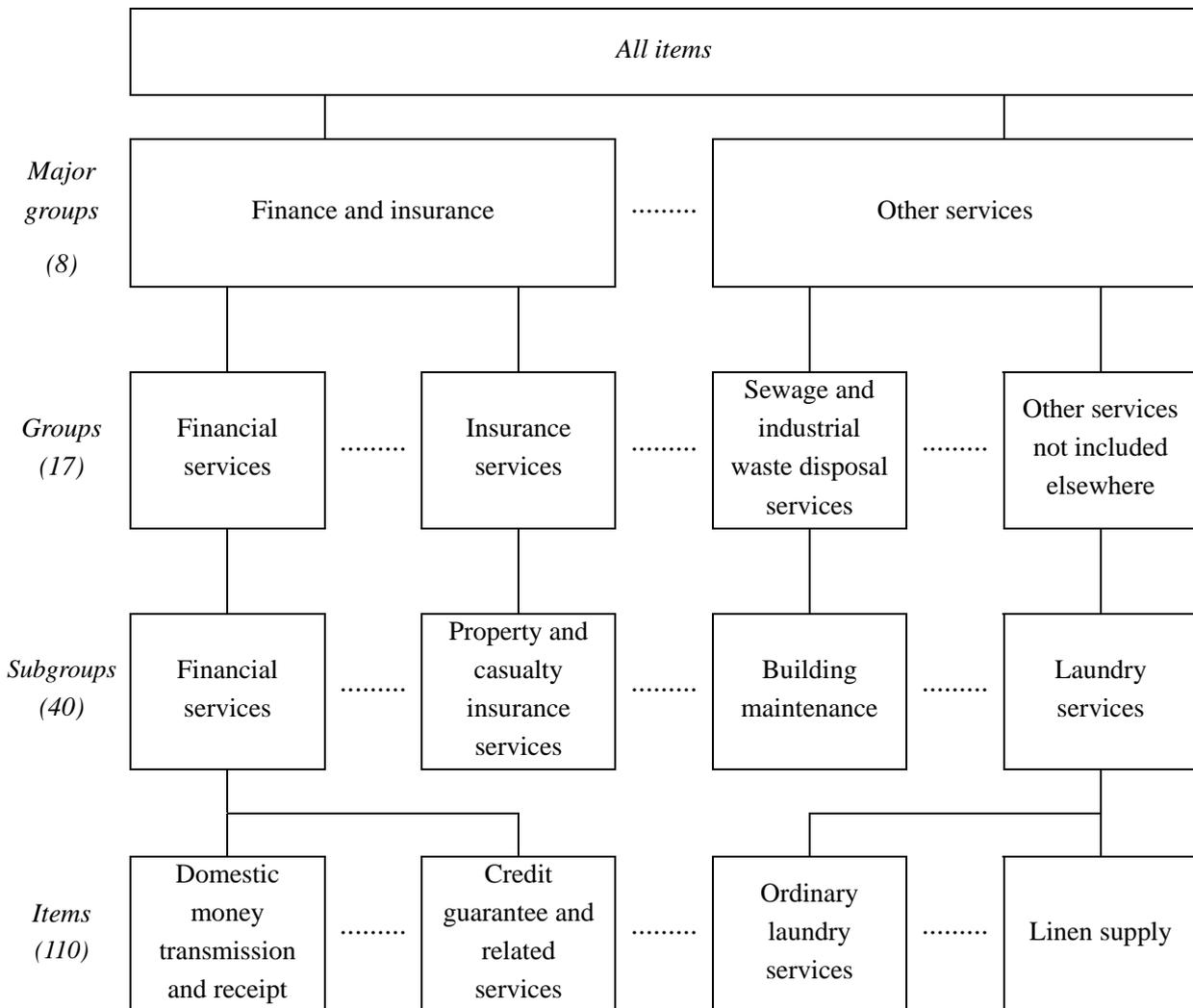
⁹ Although the value of transactions for “imputed interest” and “wholesale and retail trade” make up 11% and 18% respectively of the “total value of calculable services transactions (2000 base *I-O Tables*),” these services are excluded from the CSPI because obtaining continuous and reliable *sample prices*, ensuring the corresponding surveyed services quality constant is problematic. Their exclusion is the main reason why the CSPI only covers about 60% of the “total value of calculable services transactions,” whereas the CGPI achieves about 90% coverage.

4. Classification

4.1. Basic Grouping Index

The basic grouping index, the basic category index, comprises four strata: *major groups*, *groups*, *subgroups* and *items*. The first three of these correspond to the eponymous strata in the *I-O Tables*, although within strata, the *I-O Tables* classification is rearranged as required. Specifically, there are eight *major groups* (“Finance and insurance,” “Real estate services,” “Transportation,” “Communications and broadcasting services,” “Advertising services,” “Information services,” “Leasing and rental” and “Other services”); 17 *groups*, and 40 *subgroups*.¹⁰ Meanwhile the *items* stratum is divided into 110 categories (for details on these *items*, see section 6).

<CSPI: Classifications Used in the Basic Grouping Index>



Note: Numbers in parentheses describe the number of categories within each classification stratum of the 2000 base CSPI.

¹⁰ For details, see Appendix 2 and Appendix 3.

Items in the basic grouping index where contract currencies include *sample prices* contracted in foreign currencies (“Ocean liner,” “Ocean tramper,” “Ocean tanker,” “Oceangoing ship chartering services,” “International air freight” and affected indexes of higher orders of aggregation (i.e., more aggregated indexes that include these *items*, namely, *subgroups*, *groups*, *major groups* and *all items*)) are also compiled and published as reference indexes under the basic grouping index, where they are given index values based on their original contract currencies without conversion into yen.¹¹

4.2. Reference Indexes¹²

(a) Export Corporate Services Price Index

In this index export freight transportation is included in the form of three *items*: “Ocean freight transportation” and “International air freight transportation,” both of which are given on a yen basis; and “Ocean freight transportation,” which is given on a contract currency basis (recall that domestic and import freight transportation transactions were included in the basic grouping index within the *major group* “Transportation”).

(b) Corporate Services Price Index excluding Consumption Tax

Classification is the same as basic grouping index, with four classification strata: *major group*, *group*, *subgroup* and *item*. The index is compiled on a yen basis only (i.e., indexes corresponding to the reference indexes under the basic grouping index are not compiled as the Corporate Services Price Index excluding Consumption Tax).

5. Index Base Year, and Year for Weight Calculation

The base year both for the indexes and for weight calculation is 2000.

6. Selection of Items

6.1. Item Selection Procedure

In the basic grouping index of the CSPI, in principle *items* are selected so as to secure sufficient coverage for the “total value of transactions for the index” in 2000 (see section 3). The selection procedure is outlined as follows:

- (a) In principle, intermediate services transactions listed in the *I-O Tables* (these are equivalent to services transactions between corporations) whose value is no less than 500 billion yen (about 0.4% of the “total value of transactions for the index” for the 2000 base CSPI) are selected as *subgroups*.
- (b) Next, within these *subgroups*, individual services for which it is possible to obtain data on transaction values so as to calculate weights and for which adequate price data can be collected continuously are selected as *items*.

¹¹ *Sample prices* refer to the survey data on prices obtained monthly by mail survey and constitute the basic data for compiling the *item* indexes of the CSPI (see section 8.1).

¹² As above, the indexes for the *items* are those not included in the basic grouping index.

As explained in (a) and (b) above, there is no objective criterion such as a minimum level of transaction value for selecting *items* in the CSPI. This contrasts with the CGPI, where for example, for the Domestic Corporate Goods Price Index (DCGPI) only commodities with transaction values no less than 1/10,000 of the “total value of transactions for the index” are selected as the *commodities* (the *commodities* in the CGPI corresponds to the *items* in the CSPI). The reason for this is the absence of comprehensive data on transaction values at the *item* level, such as the *Census of Manufactures* provided by the Ministry of Economy, Trade and Industry’s, on which the DCGPI is based.¹³

6.2. Exceptional Selection of Items

Some services involving transactions of a value less than the minimum specified in the criterion for *subgroup* selection are nevertheless selected as *subgroups* and their corresponding *items* included if they are deemed likely to satisfy the above criterion in the near future, or if they are considered essential for the overall balance of the category classification system of the CSPI.

