# Bank of Japan

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**Research and Statistics Department** 

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## **Rebasing the Corporate Goods Price Index to the Base Year 2010**

### **1** Introduction

The Research and Statistics Department of the Bank of Japan (hereinafter, the Bank) has announced the rebasing of the Corporate Goods Price Index (hereinafter, CGPI). This means the base year of the index has been updated from 2005 to 2010. This article presents an overview of the results of this rebasing. The Bank plans to start monthly releases of the 2010 base CGPI (simply referred to as the "new index" hereafter) in lieu of the 2005 base CGPI (simply referred to as the "old index" hereafter) from July 11, when preliminary figures for June and finalized figures for May this year are to be published.

The rebasing of the CGPI, which is conducted once every 5 years, consists of the following revisions: (1) updating the base year; (2) updating the weights assigned to commodities and groups; (3) amending commodities (e.g., by adding new commodities and consolidating, deleting and splitting existing commodity groups); and (4) improving methods for the conduct of price surveys and index compilation. Such revisions improve the reliability of the statistics by, for example, properly reflecting the effects of changes in the industry/trade structure which the Japanese economy has experienced over recent years.

The Bank has successfully speeded up the rebasing process due mainly to the introduction of new IT architecture for index calculations. Consequently, the new index is made available 5 months earlier than the previous rebased index 5 years ago to all public users, including statistical offices of other public entities which use the CGPI as a deflator in calculating real outputs, such as the Cabinet Office responsible for compiling the *National Accounts*.

The basic framework of the new index is explained in the following Section 2. Section 3 then provides a comparison and related analysis of recent developments in the new and old indexes in terms of the index for all commodities.

### 2 Basic Framework of the New Index

### 2.1 Changes in the Number Commodities and Coverage

Starting with adjustments to commodities as part of the revision, Chart 1.1 presents an overview of changes in the number of commodities for the various indexes. The total number of commodities in the new index is 1,286, which is the sum of commodities in the Domestic CGPI, the Export Price Index, and the Import Price Index (hereinafter, EPI and IPI, respectively). The number of commodities has decreased slightly from the 1,338 commodities in the old index, because more commodities were deleted (97) than were newly added (46). In addition, 20 commodities have been split, while 21 have been consolidated. In terms of the value of transactions, however, that of new commodities (JPY7.2 trillion) exceeds that of the deleted commodities (JPY2.3 trillion). The breakdown by number of commodities in the new index is as follows: 822 for the Domestic CGPI (vs. 857 in the old index), 210 for the EPI (vs. 213), and 254 for the IPI (vs. 268).

In principle, commodities are added or deleted based on the value of transactions as of the base year. Taking the Domestic CGPI as an example, first the total value of domestic corporate transactions, JPY225 trillion, was estimated using the 2010 *Census of Manufactures* (Ministry of Economy, Trade and Industry) as the main data source. Then, excluding some transactions unsuitable for price surveys, the total value of transactions to be used as the denominator for weight calculations (hereinafter, the Total Transaction Value for the Index), JPY214 trillion, is determined (Chart 1.2). The threshold for including individual commodities in the index is a transaction value of at least 1/10,000<sup>th</sup> of the Total Transaction Value for the Index, i.e., JPY21.4 billion.

As a general rule, an existing commodity is deleted if it falls below the threshold and a new commodity is added if it exceeds the threshold. However, there are exceptions. Existing commodities for which it is expected to be difficult to continue surveying in the future, for example, because of a rapid decline in domestic production capacity, may be deleted even if their transaction value as of the base year still exceeds the threshold. By contrast, a commodity exceeding the threshold but not previously included because of difficulties in surveying them may be newly added as a result of improved price surveying methods.

The total transaction value of all the commodities included as a percentage of the Total Transaction Value for the Index is referred to as coverage. In the case of the Domestic CGPI being considered here, the coverage is 81.6%, which is a slight increase from 80.6% for the old index (Chart 1.3). The coverage of the EPI and the IPI also increased slightly.