<Examples of Exceptional Treatment>

Major Group	Group	Subgroup	Reasons for exceptional selection of subgroup
Transportation	Overland freight transportation	*Railroad freight transportation Road freight transportation	In consideration of the balance with the <i>subgroup</i> “Road freight transportation.”
	Air freight transportation	*International air freight transportation *Domestic air freight transportation	At the <i>group</i> level, in consideration of the balance with the <i>group</i> “Overland freight transportation,” and “Marine freight transportation.” At the <i>subgroup</i> level, in consideration of the division between international and domestic services.

Note: *Subgroups* marked with asterisks are selected exceptionally, even though they involve transactions whose value falls below the minimum 500 billion yen selection required for selection.

¹³ For intermediate transactions recorded in the *I-O Tables*, the *basic sector* (broadly corresponding to the *subgroup* stratum of the CSPI) is the smallest division available.

On the other hand, some services are excluded as *items* of the CSPI (i.e., they are *unselected services*) even though they involve transactions of a value exceeding the minimum required for selection. These are: (a) services for which fixed-quality prices are difficult to measure continuously; (b) services for which *sample prices* are difficult to obtain from more than one correspondent corporation.¹⁴

6.3. Number of Items

There are 110 *items* in the 2000 base CSPI (for details, see Appendix 2).

7. Weights

7.1. Calculation of Weights

The weights on the *items* used in compiling the basic grouping index of the CSPI are expressed as one-thousandths of the “total value of transactions for the index,” down to the first decimal place. The calculation procedure is as follows:

- (a) In principle, from the transaction values reported in the *I-O Tables* we adopt the intermediate transaction values in services sectors as the transaction values for calculating the weights of the corresponding *subgroups*.
- (b) Transaction values for subgroups are divided into those for items, based on data from the Table on domestic production by sector and commodity in the I-O Tables or other such statistics (in principle all value-based data). These are the values on which the weight calculation for items is based.¹⁵
- (c) Transaction values for unselected services (see section 7.2) are added to a similar item or imputed to the items belonging to a similar subgroup, group or major group.
- (d) Transaction values for items, after adjustment (c) above, are then expressed as one-thousandths of the “total value of transactions for the index” to obtain their respective weights.

There are some transactions that are not included in the intermediate transactions of the *I-O Tables*, but which are recognized as involving service transactions between corporations and so are deemed fit for inclusion in the CSPI. For example, certain transactions in the software service sector and freight transportation services for capital goods are included in the calculation of the CSPI weights.^{16, 17}

¹⁴ For the treatment of *unselected services* in the process of weight calculation, refer to section 7.2.

¹⁵ For example, for the *items* belonging to the *major group* “Leasing and rental,” the *Table on domestic production by sector and commodity* in the *I-O Tables* and the *Report on the Survey of Selected Service Industries, Rental and Leasing* from the Ministry of Economy, Trade and Industry are both used.

¹⁶ The value of transactions for the software service sector is calculated as the sum of the total value of intermediate transaction and gross domestic fixed capital formation in the software service sector, minus the value of game software transactions among corporations (the latter is separately estimated).

Although this value is appropriated from the gross domestic fixed capital formation, which is a final demand

7.2. Treatment of Unselected Services

Services included in the “total value of transactions for the index” but which are not selected as *items*, either because they involve transactions of insufficient value or because surveys of their prices are difficult to implement on a continuous basis, are referred to as *unselected services*. Calculation of the weights of *unselected services* is handled as described in the steps below.

- (a) If a service selected as an *item* in the CSPI has similar characteristics and its price developments resemble those of an *unselected service*, then it is classified as a *similar service*, and the transaction value of the *similar service* is simply added to that of the similar *item*.
- (b) If no similar service *item* can be found as in (a), then *unselected services* are classified as *others*. In this case, the transaction value of the *others* is added to that of the *subgroup, group* or *major group* whose characteristics and price developments most closely resemble its own. Specifically, the transaction value of each of the *items* making up the relevant category (after implementing adjustment (a) as appropriate) is increased in proportion to its share in the category’s overall transaction value, so that the category’s overall transaction value rises by the amount of the *others’* transaction value. This process is known as “imputation.”

The final transaction values used for the weight calculations of the *subgroups, groups* and *major groups*, are calculated as the sum of the *item* transaction values obtained after going through the process outlined above. Aggregating these further gives the “total value of transactions for the index” discussed in section 3.

<Breakdown of the “Total Value of Transactions for the Index”>

Unselected services

Items	(i) Similar services	(ii) Others (imputed services)
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Total value of transactions for the index

item, it can nevertheless be considered as comprising services provided by corporations for corporations, and this justifies its inclusion in the CSPI.

¹⁷ In the *I-O Tables*, the transaction value of freight transportation services for capital goods is counted in the gross domestic fixed capital formation, which is a final demand item. However, these too be considered as services provided by corporations for other corporations, and so are included when calculating weights for the CSPI.

<Breakdown of “Total Value of Transactions for the Index” for the 2000 Base CSPI>

Total value of transactions for the index (A) <billion yen>	Transaction value of selected items (B) <billion yen>	B/A (%)	Transaction value of similar services(i) (C) <billion yen>	C/A (%)	(B+C)/A (%)	Transaction value of others(ii) (D) <billion yen>	D/A (%)
125,398.8	108,253.6	86.3	109.2	0.1	86.4	17,036.1	13.6

As can be seen above, most *unselected services* are dealt with as *others* and are therefore imputed. Of these imputed *others*, slightly less than half are those “Other business services” and “Personal services” from the *I-O Tables*, that were not selected as *items*.

7.3. Weights for Sample Prices

The weights accorded to the *sample prices* for a single *item* are, in principle, allocated equally among the component *sample prices* for that *item* (see section 8). However, where developments in prices differ due to differences in the characteristics of services or their providers, and when it is possible to calculate the appropriate weight allocations thanks to available data from other statistics compiled by official organizations and cooperating associations, then different weights are accorded to component *sample prices*.¹⁸

7.4. Changes to the Weights for Sample Prices

Since the CSPI is generated using the fix-weighted Laspeyres formula for the index calculation (see section 9), the weights for *items* are fixed in the base period. Similarly, the weights on the component *sample prices* for each *item* are also, in principle, fixed in the base period. For this reason, when, as described above, there are differences in the weights accorded to service units within a particular *item*, the weights are fixed in the base period.

As an exception, however, the weights accorded to component *sample prices* are changed when a revision of the surveyed *sample prices* causes the change in the number of *sample prices* for a particular *item*. On such occasions, where there are differences in the weights accorded to service units within an *item*, all units retain the weight that was fixed in the base period. It is only within the unit where changes in the number of *sample prices* were observed that the weights allocated to component *sample prices* are changed.

¹⁸ For example, different weights are accorded to the component *sample prices* of the *items* “Fire insurance” and “Marine and other transportation insurance services” in group “Insurance services,” in line with the published data from the Non-life Insurance Rating Organization of Japan and the General Insurance Association of Japan.

8. Sample Prices

8.1. Basic Principles of Price Survey

Sample prices for compiling the indexes on individual *items* in the CSPI are obtained by monthly mail survey. The following two points are emphasized in the collection of *sample prices*: (a) the prices chosen should be the actual service transaction prices and should closely reflect supply and demand conditions for the *item* concerned; (b) they should capture only pure price developments, by fixing quality and contract conditions.

In order to protect the privacy of correspondent corporations participating in the survey, the *sample prices* for each *item* are, in principle, obtained in the form of at least three surveyed prices from plural participating corporations. In cases where it is not possible to obtain three surveyed prices from plural participating corporations, but it is still possible to get an adequate grasp of price developments, the *item* is selected for the CSPI but the individual *item* index is not publicly released (for details see section 10.3).¹⁹

8.2. Stage of Survey

In contrast to the distribution process for goods, services are typically supplied directly by the supplier (producer) to the end-user (i.e., the service “product” tends not to arrive at the end-user via several intermediaries, such as primary or secondary wholesalers). In principle, therefore, *sample prices* are obtained from suppliers (producers). However, *sample prices* are also obtained from intermediaries such as advertising agencies whose intermediation takes the form of services.

8.3. Point of Time of the Survey

In principle, the point of time at which *sample prices* are surveyed is the time of contract. However, the prices of some services, where contract terms are yearly or quarterly, are impossible to survey on a real time basis for the following reasons: (a) due to protracted price negotiations between suppliers and users, prices are determined after the contracts have begun and applied retroactively; (b) *sample prices* are received after the index has been published, due to data collection limitations at the corporations concerned. In such cases, once the relevant *sample prices* have been received, they are reflected in the CSPI on the next occasion that a retroactive index revision is scheduled (see section 10.4).

8.4. Specification of Sample Prices

In collecting *sample prices*, representative services are selected for each *item* in the CSPI, and both the transaction partners and the contract conditions for these services are fixed. Actual transaction prices (in principle, adjusted for discounts, rebates, etc.) are then continuously surveyed. If *sample prices* cannot be collected in accordance with these principles, alternative measures to fit specific circumstances are taken as follows:

¹⁹ Services whose prices are difficult to survey continuously are not selected as *items* (they are treated either as *unselected services* or as *services excluded from the weight calculation*). For details see section 6.2.

- (a) The averaged price (the total value of transactions in the month / the total quantity of transactions in the month) of as many services as can be included without compromising the condition that quality of surveyed services should be fixed is adopted as the relevant *sample prices* (see section 8.5).
- (b) Where surveyed prices take the form of commission rates, these are converted into a form comparable with other *sample prices* in the index (i.e., converted into value terms) by multiplying them by the appropriate price indexes (“inflators”). Examples include *sample prices* for “Securities brokerage services,” “Underwriting services,” “Securities selling services,” “Credit guarantee and related services,” “Fire insurance,” “Industrial machinery leasing,” “Leasing of machinery and equipment for commercial and other services,” “Leasing of computer and related equipment”, “Computer rental” and so on.
- (c) Monthly rate per person (i.e., the cost of employing one worker for a month) are surveyed and used as *sample prices*, instead of the price for the service provided in its entirety (for example, “Custom software,” “Architectural design and contract administration services,” “Temporary employment agency services,” etc.).²⁰
- (d) List prices and discount rates are surveyed separately and compounded to reflect actual price developments (“Fixed telephone services,” “Leased circuits,” “Cellular phone services,” etc.).²¹
- (e) List prices are surveyed and adopted as *sample prices* (“Urban expressways,” “Other toll roads,” “Broadcasting services,” etc.).

With the growing diversification of service prices, there has been an increase in the number of cases where it is difficult to capture actual price developments. For cases, therefore, where taking standard prices from list prices has become inappropriate in practice, the prices adopted as *sample prices* in the CSPI are those closest to actual prices that reflect discounts etc. as fully as possible. Growing price diversification is also dealt with by including discounted prices, as in the following examples:

- (a) “Zone PEX fares” for the *item* “International air passenger transportation” and ticket booklets for the *item* “Domestic air passenger transportation” have been adopted as *sample prices*.²²

²⁰ These monthly rates per person include averaged monthly rates per person which are calculated under certain specified transaction conditions. For example, averaged prices calculated after specifying conditions such as the type of employment (operating office equipment, filing, etc.), the regional area, the shape of the contract and so on, are adopted as *sample prices* describing monthly rates per person for “Temporary employment agency services.”

²¹ This procedure was first introduced in the 1995 base index. For cases when discount rates cannot be surveyed on a real time basis, initially indexes calculated from the regular prices such as list prices and the previous discount rates are released, then, once the new discount rates for the relevant period are reported by the correspondent corporations, a retroactive index revision is implemented (see section 10.3).

²² “Zone PEX (Purchase Excursion) fares” are formal discount airfares determined by each airline company. The fares are cheaper than fares for normal tickets, but there are restrictions on validity and changing reservations. Also, the tickets are nonrefundable or only partly refundable.

- (b) For the *items* “Shinkansen bullet train” and “Railroad passenger transportation (excluding Shinkansen bullet train),” ticket booklet fares and round-trip fares have been adopted. For the *item* “Hired car and taxi,” long-distance discount fares and extra charges have been adopted.

8.5. Adoption of Averaged Prices

Where difficulties arise in collecting *sample prices* in line with the above principles, the CSPI applies an averaged price (the total value of transactions in the month / the total quantity of transactions in the month), where this average covers services without significantly compromising the condition that quality should be fixed. However, since the use of such an average involves the partial relaxation of the conditions that transaction partners and contractual terms should be fixed, the decision about whether or not to adopt it is taken cautiously and only after a thorough investigation into the characteristics and transaction conditions of services in each an every case, so as to avoid compromising the fixed quality condition.²³

Some specific instances where the adoption of an averaged price was investigated are given below:

- (a) Cases where services are exceptionally idiosyncratic

Where services are exceptionally idiosyncratic, it becomes difficult to maintain statistical accuracy in the conventional price survey method of specifying in detail the composition of the services surveyed, unless *sample prices* are aggregated from a wide range of sources (e.g., the *item* “Custom software”).

- (b) Cases where discounts from individual negotiations or similar business activities result in growing price diversification (multiple prices for one product)

²³ Whenever adoption of an averaged price is under consideration, the following criteria are applied and a decision about the suitability of each piece of *sample prices* is reached separately, so as to ensure that the fixed quality condition is not compromised.

- (a) In cases where the price difference exists because the transaction partners are different, both the service and the transaction partner are fixed in calculating the averaged prices.
- (b) In cases where the price difference from varying the transaction partners is negligible, only the service is fixed in calculating the averaged prices.
- (c) In cases where it is difficult to specify a representative service from the services in the *item* because of the idiosyncrasy of the services, and where the price difference exists because the transaction partners are different, both the “service group” (several comparable services that perform similar functions or have similar applications) and the transaction partner are fixed in calculating the averaged prices.
- (d) In cases where it is difficult to specify a representative service from the services in the *item* because of the idiosyncrasy of the services, and where the price difference from varying the transaction partners is negligible, only the “service group” (several comparable services that perform similar functions or have similar applications) is fixed in calculating the averaged prices.

However, some services are so highly idiosyncratic that it becomes difficult to define a “service group” of comparable services strictly. In these cases only, the requirements for being in the same “service group” are

Where there is growing price diversification (multiple prices for one product), with mostly larger transaction partners obtaining discounts through individual negotiations, it becomes difficult to maintain statistical accuracy in the conventional method of specifying transaction partners and contract conditions unless *sample prices* are aggregated from a wide range of sources (e.g., the *items* “Domestic money transmission and receipt,” “Securities issuance,” “Transfer and related services,” “Underwriting services,” the *item* “Office space rental (areas around Tokyo)” and all other *items* in the *major group* “Real estate services,” the *items* “Chartered bus,” “Newspaper advertising,” “Magazine advertising,” “Television commercials,” “Temporary employment agency services,” etc.).

- (c) Cases where a suitable representative transaction partner is unavailable such as cases where spot market transactions are predominant.²⁴

In the conventional surveying method in which transaction partners are specified, if the value of the transactions carried out with the specified partner constitutes only a small share of the total value of relevant service transactions, it becomes difficult to maintain statistical accuracy unless *sample prices* are aggregated from a wide range of sources (e.g., the *items* “Custom software” and all the *items* in the *subgroup* “Leasing” which surveys only prices determined in fresh contracts in the survey month).

8.6. Use of Provisional Prices

When contract terms last only several months (quarterly, bi-annual contracts etc.), and when prices are only determined after the contract has begun (or indeed after the contract has terminated), the index is composed using “provisional prices” (these are the interim prices used for transactions until final prices are formally determined). These prices, when available, are accurate up to a point, and the index is then later revised in light of the finalized prices on the next occasion that a retroactive index revision is scheduled.²⁵

8.7. Price Survey Procedure

In the middle of every month, correspondent corporations are requested to return the previous month’s survey recording the representative prices for that month. When contracts of surveyed services transaction specify prices in foreign currencies,²⁶ the *sample prices* are recorded in the original contract currency. This data is then dealt with, for compiling two types of indexes: (a) in compiling indexes on a yen basis, prices in the contract currency are converted into their yen equivalents using the monthly

sometimes more relaxed than in the instances given in (c) and (d) above.