### 2.2 Changes in Group Weights

Next, changes in group weights resulting from the revision are discussed. First, it should be noted that the classification framework has been changed in accordance with the 2007 revision of the Japan Standard Industry Classification (Ministry of Internal Affairs and Communications) (Chart 2). In addition, the estimation methods for transaction values have also been revised for some groups. Such technical changes have a significant impact on the weights assigned to a number of groups.

By subtracting out these technical effects, it is shown that the weights increased for many materials-related groups, which include or are closely related to goods whose prices are market-driven, and that the weights decreased for many capital/durable consumption goods-related groups, particularly machinery (Charts 3 and 4). This observation generally applies to all three major indexes, i.e., the Domestic CGPI, the EPI and the IPI. For example, with regard to the Domestic CGPI, the weights increased for groups such as "Chemicals & related products," "Electric power, gas & water," and "Petroleum & coal products," and they decreased for groups such as "Transportation equipment," "General purpose machinery," "Production machinery," "Business oriented machinery" (previously "General machinery & equipment" and "Precision instruments"), and "Other manufacturing industry products."

One major factor behind these changes in weights is the steep rise in commodity prices resulting from the rapid growth in emerging economies. The market prices of international commodities such as crude petroleum, nonferrous metals, and cereals started rising at the beginning of the 2000s. They dropped back immediately after the Lehman shock in the autumn of 2008, but resumed their upward trend and remained at a high level in 2010. For this reason, the value of transactions in groups which are highly sensitive to the rise in commodity prices increased significantly, thus leading to an increase in their weights, while weights for other groups decreased. In addition,

even in 2010, production of capital/durable consumption goods, which took a severe hit from the Lehman shock, was still below its 2005 levels. This contributed to the decline in the weight of machinery in the Domestic CGPI and the IPI. Meanwhile, the weight of "General purpose, production & business oriented machinery" (previously "General machinery & equipment" and "Precision instruments") in the EPI increased, reflecting the expansion of exports to emerging/commodity-exporting economies.

### 2.3 Stage and Timing of Price Collection

One of the roles of the CGPI lies in its use as a deflator in calculating real values, i.e., in removing price factors from fluctuations in nominal values, such as in the estimation of the *National Accounts* (Cabinet Office) and the *Indices of Industrial Production* (Ministry of Economy, Trade and Industry). To enhance the usefulness of the price indexes as deflators, the standard for the stage and timing of price collection is unified at the time of shipment by producers (such prices are sometimes called "factory gate prices") for the Domestic CGPI, while the standard for the stage and timing of price collection in Japan at the customs clearance stage.

For the Domestic CGPI, the ratio of sample prices that are collected at the producer stage has been increased from 84% for the old index to 91% (Chart 5.1). Meanwhile, regarding the timing of price collection, nearly 80% of sample prices for the Domestic CGPI are collected at the time of shipment, while for the EPI and the IPI slightly more than 50% and about 60% respectively are collected at the time of cargo loading/unloading (Chart 5.2). While all ratios have increased significantly as a result of the revision, it is still necessary to continue the transition from price collection at the time of contract.

#### 2.4 Number of Sample Prices and Overview of Price Survey Methods

Although sample prices are replaced at any appropriate time according to shifts in goods sold in the market, they have been replaced to a significant and unprecedented extent in the course of the 2010 revision (Chart 6.1 and 6.2). The number of sample prices collected for the new index amounts to 8,792 in total (of these, 5,977 are for the Domestic CGPI, 1,277 for the EPI, and 1,538 prices for the IPI). This represent an increase of approximately 650 from the old index. However, because the number of prices collected from external databases has increased by about 800, the number of sample prices of which individual companies bear the reporting burden has actually

declined.

Along with the above-mentioned replacement of sample prices stated above, the ratio of transaction-based prices surveyed has been raised in order to grasp actual price developments in the market. Specifically, for the Domestic CGPI, list prices, which may not necessarily reflect actual transaction prices in the market and accounted for 30% of the total sample prices in the old index, have been mostly replaced by the direct use of prices of repeated transactions, or unit value/markup methods (Chart 6.3). The unit value method surveys the unit value of a stratified group of similar goods. The newly introduced markup method employed here is an extended version of the unit value method and a type of model pricing method which collects (1) the production cost of a specified good and (2) the gross markup (defined by sales/manufacturing cost) of the group of goods as a whole that contains the specified good. Under this method, changes in the market price are estimated using changes in the production cost as well as changes in the gross markup of the group of products by assuming that the gross markup for the group of products is identical to that of the specified product. While this is a rather strong assumption, many list price surveys for made-to-order goods are successfully replaced by the surveys using this method.