²⁴ The value of the service transactions surveyed must represent a sufficiently high share of the relevant market or of the total value of the transactions of the relevant corporations.

²⁵ See section 10.4.

²⁶ Specifically, *sample prices* originally contracted in foreign currencies are included, in the five *items* in *major group* “Transportation,” “Ocean liner,” “Ocean tramper,” “Ocean tanker,” “Oceangoing ship chartering services” and “International air freight”; and the *item* “Ocean freight transportation” in the reference index, Export Corporate Service Price Index.

average spot exchange rates (TTM: Telegraphic Transfer Middle Rate^{27, 28}); or (b) in compiling indexes on a contract currency basis, contract currency prices are used to construct indexes directly (with the same weights on *items* as were used in the yen base indexes).

If no transactions are contracted for at the time of the survey, or if a correspondent corporation fails to respond to the survey, then, in principle, the relevant *sample prices* are treated as unchanged from the previous month.²⁹ When there are no contracted transactions and prices in the original contract currencies are treated as unchanged from the previous month (for indexes compiled on a contract currency basis), then in converting prices into yen (for indexes compiled on a yen basis) the exchange rate used is that for the current survey month so as to ensure that any exchange rate fluctuations are reflected evenly across the index.³⁰

8.8. Number of Sample Prices and of Correspondent Corporations

In contrast to goods, services do not involve inventories, and because of regional and individual differences, price levels and price developments tend to vary even for what are nominally the same services. For this reason, in compiling the CSPI, every effort is made to secure a very large number of *sample prices* for each *item* (relative for instance to the number of *sample prices* per *commodity* in the CGPI) so as to ensure that the surveyed *sample prices* capture as closely as possible price developments within the *item* as a whole. The number of *sample prices* used in compiling the basic grouping index of the 2000 base CSPI is 3,050 (as of October 29, 2004), or around 28 *sample prices* per *item* on average (for the CGPI the equivalent figure is around six per *commodity*).³¹

²⁷ According to commercial custom, there are cases when services transactions are contracted in foreign currencies even among domestic corporations (e.g., for ocean freight transportation and international air freight transportation).

²⁸ For the index figures from January 2000 to December 2004 in the 2000 base CSPI, foreign currency buying rates are used for exports and domestic transactions, while foreign currency selling rates are used for imports.

²⁹ If a correspondent corporation has not yet responded to the price survey at the preliminary figures stage, some appropriate complements are made to those *sample prices* where time series demonstrate clear seasonality.

³⁰ In indexes up until the 1990 base CSPI (i.e., all indexes released before December 1994), when there were no contracted transactions in a given survey period, it was not only the original contract currency prices (hence the relevant contract currency base indexes) that were treated as unchanged from the previous month, but also the exchange rate and hence the prices on a yen basis as well.

³¹ In addition, there are 36 *sample prices* used in compiling the *reference index*, Export Corporate Services Price Index.

<Numbers of Items, Sample Prices and Correspondent Corporations in the CSPI>

Items	Sample prices	B/A	Number of correspondent corporations ³²
(A)	(B)		
110	3,050	27.7	596

8.9. Replacement of Sample Prices

If, for example, one of the services surveyed in compiling *sample prices* ceases to be representative of an *item*,³³ contract terms change, or it becomes necessary to replace a correspondent corporation for some reason, then the relevant *sample prices* are replaced without delay. When replacing *sample prices*, any price differences between the new service and the old service are adjusted as below, so that only the part attributed to pure price changes, and not the part resulting from any changes in service quality, is reflected in the index.³⁴

- (a) If there are no differences in the quality of the service, or if such differences are negligible, any price difference between the new and old services is reflected unadjusted (Replacement by “direct comparison”).³⁵
- (b) If the price difference between the new and old services can be attributed entirely to quality, then the new *sample prices* are adjusted so as to keep the level of the index unchanged (Replacement by “treated as unchanged”).
- (c) If price differences between the new and old services can be attributed to a combination of quality differences and pure price changes, then the new *sample prices* are adjusted so as to reflect only the latter and the index rises or falls accordingly.

8.10. Quality Adjustment of Sample Prices

Defining quality and quantity (units) for services is more difficult than for goods, so that it is far from an easy task to specify what part of the price difference between new and old services is attributable to differences in quality. At the Bank of Japan, the “production cost method” and the “overlap method” are employed, as they are for the CGPI, in order to carry out quality adjustments to the extent that it is

³² Different sections in the same correspondent corporation are counted separately in the number of correspondent corporations.

³³ See footnote 24.

³⁴ If, however, it is difficult to quantitatively compare the old and new products in terms of quality, then there is no viable alternative to treating the price as unchanged.

³⁵ In addition, when a price difference results not from the different quality but the different quantity of a service provided, prices per unit are used to allow direct comparison.

possible to do so.^{36, 37, 38}

Note that for the *item* “Computer rental,” when conducting quality adjustments for rentals of personal computers, the “hedonic regression method” used also in the CGPI *commodity* “Personal computers” is employed.³⁹

9. Index Calculation

9.1. Index Formula

First of all, *sample prices* for every service at the time of the every survey are turned into indexes by setting their price levels in the base year to 100. The formula then used to compile the index is the fix-weighted Laspeyres formula, which is a weighted arithmetic mean based on fixed value-based weights set in the base year.

The fix-weighted Laspeyres formula is:

$$I_{t,0}^L = \frac{\sum p_{t,i} q_{0,i}}{\sum p_{0,i} q_{0,i}} = \sum \frac{p_{t,i}}{p_{0,i}} w_{0,i}$$

$I_{t,0}^L$: price index in period t relative to base period 0, compiled using the fix-weighted Laspeyres

³⁶ The “production cost method” assumes that a price difference attributable to a difference in quality is equivalent to the extra cost required to secure this change in quality. The method therefore specifies “the part of the price change attributable to quality” accordingly. The remaining part of the overall price change is then attributable to “pure price change,” and it is only this part that is reflected in the index. For example, although upgrades are released at regular intervals to improve the quality of prepackaged software, these quality changes are scarcely reflected at all in the software’s selling price. If such selling prices provide the only *sample prices*, then the index will fail to reflect any of the quality improvements contained in the upgrades. For this reason, where the replacement of the *sample prices* of the prepackaged software is implemented because the surveyed software is upgraded, *sample prices* are adjusted for quality using the “production cost method,” with the amount of the adjustment determined by the cost of developing the upgrade in terms of extra cost per software package.

³⁷ Where both old and new services have been provided in tandem over a period of time, and the price difference between them has been stable, then the “overlap method” specifies this price difference as the price difference attributable to a quality difference between the two services (i.e., “the part of the price change attributable to quality”).

³⁸ See the paper “Quality Adjustments of Price Indexes: Wholesale Price Index and Corporate Service Price Index: The Current Situation and Future Implications,” Research and Statistics Department Working Paper Series 01-6, 2000, Bank of Japan.

³⁹ The “hedonic regression method” regards products as a collective entity of characteristics. The price difference due to the quality change between old and new products is calculated by regression, based on the volume of the characteristics. The price differences excluding the quality factor are considered pure price changes and reflected in the CSPI.

formula.

$p_{t,i}$: price of service i in period t .

$p_{0,i}$: price of service i in base period 0.

$w_{0,i}$: value-based weight on service i relative to the total value of services, fixed in base period 0.

$q_{0,i}$: quantity of service i in base period 0.

9.2. Calculation Method

The process of index calculation is as follows. First, *sample prices* are converted into index form (i.e., price in period t / base period price). Each of these *sample price* indexes is then multiplied by its respective weight (i.e., the weight of the surveyed service with which it is associated), and then aggregated to give a weighted *item* index. Dividing the latter by the relevant *item* weight gives the price index for that *item*. This process is repeated to obtain price indexes for higher levels of aggregation, in other words for the *subgroup*, *group*, *major group*, and *all items* indexes. Each index is published to the first decimal place.

The annual average indexes for both calendar and fiscal years are obtained from the simple arithmetic means of the monthly indexes. Seasonally adjusted indexes are not calculated.

10. Publication

10.1. Publication Schedule and Publication Media

Details of the publication schedule are as follows:

Monthly indexes (preliminary figures)	In principle, the 18 th working day of the month following the survey month (the date will be shifted a few working days earlier when the number of working days in the month is small)
Monthly indexes (final figures)	At the time of publication of the next month's "preliminary figures" indexes.
Yearly indexes (calendar year, fiscal year bases)	Calendar year indexes (preliminary figures, final figures) are published along with the monthly indexes for December; the fiscal year indexes along with those for March.

The index publication and accompanying figures in detail are released at 8:50 a.m. on the publication date.

For information regarding the release schedule, “Releases Scheduled for the Next Four Weeks” and “Statistical Releases and Publications Scheduled for the Next Six Months” can be found in the Release Schedule section on the BOJ website, <http://www.boj.or.jp/en/type/schedule/index.htm>.

Releases Scheduled for the Next Four Weeks	Details of upcoming releases for the next four weeks. Revised at the end of each week.
Statistical Releases and Publications Scheduled for the Next Six Months	Details of forthcoming releases for the next six months (April – September, July – December, October – March of the following year and January – June of the following year). Released at the end of March, June, September and December, respectively.

10.2. Media of Publication

The index publication and accompanying figures in detail are released on the “Monthly Releases” and “Long-term Time-series Data” of the CSPI in the Statistics, Research and Studies section of the BOJ website, <http://www.boj.or.jp/en/theme/research/index.htm>.

Published index series are available in the following publications:

Price Indexes Quarterly	Published every quarter (June, September, December, and March).
Bank of Japan Statistics	Published every year (April).
Financial and Economic Statistics Monthly	Published on the 18 th working day of each month.

For any inquiries related to price indexes or other published data, please contact the following department at the Bank of Japan:

- Research and Statistics Department, Price Statistics Section
(03-3279-1111, extension 4073)
- Public Relations Department
(03-3279-1111, extension 4628, 4639)

10.3. Unpublished Indexes

When the need to protect the privacy of a correspondent corporation means that an *item* index is unpublished (see section 8.1), not only that *item* index but also another *item* index from the same *subgroup* is unpublished.

The reason for not publishing this second (otherwise publishable) *item* index is to prevent backwards-calculation of the original unpublished *item* index. If only one *item* index were unpublished, then this unpublished *item* index level could be worked out from the *subgroup* index level and for the other *item* index level. For the same reason, if an unpublished *item* index is from a *subgroup* comprising only that one *item*, not only are that *item* and its *subgroup* indexes unpublished, but another *subgroup* index and another *item* index belonging to this *subgroup* are also unpublished. In ways such as these, the privacy of correspondent corporations is protected, even at the cost of publishing fewer indexes than would otherwise be possible.

However, for *items* where it is not possible to obtain at least three surveyed prices from a few participating correspondent corporations, the relevant *item* index is allowed to be published if agreement can be obtained from the correspondent corporations who provide *sample prices* for that *item*.

Note that, in the CSPI to date (as of August, 2005), there has yet to be an occasion when the above reasons have resulted in an *item* index being unpublished.

10.4. Retroactive Revision of Published Indexes

(a) Scheduled Retroactive Index Revisions

Scheduled retroactive revisions are made to the released indexes twice a year (in April and October, along with the release of the preliminary figures for the March and September indexes) to deal with the following cases: where errors in the indexes have become apparent; where *sample prices* from correspondent corporations were not reported in time to be included in compiling the relevant monthly indexes; where prices are settled *ex post*.⁴⁰ Scheduled retroactive revisions cover, in principle, up to the most recent 18 months of data.

Note, however, that when the final settlement of contract prices occurs too close to the end of the fiscal year or other business term, the retroactive revision covers, exceptionally, more than 18 months' worth of indexes.⁴¹

⁴⁰ *Ex post* settlement of prices refers to cases where contract terms are for several months (quarterly or bi-annual contracts), and prices are only determined after the contract has begun (or indeed after the contract has been terminated). Where "provisional prices," which are accurate up to a point, are available, these are used in the initial compilation and release of the index (for details see section 8.6).

⁴¹ For example, if the prices for a contract whose term runs from January to December of the previous year are finally settled in June (after the April retroactive revision), then the relevant index revisions are made in the following October, at the time of the next scheduled retroactive revision, and in this case they run all the way back to beginning of the contract term in the January of the previous year, i.e., the retroactive revision covers

(b) Unscheduled Retroactive Index Revisions

In addition to the scheduled revisions above, unscheduled revisions, which are implemented with as much immediacy as possible, are made whenever errors that have become apparent in the indexes, or fresh *sample prices* from correspondent corporations (not reported in time to be included in the relevant monthly indexes), are judged to require sufficiently extensive index revisions (see below). The revised indexes are released on the BOJ website and distributed to the press.

Unscheduled retroactive revisions are made when:

- (i) retroactive revisions of *sample prices* result in a change in the *all items* index.
- (ii) retroactive revisions of *sample prices*, although not causing changes in the *all items* index, nevertheless cause changes in the *item*, *subgroup* or *group* indexes that are considered of sufficient magnitude to adversely affect the analysis of researchers making use of the indexes.

11. Linked Index Series

Linked index series revise past indexes according to the new base, creating continuous long-term index series for the use of those who require them. The 2000 Base Linked Index offer retroactively revised *group*, *major group* and *all items* indexes going back as far as January 1985.

Linked indexes are calculated for each index series on a monthly basis, using a “link coefficient” derived from the index of the new and old index levels in the new index base year.⁴² For example, the 2000 Base Linked Index for the period January 1995 – December 1999 is calculated using the following formula:

$$\text{2000 Base Linked Index} = \text{1995 base index} \times \frac{\text{(link coefficient)} \times \text{annual average index in 2000 on the 2000 base (=100)}}{\text{annual average index in 2000 on the 1995 base}}$$

Note that in applying the link formula, classifications from past base years are rearranged to conform with the basic grouping index used in the 2000 base index (*items* selected and their weights, however, remain as in their original base indexes).

more than 18 months’ worth of indexes.

⁴² Annual average indexes for both calendar and fiscal years are calculated as simple arithmetical means of the monthly indexes.

Key Points Attending Past Revisions of the CSPI Base Year

1. Changes in Numbers of CSPI Category Components, Items and Sample Prices

	1985 base CSPI	1990 base CSPI	1995 base CSPI
Major groups	7	8	8
Groups	15	17	17
Subgroups	29	32	39
Items	74	89	102
Sample prices	2,413	2,780	2,963

Note: Based on the basic grouping index. The number of *sample prices* in the 1995 base index is as of the end of November 1999.

2. Key Points Attending Past Revisions of the CSPI Base Year

2.1. Revision to the 1990 Base

- (a) The *group* “Leasing and rental,” which had been a component of the *major group* “Miscellaneous services,” was separated and made into an independent *major group*, in view of its importance in the industrial structure.
- (b) In response to the increased availability of data on service sectors in the *I-O Tables*, two new *groups* and three new *subgroups* were established.
- (c) Four new *items* were established for the new *subgroups* etc. in (b) above.
- (d) With the availability of new sources of data for weights, what had previously been eight *items* were split up into 19 more detailed *items*.

2.2. Revision to the 1995 Base

- (a) With deregulation and technological innovation leading to the emergence of new services and greater diversification of existing services, three new *items* were established in the communications field: “ISDN (Integrated Services Digital Network),” “PHS (Personal Handyphone System) services” and “Access charges.”
- (b) The number of services included as *items* was expanded: among “miscellaneous services,” five new

items were established (“Certified administrative procedures specialist services,” “Certified social insurance and labor specialist services,” etc.), while what had previously been two *items* were split into five *items* (“Attorney services,” “Certified public accountant services,” etc.); and among “Financial services,” three new *items* were established (“Securities issuance and related services,” “Underwriting services,” etc.).