#### **3** Comparison of New and Old Indexes and Decomposition of Differences

### 3.1 Comparison of New and Old Domestic CGPIs

This section compares developments in the new indexes with those in the old indexes. The levels of the indexes can be directly compared in the January 2010 to April 2012 period. To facilitate comparison, the base year of the old indexes is modified so that the level in 2010 is equal to 100 (this applies to all three indexes, i.e., the Domestic CGPI, the EPI and the IPI, discussed in this section). The analysis starts with the Domestic CGPI for all commodities (Chart 7.1). As can be seen in the chart, while there are no differences in the basic trends, the new Domestic CGPI is slightly lower than the old Domestic CGPI in most of the period.

Next, comparison of the year-on-year changes shows that the rate of change in the new index has remained consistently below that in the old index since January 2011 (Charts 7.2 and 7.3). Specifically, the rate of year-on-year change in the new index during the January 2011 to April 2012 period, for which a comparison can be made, is on average 0.5 percentage points lower than that in the old index. However, since mid-2011, the difference between the two indexes has narrowed and most recently, in

the period from January to April 2012, the new index was only 0.2 percentage points lower than the old index.

The difference in the year-on-year changes between the new index and the old index can be decomposed into four factors: (1) the weight effect; (2) the reset effect; (3) the commodity amendment effect; and (4) the commodity index revision effect. The weight effect refers to the contribution of changes in the weights assigned to certain commodities, while the reset effect refers to the contribution of resetting the price index for individual commodities to 100 for the new base year. Next, the commodity amendment effect refers to the contribution of changes resulting from the addition or deletion of commodities. Finally, the commodity index revision effect refers to the contribution of changes resulting from revisions of sample prices of existing commodities.

The results of the decomposition indicate that the difference in the year-on-year changes in the new index vis-à-vis the old index from January 2011 to April 2012 period (-0.5 percentage points) is mainly due to the reset effect (-0.67 percentage points), which is partly offset by the weight effect (+0.25 percentage points) (Chart 8.1). On the other hand, the commodity amendment effect (-0.04 percentage points) and the commodity index revision effect (-0.02 percentage points) played only a very minor role. Moreover, looking at the decomposition results on a monthly basis shows that the decline in the reset effect from mid-2011 is also the main driver underlying the decline in the overall difference (Chart 8.2). <sup>1</sup> Turning to the commodity amendment effect and the commodity index revision effect, these made a slight negative contribution in the first half of 2011, which, however, became less pronounced thereafter. As a result, in the most recent period from January to April 2012, the contributions of the reset effect and the weight effect were -0.32 percentage points and +0.11 percentage points, respectively, while the other effects were negligible relative to the overall difference of -0.2 percentage points.

Conducting a similar decomposition for the indexes for major commodity groups shows that for "Information & communications equipment" the negative reset effect was substantial throughout the period (Chart 9.1). The old index for "Information &

<sup>&</sup>lt;sup>1</sup> By definition, the reset and the weight effect have properties which are likely to cause them to offset each other. In particular, when an increase (or decrease) in the weight of a certain commodity is due to an increase (or decrease) in the relative price of that commodity, the reset and the weight effect offset each other completely. On the other hand, if a change in weight is caused by a change in quantity and not in the relative price, the two effects are not likely to offset each other.

communications equipment" had fallen to a very low level because this groups contains a number of commodities whose prices follow a constant downward trend. Since this low index level was reset to 100 again in the new base year, the contribution of the decline in this index on the aggregate new index increased, resulting in the substantial negative reset effect.