- (c) *Sample prices* were revised. For example, in “Communications” (“Domestic fixed telephone services,” “Cellular phone services,” etc.) efforts were made to get hold of data on discounted prices, in response to the increasingly widespread use of discounted price systems in the communications industry. Also, greater use was made of averaged prices for cases where it was difficult to specify suitable representative services, although averaged prices were only adopted where they wouldn’t compromise the condition that quality should remain fixed (e.g., “Motor vehicle maintenance,” “Temporary employment services,” etc.)
- (d) Changes were made to the way in which exchange rates were reflected when converting *sample prices* for services contracted in foreign currency into yen basis.

Key Points Attending the Revision of the CSPI Base Year to 2000

<Revision of the Selected Items>

1. Focusing on areas which had seen most change, the choice of *items* selected for inclusion in the CSPI was thoroughly reviewed. Specifically, positive steps were taken to include new *items*, to subdivide existing *items*, to expand the coverage of *items*, and to abolish or combine *items* as appropriate, so that the CSPI *items* and category classifications would more accurately reflect recent changes in the services environment. At the same time, by increasing the number of *items* selected, the published indexes were made more representative and their serviceability to users improved.
2. The overall framework of the category classifications was left untouched because the basic data for calculating weights are based on the *year 2000 I-O Tables*, which is based on the 1993 revision of *Japanese Standard Industrial Classifications*.

<Revision of Sample Prices>

3. In addition to expanding *sample prices* to cover the new *items*, the services surveyed when collecting *sample prices* for *items* included in previous indexes were also subject to extensive review. Not only were *sample prices* obtained from new services, but where *items* had been subdivided, the number of surveyed *sample prices* was increased whenever necessary to maintain the statistical accuracy of the published *item* indexes.
4. With the growing diversification of prices, there have been increasing instances where it is difficult to get an accurate picture of actual price conditions. The following measures, which involve obtaining *sample prices* on discounts and so on, were taken in response:
 - (a) For the *group* “Passenger transportation:”
“Zone PEX fares (described in section 8.4) ” for the *item* “International air passenger transportation” and fares limited to specific services and ticket booklets and for the *item* “Domestic air passenger transportation” have been adopted as *sample prices*.
 - (b) For the *groups* “Financial services” and “Overland freight transportation,” and the *major group* “Advertising services:”

Whereas data on standard prices had previously been collected from list prices etc., such *sample prices* were as far as possible replaced by prices that reflect individual discounts and other related business activities and thus give a closer indication of actual price conditions.

5. The principles governing the collection of *sample prices* state that representative services should be specified, and then actual transaction prices should be continuously surveyed, ensuring transaction conditions and partners are fixed. There are, however, cases where it is difficult to collect *sample prices* in accordance with these principles. In such cases, a cautious investigation is made into the

feasibility of employing the averaged price of some of the services included in earlier indexes, to the extent possible without compromising the fixed quality condition. In the 2000 base CSPI, averaged prices were applied in a greater range of cases.

(a) Within the *major group* “Information services:”

For the *item* “Custom software,” averaged monthly rates per person were calculated for a group of development projects with similar contents (i.e., the business field in which the developed software is going to be used is the same.), and these were adopted as *sample prices*.

(b) Within the *major group* “Advertising services,” and the *group* “Financial services:”

Where obtaining actual transaction prices proved problematic, the option of using averaged prices (to the extent possible without compromising the fixed quality condition) was investigated as a next best alternative, and subsequently adopted.

<Efforts Made to Minimize the Reporting Burden for Correspondent Corporations>

6. In order to minimize the reporting burden for correspondent corporations, not only were survey methods adopted that paid significant attention to actual transaction conditions and system compatibility. For some *items*, *sample prices* were obtained from external databases requiring payment of fees in some cases.

For the new *item* “Oceangoing ship chartering services” in the *group* “Marine freight transportation,” *sample prices* were constructed from prices given in a database.

<Changes to the Publication Procedures; Release of Preliminary and Final Figures>

7. Following the revisions detailed above (increase in the number of *sample prices*; increased use of averaged prices), instances when it proves impossible to collect all the *sample prices* before the established publication date are expected to become more common for some *groups*. For this reason the publication procedure for the 2000 base CSPI was changed as follows: (a) the day of publication will continue to be, as it has been up until now, “the 18th working day of the month following the survey month (the release date will be shifted a few working days earlier when the number of working days in the month is small);” however, (b) as is the case for the CGPI, there will henceforth be two releases, a release of “preliminary” figures and that of “final” figures, with the former taking place on the publication day of the month following the survey month, and the latter taking place on the publication day of the month after that.

Relationships among the Different Price Indexes

(1) Relationships among Price Indexes (concept)

	Commodities (goods)		Items (services)
Stage of transactions among corporations	<Imported goods> Raw materials Intermediate materials Final goods	<Domestic goods> <Exported goods> Raw materials Intermediate materials Final goods	<Domestic and Imported services provided to corporations>
Stage of transactions between retailers and individual consumers	<Imported final goods>	<Domestic final goods>	<Domestic and Imported services provided to individual consumers>

(2) Coverage of Each Price Index (based on the I-O Tables)

		Intermediate demand			Final demand			
		Primary Industry	Secondary Industry	Tertiary Industry	Consumption Expenditures of households	-----	Exports	Imports
Intermediate inputs	Primary industry							
	Manufacturing industry							
	Construction industry							
	Electric power, Gas and water supply							
	Services industry							
Gross value added								

(Notes)

Each cell of the tables is shadowed or outlined by the following rule.

	Indicates the CSPI (Corporate Services Price Index)
	Indicates the CGPI (Corporate Goods Price Index)
	Indicates the CPI (Consumer Price Index)

Structure, Classification and Weights

1.Basic Grouping Index

Major group	Group	Subgroup	Item	
Finance and insurance (50.4)	Financial services (37.3)	Financial services (37.3)	Domestic money transmission and receipt (8.0)	
			International money transmission and receipt (1.2)	
			Account services (4.7)	
			Securities brokerage services (8.4)	
			Underwriting services (2.2)	
			Securities selling services (2.5)	
			Securities issuance, transfer and related services (3.3)	
			Financial agency services (1.5)	
			Custody services (0.4)	
			Credit guarantee and related services (5.1)	
	Insurance services (13.1)	Property and casualty insurance services (13.1)	Fire insurance (3.2)	
			Voluntary motor vehicle insurance (7.4)	
			Compulsory motor vehicle insurance (2.0)	
			Marine and other transportation insurance services (0.5)	
Real estate services (72.8)	Real estate rental (72.8)	Office space rental (51.0)	Office space rental (areas around Tokyo) (27.7)	
			Office space rental (areas around Nagoya) (4.1)	
			Office space rental (areas around Osaka) (11.3)	
			Office space rental (other areas) (7.9)	
		Other space rental (21.8)	Sales space rental (12.7)	
			Hotel rental (1.2)	
			Parking space rental (7.9)	
			Transportation (193.3)	Passenger transportation (45.3)
Railroad passenger transportation (excluding <i>Shinkansen</i> bullet train) (12.2)				
Road passenger transportation (11.5)	Route bus (2.4)			
	Chartered bus (1.4)			
	Hired car and taxi (7.7)			
Air passenger transportation (14.3)	International air passenger transportation (5.0)			
	Domestic air passenger transportation (9.3)			
Overland freight transportation (65.5)	Railroad freight transportation (0.9)	Railroad freight (0.9)		
		Road freight transportation (64.6)		
	Door-to-door parcel delivery (8.5)			
	Drops off deliveries in postboxes (0.5)			
	Truckload freight (36.9)			
	Marine freight transportation (44.4)	Ocean freight transportation (20.7)		Freight by special truck (9.4)
Ocean liner (2.4)				
Ocean tramper (12.0)				
Coastal and inland waterway freight transportation (6.1)		Ocean tanker (6.3)		
		Coastal and inland waterway freighter (3.8)		
		Coastal and inland waterway ferry(motor vehicle carrier only) (1.5)		
Ship chartering services (7.2)		Coastal and inland waterway tanker (0.8)		
		Oceangoing ship chartering services (7.2)		
Marine cargo handling (10.4)	Stevedoring services (10.4)			
	Air freight transportation (4.7)	International air freight transportation (4.0)		
Domestic air freight transportation (0.7)				
Warehousing and other transportation services (33.4)	Warehousing and storage (9.1)	International air freight (4.0)		
		Domestic air freight (0.7)		
	Packing for freight (8.6)	Ordinary warehousing and storage (7.2)		
		Refrigerated warehousing and storage (1.9)		
	Toll roads (15.7)	Packing for freight (8.6)		
		National expressways (10.5)		
Communications and broadcasting services (96.3)	Communications services (94.2)	Postal services (14.2)		Urban expressways (3.0)
			Other toll roads (2.2)	
			Letters (8.0)	
		Fixed telecommunications services (52.3)	Postal cards (2.6)	
			Other postal services (3.6)	
			Fixed telephone services (38.3)	
			Leased circuits (8.2)	
		Mobile telecommunications services (21.5)	Fixed data transmission services (5.8)	
			Cellular phone services (20.9)	
		Access charges (6.2)	PHS(Personal Handyphone System)services (0.6)	
	Broadcasting services (2.1)		Access charges (6.2)	
	Broadcasting services (2.1)	Broadcasting services (2.1)	Broadcasting services (2.1)	

(Note)

Figures in parentheses () denotes weights, expressed as one-thousandths of the total value of transactions for the index.

1. Basic Grouping Index (continued)

Major group		Subgroup		Item
Advertising services (74.9)	Advertising services (74.9)	Advertising services by four representative media (51.9)	Newspaper advertising (15.8)	
			Magazine advertising (8.4)	
			Television commercials (25.6)	
			Radio commercials (2.1)	
			Outdoor advertising (2.9)	
		Other advertising services (23.0)	Advertising in traffic facilities (4.5)	
			Leaflets (7.8)	
			Direct mail (5.9)	
			Internet advertising (1.9)	
			Custom software (44.1)	
Information services (106.1)	Information services (106.1)	Software development (61.3)	Prepackaged software (17.2)	
			Data processing services (24.2)	
		Other information services (44.8)	System management and operation services (11.9)	
			Database provision services (4.3)	
			Market research (4.4)	
			Industrial machinery leasing (10.0)	
			Leasing of machinery and equipment for metalworking (1.9)	
			Medical equipment leasing (2.6)	
			Leasing of machinery and equipment for commercial and other services (10.1)	
			Communications equipment leasing (4.5)	
Leasing of machinery for civil engineering and construction (2.7)				
Leasing and rental (93.0)	Leasing and rental (93.0)	Leasing (77.2)	Leasing of computer and related equipment (29.5)	
			Office equipment leasing (6.2)	
			Transportation equipment leasing (9.7)	
			Rental of machinery for civil engineering and construction (9.9)	
			Computer rental (3.7)	
			Motor vehicle rental (2.2)	
			Sewage disposal (7.3)	
			Industrial waste disposal (18.8)	
			Motor vehicle repair and maintenance (33.4)	
			Machinery repair and maintenance (57.7)	
Other services (313.2)	Sewage and industrial waste disposal services (26.1)	Sewage disposal (7.3)	Sewage disposal (7.3)	
			Industrial waste disposal (18.8)	Industrial waste disposal (18.8)
	Motor vehicle and machinery repair and maintenance (91.1)	Motor vehicle repair and maintenance (33.4)	Machinery repair and maintenance (57.7)	Motor vehicle repair and maintenance (33.4)
				Machinery repair and maintenance (57.7)
	Professional services (109.5)	Legal and accounting services (25.2)	Attorney services (3.5)	
			Patent attorney services (4.4)	
			Judicial scrivener services (1.1)	
			Certified public accountant services (3.9)	
			Licensed tax accountant services (12.3)	
		Civil engineering and architectural services (40.4)	Architectural design and contract administration services (21.1)	
			Surface surveying (16.5)	
			Subsurface surveying (2.8)	
			Certified social insurance and labor specialist services (16.8)	
			Certified real estate evaluation services (4.4)	
	Other professional services (43.9)	Certified administrative procedures specialist services (10.7)		
		Certified real estate assessor services for registration (12.0)		
		Building cleaning services (29.1)		
		Facility management services (6.6)		
		Sanitation services (4.7)		
	Other services not included elsewhere (86.5)	Building maintenance (40.4)	Temporary employment agency services (15.5)	
Security services (18.4)				
Temporary employment agency services (15.5)		Security services (18.4)		
		Laundry services (12.2)		
		Ordinary laundry services (5.4)		
			Linen supply (6.8)	

2. Reference Index (Export Corporate Services Price Index)

Major group	Item	
Transportation	Export freight transportation (yen basis)	Ocean freight transportation
		International air freight transportation
	Export freight transportation (contract currency basis)	Ocean freight transportation

(Note)

Figures in parentheses () denotes weights, expressed as one-thousandths of the total value of transactions for the index.

Correspondence between the Classifications of the I-O Tables and of the CSPI (2000 base)

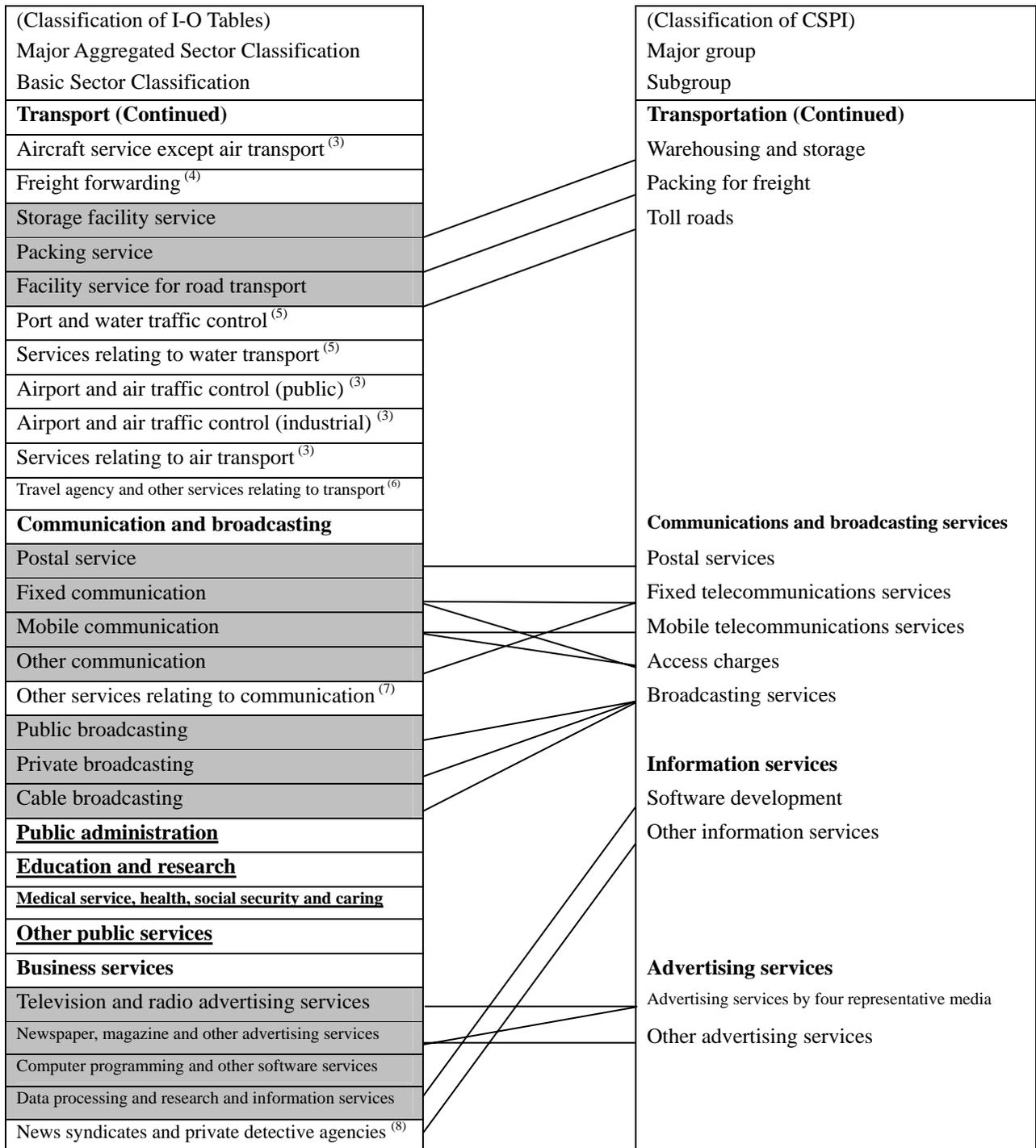
Classifications not included in the CSPI are underlined.