Examining the index for "Information & communications equipment" in more detail reveals that the reset effect for "Television receivers" (previously labeled "Color television receivers") was particularly large and that this commodity alone accounts for almost half of the reset effect for "Information and communications equipment" as a whole. Specifically, by 2010, the old index (2005 = 100) for "Television receivers" had fallen to 35.9, so that resetting the index exerted a substantial effect. Moreover, since the index for "Television receivers" continued to fall, the substantial reset effect continued. Another factor is that the magnitude of the reset effect also depends on a commodity's weight, and the weight of "Television receivers" increased considerably from 3.4 to 8.6, reflecting the expansion in demand generated by the Eco Point system in 2010. Apart from "Information & communications equipment", a substantial negative reset effect can also be observed for "Electronic components & devices" and "Electrical machinery & equipment."

Another group for which a relatively large negative reset effect can be seen is "Petroleum & coal products" (Chart 9.2). In contrast with that for "Information & communications equipment," the old index for this commodity group had increased substantially over the years. As a result, since as part of the revision the index level was reset to a lower level, the impact of the year-on-year increases in the index for this commodity group on the new index overall declined, thus giving rise to a negative reset effect. However, as can be seen in the chart, the size of this reset effect has contracted since mid-2011 as the year-on-year increase in this index became smaller. This, in turn, contributed to the decline in the reset effect in the new index for all commodities, thus reducing the difference between the new index and the old index.

On the other hand, a significant positive weight effect can be observed for "Electric power, gas & water" (Chart 9.3). There are two main reasons for this: the direct effect of the increase in the weight of this group as part of the revision; and the considerable rise in the index from mid-2011. Looking at specific individual commodities reveals that "Gas for liberalized sectors" made a substantial contribution to this development.

#### **3.2 Comparison of New and Old EPIs**

The new and old EPIs show very similar trends (Chart 10.1). Comparing the year-on-year changes in the new and the old EPI (on a yen basis) shows that both the size and the direction of the difference between the two change over time, with the change in the new EPI exceeding that in the old EPI in some periods and falling below it in others (Charts 10.2 and 10.3). While the average difference in year-on-year changes for the overall period from January 2011 to April 2012 was +0.2 percentage points, in the most recent period from January to April 2012, it was +0.1 percentage points.

Decomposing the difference into the four effects as above for the Domestic CGPI indicates that most of the weight effect (+1.09 percentage points) is offset by the reset effect (-0.93 percentage points) (Chart 11.1). Furthermore, the commodity amendment (+0.27 percentage points) and commodity index revision (-0.26 percentage points) effects are also relatively large. However, the magnitude of these effects varies over the period (Chart 11.2). In the most recent period from January to April 2012, the overall deviation was +0.1 percentage points, while the reset, weight and commodity index revision effects were -0.45, +0.57, and -0.17 percentage points, respectively.

#### 3.3 Comparison of New and Old IPIs

The difference between the new and the old IPI follows a similar pattern as that between the new and the old Domestic CGPI. That is, there is no difference in the basic trend between the new and the old IPI for all commodities, but in most periods the new IPI falls slightly below the old IPI (Chart 12.1). Comparing the year-on-year changes in the new and the old IPI (yen basis), the former has consistently remained below the latter since January 2011 (Charts 12.2 and 12.3). The average difference in year-on-year changes in the January 2011 to April 2012 period overall is -1.9 percentage points. However, the difference between the two started to shrink from mid-2011 onward and in the most recent period from January to April 2012 was only -0.4 percentage points.

Decomposing into the four effects shows that the difference in year-on-year changes in the new and the old IPI from January 2011 to April 2012 (-1.9 percentage points) is mainly due to the reset effect (-3.37 percentage points), half of which, however, was offset by the weight effect (+1.76 percentage points) (Chart 13.1). The impact of the commodity amendment effect (-0.20 percentage points) and the commodity index revision effect (-0.11 percentage points) are much smaller than those of the reset and the weight effects. Meanwhile, the decline in the difference was mainly caused by the decline in the negative reset effect since mid-2011 (Chart 13.2). As a result, in the most recent period from January to April 2012, the reset and weight effects were -0.56 and +0.08 percentage points, respectively, while the overall difference was -0.4 percentage points.