Classifications shadowed are those that correspond to the classification of the CSPI.

(Classification of I-O Tables)	(Classification of CSPI)
Major Aggregated Sector Classification	Major group
Basic Sector Classification	Subgroup
<u>Commerce</u>	
Finance and insurance	Finance and Insurance
<u>Financial service (imputed interest), public</u>	Financial services
<u>Financial service (imputed interest), private</u>	Property and casualty insurance services
Financial service (commission), public	
Financial service (commission), private	
<u>Life insurance</u>	
Non-life insurance	
Real estate	Real estate services
Real estate agencies and managers ⁽¹⁾	Office space rental
Real estate rental service	Other space rental
<u>House rent</u>	
Transport	Transportation
Railway transport (passengers)	Railroad passenger transportation
Railway transport (freight)	Road passenger transportation
Bus transport service	Air passenger transportation
Hired car and taxi transport	Railroad freight transportation
Road freight transport	Road freight transportation
Ocean transport	Ocean freight transportation
Coastal and inland water transport (passenger) ⁽²⁾	Coastal and inland waterway freight transportation
Coastal and inland water transport (freight)	Ship chartering services
Port transport service	Marine cargo handling
International air transport	International air freight transportation
Domestic air transport (passengers)	Domestic air freight transportation
Domestic air transport (freight)	

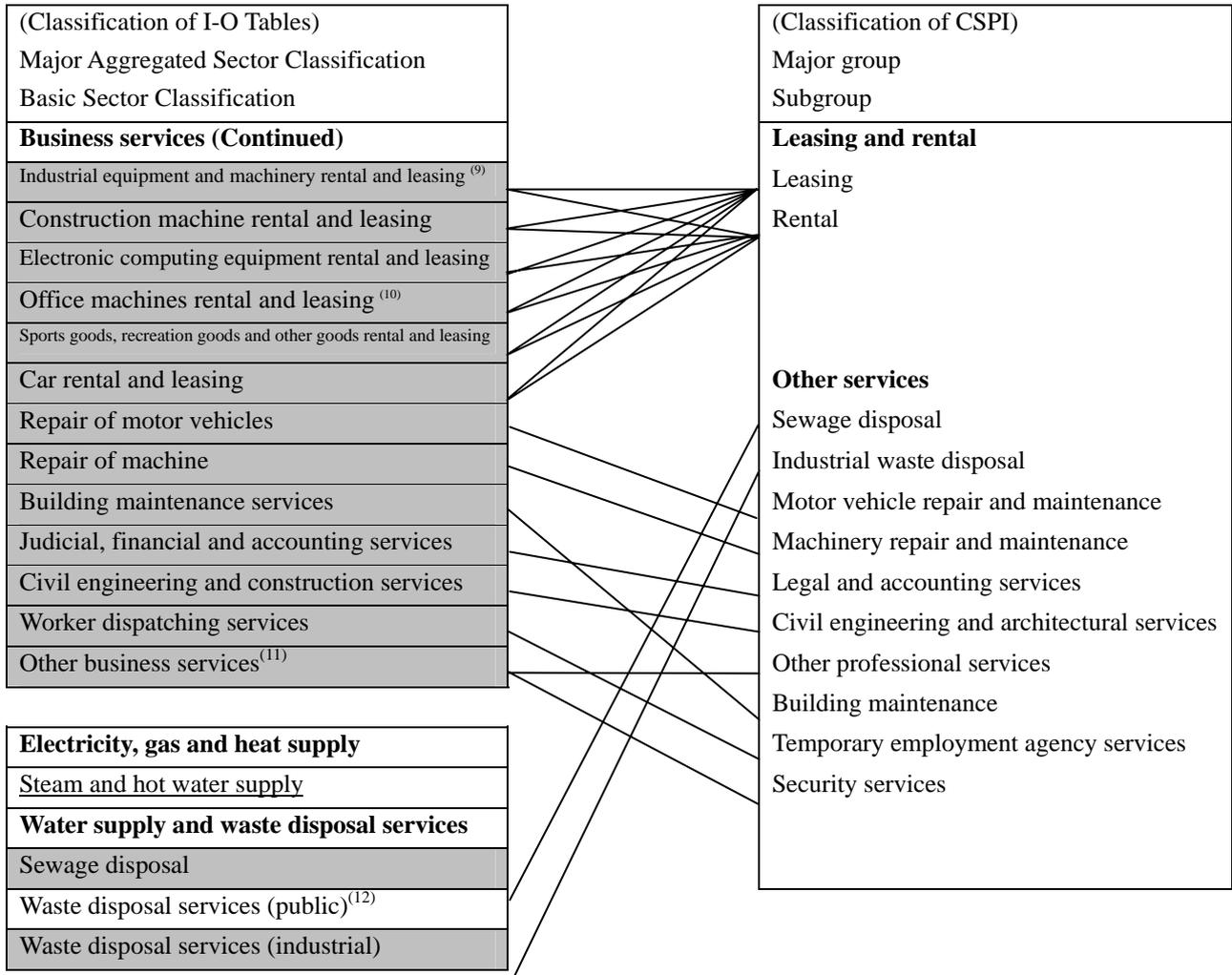
(Notes)

1. Imputed to the *group* "Real estate rental."
2. Imputed to the *group* "Passenger transportation."



(Notes)

3. Imputed to the *group* “Air freight transportation,” the *subgroup* “Air passenger transportation.”
4. Imputed to the *group* “Overland freight transportation,” “Air freight transportation,” the *subgroup* “Ocean freight transportation,” “Coastal and inland waterway freight transportation.”
5. Imputed to the *group* “Passenger transportation,” “Marine freight transportation.”
6. Imputed to the *major group* “Transportation.”
7. Imputed to the *group* “Communications services.”
8. Imputed to the *group* “Information services.”



(Notes)

9. "Construction machinery" is excluded from "Industrial equipment and machinery rental and leasing."
10. "Electronic computing equipment" is excluded from "Office machines rental and leasing."
11. "Other business services" other than those selected as the *subgroup* "Other professional services" and "Security services" is imputed to the *major group* "Other services."
12. Imputed to the *item* "Industrial waste disposal."

(Classification of I-O Tables)
Major Aggregated Sector Classification
Basic Sector Classification
Personal services⁽¹³⁾
Motion picture and video production and supply
Movie theaters
Theater and entertainment facilities
Amusement and recreation facilities
Stadiums and companies of bicycle, horse, motorcar and motorboat races
Sport facility service, public gardens and amusement parks
Theatrical companies
Other amusement and recreation services
General eating and drinking places ⁽¹⁴⁾
Coffee shops
Eating and drinking places for pleasures
Hotel and other lodging places
Cleaning, laundry and dyeing services
Barber shops
Beauty shops
Public baths
Photographic studios
Ceremonial occasions
Miscellaneous repairs, n.e.c.
Places for private lessons
Other personal services

(Classification of CSPI)
Major group
Subgroup
Other services (Continued)
Laundry services

(Notes)

13. "Personal services" other than those selected as the *subgroup* "Laundry services" is imputed to the *major group* "Other services."
14. "Coffee shops" is excluded from "General eating and drinking places."