### **4 Final Remarks**

The Bank is deeply grateful to the companies and industrial associations involved in the collection of price data, to academic experts and economists for valuable comments, and to the staff of statistical offices in the government for their suggestions to the rebasing of the CGPI. The Bank will continue its efforts to improve the statistics, so that they can be understood and utilized by a wider range of the public. Also, the Bank will continue to use the CGPI as one important factor to assess economic and price developments.

			Increase / Decrease	Inc	crease / Decre	ase (Breakdow	/n)
	2005 Base	2010 Base		Newly added	Deleted	Split	Consolidated
Domestic Corporate Goods Price Index	857	822	-35	19	-45	7	-16
Export Price Index	213	210	-3	12	-22	9	-2
Import Price Index	268	254	-14	15	-30	4	-3
Total	1,338	1,286	-52	46	-97	20	-21

### 1.1 Changes in the number of commodities

## 1.2 Total transaction value for the index / Threshold for individual commodities

	Domestic Corporate Goods Price Index	Export Price Index	Import Price Index
Total transaction value (in JPY trillions)	225	67	61
Total transaction value for the index (A)	214	60	57
Total transaction value of included commodities (B)	175	41	44
Coverage (B/A)	81.6%	68.2%	77.9%
Threshold for individual commodities (in JPY billions) (Relative to the total transaction value for the index)	21.4 (1/10,000)	30.1 (5/10,000)	28.5 (5/10,000)

### 1.3 Coverage

### 1.3.1 Domestic Corporate Goods Price Index

## 1.3.2 Export Price Index

### 1.3.3 Import Price Index



# Chart 2. Changes in Classification

## 2.1 Domestic Corporate Goods Price Index

2005 Base		2010 Base
Major group		Major group
Group		Group
Manufacturing industry products		Manufacturing industry products
Processed foodstuffs		Food, beverages, tobacco & feedstuffs
Textile products		/ Textile products
Lumber & wood products		/ Lumber & wood products
Pulp, paper & related products		/ Pulp, paper & related products
Chemicals & related products	/	Chemicals & related products
Plastic products	/	Petroleum & coal products
Petroleum & coal products		Plastic products
Ceramic, stone & clay products		Ceramic, stone & clay products
Iron & steel		Iron & steel
Nonferrous metals		Nonferrous metals
Metal products		Metal products
General machinery & equipment		General purpose machinery
Electrical machinery & equipment		Production machinery
Information & communications equipment		Business oriented machinery
Electronic components & devices		Electronic components & devices
Transportation equipment	$\square$	Electrical machinery & equipment
Precision instruments	× `	Information & communications equipment
Other manufacturing industry products		Transportation equipment
Agriculture, forestry & fishery products		Other manufacturing industry products
Agriculture, forestry & fishery products		Agriculture, forestry & fishery products
Minerals		Agriculture, forestry & fishery products
Minerals		Minerals
Electric power, gas & water		Minerals
Electric power, gas & water		Electric power, gas & water
Scrap & waste		Electric power, gas & water
Scrap & waste		Scrap & waste
		Scrap & waste

## 2.2 Export Price Index

2005 Base

Group	Group
Textiles	Textiles
Chemicals & related products	Chemicals & related products
Metals & related products	Metals & related products
General machinery & equipment	General purpose, production & business oriented machinery
Electric & electronic products	Electric & electronic products
Transportation equipment	Transportation equipment
Precision instruments	→ Other primary products & manufactured goods
Other primary products & manufactured goods	

## 2.3 Import Price Index

2005 Base	2010 Base
Group	Group
Foodstuffs & feedstuffs	Foodstuffs & feedstuffs
Textiles	Textiles
Metals & related products	Metals & related products
Wood, lumber & related products	Wood, lumber & related products
Petroleum, coal & natural gas	Petroleum, coal & natural gas
Chemicals & related products	Chemicals & related products
General machinery & equipment	General purpose, production & business oriented machinery
Electric & electronic products	Electric & electronic products
Transportation equipment	Transportation equipment
Precision instruments	Other primary products & manufactured goods
Other primary products & manufactured goods	

#### 2010 Base

## Chart 3. Changes in Group Weights (DCGPI)

### 3.1 Domestic Corporate Goods Price Index

М	ajor group	Weights (rate per thousand) / Difference (rate per thousand points)				
	Group	2005 Base	2010 Base	Difference	Net difference	
To	otal (All commodities)	1,000.0	1,000.0	0.0	0.0	
М	anufacturing industry products	918.8	902.5	-16.3	-6.8	
	Food, beverages, tobacco & feedstuffs	114.5	137.5	+23.0	+14.4	
	Textile products	13.1	10.9	-2.2	-2.4	
	Lumber & wood products	10.2	8.2	-2.0	-1.9	
	Pulp, paper & related products	28.5	29.1	+0.6	+1.7	
	Chemicals & related products	85.2	92.1	+6.9	+11.4	
	Petroleum & coal products	53.8	57.4	+3.6	+8.1	
	Plastic products	38.7	38.5	-0.2	-0.7	
	Ceramic, stone & clay products	25.9	23.7	-2.2	-1.2	
	Iron & steel	52.6	56.6	+4.0	+5.8	
	Nonferrous metals	22.5	27.1	+4.6	+5.5	
	Metal products	37.6	37.9	+0.3	-3.5	
	General purpose machinery	—	25.7			
	Production machinery	—	30.8		-15.2	
	Business oriented machinery	—	19.2	-43.3		
	General machinery & equipment (2005 Base)	108.4	—			
	Precision instruments (2005 Base)	10.6	—			
	Electronic components & devices	34.3	31.0	-3.3	-3.0	
	Electrical machinery & equipment	53.3	49.0	-4.3	+1.5	
	Information & communications equipment	41.4	40.4	-1.0	-3.3	
	Transportation equipment	124.8	136.4	+11.6	-13.1	
	Other manufacturing industry products	63.4	51.0	-12.4	-10.9	
Agriculture, forestry & fishery products		25.9	33.9	+8.0	-3.5	
М	inerals	3.9	4.2	+0.3	+0.4	
El	ectric power, gas & water	46.5	52.7	+6.2	+7.9	
Sc	rap & waste	4.9	6.7	+1.8	+2.0	

Notes:

1. The difference in the weights of "General purpose machinery," "Production machinery," and "Business oriented machinery" is calculated as the total difference between the weights of the three groups in 2010 and the weights of the two groups "General machinery & equipment (2005 Base)" and "Precision instruments (2005 Base)" in 2005.

2. The net difference is calculated by removing the effect due to the changes in the classification and the method used to estimate transaction values.

# Chart 4. Changes in Group Weights (EPI / IPI)

## 4.1 Export Price Index

	Weights (rate per thousand) / Difference (rate per thousand points)				
Group	2005 Base	2010 Base	Difference	Net difference	
Total (All commodities)	1,000.0	1,000.0	0.0	0.0	
Textiles	14.7	12.5	-2.2	-2.2	
Chemicals & related products	87.2	95.4	+8.2	+9.1	
Metals & related products	88.5	118.2	+29.7	+30.8	
General purpose, production & business oriented machinery	_	192.0			
General machinery & equipment (2005 Base)	195.4		-21.9	+14.4	
Precision instruments (2005 Base)	18.5				
Electric & electronic products	294.4	232.9	-61.5	-59.4	
Transportation equipment	223.7	240.6	+16.9	-13.3	
Other primary products & manufactured goods	77.6	108.4	+30.8	+20.6	

### 4.2 Import Price Index

	Weights (rate per thousand) / Difference (rate per thousand points)				
Group	2005 Base	2010 Base	Difference	Net difference	
Total (All commodities)	1,000.0	1,000.0	0.0	0.0	
Foodstuffs & feedstuffs	82.3	75.8	-6.5	-6.4	
Textiles	60.5	53.5	-7.0	-7.2	
Metals & related products	94.8	117.1	+22.3	+21.8	
Wood, lumber & related products	23.2	16.5	-6.7	-7.1	
Petroleum, coal & natural gas	275.5	305.4	+29.9	+28.6	
Chemicals & related products	69.0	83.3	+14.3	+13.6	
General purpose, production & business oriented machinery	_	53.9		-4.3	
General machinery & equipment (2005 Base)	51.8		-19.8		
Precision instruments (2005 Base)	21.9				
Electric & electronic products	205.4	184.3	-21.1	-21.9	
Transportation equipment	38.6	34.1	-4.5	-10.7	
Other primary products & manufactured goods	77.0	76.1	-0.9	-6.4	

Notes:

1. The difference in the weight of "General purpose, production & business oriented machinery" is calculated as the difference between the weight of the group in 2010 and the weights of the two groups "General machinery & equipment (2005 Base)" and "Precision instruments (2005 Base)" in 2005.

2. The net difference is calculated by removing the effect due to the changes in the classification and the method used to estimate transaction values.



## 5.1 Stage of price collection for Domestic Corporate Goods Price Index

## 5.2 Time of price collection for the three price indexes

## 5.2.1 Domestic Corporate Goods Price Index



#### 5.2.2 Export Price Index

5.2.3 Import Price Index



70% 80% 0% 10% 20% 30% 40% 50% 60% 90% 100% 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100% Notes:

1. The figures show the share of sample prices on a weight basis. Figures for 2005 Base are as of July 2007, while those for 2010 base are as of April 2012.

- 2. Chart 5.1 excludes the sample prices in the commodity group "Ethical pharmaceutical products," for which external drugs price data are used.
- 3. "Other" in Chart 5.2 includes: For the Domestic Corporate Goods Price Index: At the time of payment being settled For the Export Price Index : At the time of shipment, cargo unloading, and payment being settled For the Import Price Index : At the time of shipment, cargo loading, and payment being settled

# Chart 6. Number of Sample Prices and Types of Pricing Methods



### 6.1 Changes in the number of sample prices

6.2 Comparison of the number of sample prices for the 2010 Base and the 2005 Base Index

	2005 Base	2010 Base	Difference
Domestic Corporate Goods Price Index	5,435	5,977	+542
Export Price Index	1,155	1,277	+122
Import Price Index	1,551	1,538	-13
Total	8,141	8,792	+651

6.3 Pricing methods (Domestic Corporate Goods Price Index)

Pricing Method	Number of Sample Prices (Component Ratio)					
Frienig Method	2005 Base		2010 H	Difference		
Direct use of prices of repeated transactions	2,215	(41%)	2,965	(56%)	+15%	
Unit value method	877	(16%)	1,661	(31%)	+15%	
Markup method	0	_	145	(3%)	+ 3%	
List prices	1,588	(30%)	190	( 3%)	-27%	
Other	705	(13%)	368	(7%)	- 6%	

Notes:

- 1. In Chart 6.2, figures for the 2005 Base Index are as of July 2007, while those for the 2010 Base Index are as of April 2012.
- In Chart 6.3, figures for the 2005 Base Index are as of December 2009, while those for the 2010 Base Index are as of April 2012. The component ratios are based on the number of sample prices (excluding the sample prices in the commodity group "Ethical pharmaceutical products").

"Other" in Chart 6.3 includes Model pricing method, etc.

## Chart 7. 2010 and 2005 Base Domestic Corporate Goods Price Indexes

## 7.1 Level (All commodities)



## 7.2 Year-on-year changes (All commodities)



## 7.3 Comparison of year-on-year changes

		2010 Base Year-on-year change, %	2005 Base Year-on-year change, %	Difference, Percentage points
CY 2011		1.5	2.0	-0.5
2011 2012	Q2 Q3 Q4 Q1	1.8 2.2 1.1 0.3	2.5 2.6 1.5 0.5	-0.7 -0.4 -0.4 -0.2
2012	Jan. Feb. Mar. Apr.	0.3 0.4 0.3 -0.4	0.5 0.6 0.5 -0.3	-0.2 -0.2 -0.2 -0.2 -0.1

## Chart 8. DCGPI : Contributions to the Difference in Year-on-Year Changes

8.1 Difference in year-on-year changes between the 2010 Base and the 2005 Base Index

January 2011-April 2012

	-			Percentage points
Difference in y-on-y changes	Weight effect	Reset effect	Commodities amendment effect	Commodities index revision effect
-0.5	0.25	-0.67	-0.04	-0.02

## January 2012-April 2012

				i ereemage points
Difference in y-on-y changes	Weight effect	Reset effect	Commodities amendment effect	Commodities index revision effect
-0.2	0.11	-0.32	0.05	-0.03

### 8.2 Contributions to the difference in year-on-year changes by factor



Difference in year-on-year changes, Percentage points

Note:

The figures in the upper panel of Chart 8.1 represent the simple average of the monthly figures during the January 2011 to April 2012 period, while the figures in the lower panel represent the simple average of the monthly figures during the January 2012 to April 2012 period.

Percentage points

## Chart 9. DCGPI : Contributions to the Difference in Year-on-year Changes by Groups



#### 9.1 Information & communications equipment (Weight: 41.4→40.4, the old index in CY 2010: 68.9)



9.3 Electric power, gas & water (Weight: 46.5→52.7, the old index in CY 2010: 104.9)





10.1 Level (All commodities)



10.2 Year-on-year changes (All commodities, Yen basis)



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10.5	Com	puison	<b>U</b> 1	your on	jour	enanges

		2010 Base Year-on-year change, %	2005 Base Year-on-year change, %	Difference, Percentage points
CY 2011		-2.2	-2.4	0.2
2011 2012	Q2 Q3 Q4 Q1	-2.6 -0.8 -2.7 -2.8	-2.6 -1.4 -3.4 -2.9	0.0 0.6 0.7 0.1
2012	Jan. Feb. Mar. Apr.	-4.7 -3.6 -0.3 -2.9	-5.2 -3.6 0.1 -3.0	0.5 0.0 -0.4 0.1

## Chart 11. EPI: Contributions to the Difference in Year-on-Year Changes

11.1 Difference in year-on-year changes between the 2010 Base and the 2005 Base Index

January 2011-April 2012

	012			Percentage points
Difference in y-on-y changes	Weight effect	Reset effect	Commodities amendment effect	Commodities index revision effect
0.2	1.09	-0.93	0.27	-0.26

January 2012-April 2012

Percentage po					
Difference in y-on-y changes	Weight effect	Reset effect	Commodities amendment effect	Commodities index revision effect	
0.1	0.57	-0.45	0.10	-0.17	

11.2 Contributions to the difference in year-on-year changes by factor



Note:

The figures in the upper panel of Chart 11.1 represent the simple average of the monthly figures during the January 2011 to April 2012 period, while the figures in the lower panel represent the simple average of the monthly figures during the January 2012 to April 2012 period.

# Chart 12. 2010 and 2005 Base Import Price Indexes

12.1 Level (All commodities)







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12.5	COIII	parison	UI.	ycar-on-ycar	unanges

		2010 Base Year-on-year change, %	2005 Base Year-on-year change, %	Difference, Percentage points
CY 2011		7.5	10.0	-2.5
2011 2012	Q2 Q3 Q4 Q1	7.4 10.2 7.7 3.4	10.4 12.4 9.1 3.9	-3.0 -2.2 -1.4 -0.5
2012	Jan. Feb. Mar. Apr.	1.7 2.0 6.2 1.3	2.1 2.4 7.0 1.3	-0.4 -0.4 -0.8 0.0

## Chart 13. IPI : Contributions to the Difference in Year-on-Year Changes

13.1 Difference in year-on-year changes between the 2010 Base and the 2005 Base Index

January 2011-April 2012

				Percentage points
Difference in y-on-y changes	Weight effect	Reset effect	Commodities amendment effect	Commodities index revision effect
-1.9	1.76	-3.37	-0.20	-0.11

### January 2012-April 2012

	-			Percentage points
Difference in y-on-y changes	Weight effect	Reset effect	Commodities amendment effect	Commodities index revision effect
-0.4	0.08	-0.56	-0.04	0.12

13.2 Contributions to the difference in year-on-year changes by factor



Difference in year-on-year changes, Percentage points

Note:

The figures in the upper panel of Chart 13.1 represent the simple average of the monthly figures during the January 2011 to April 2012 period, while the figures in the lower panel represent the simple average of the monthly figures during the January 2012 to April 2012 period.