

# Standard Revision for Services Producer Price Index



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## Item Index Revision Effect Boosting SPPI

The Services Producer Price Index (SPPI) measures the price of services traded between businesses. The standard year has recently been revised to 2015, and release of the index began from June 25, 2019.

As shown in *Chart 1*, when comparing the year-on-year rise in the Weighted Average Index (WAI) before and after the revision, many months saw an upward swing by 0.1 to 0.3 points from the latter half of 2017 to 2018. According to materials from the Bank of Japan, among the average upward swing of 0.07 points, the Item Index revision effect is most significant. To be more concrete, revisions to the surveyed price structure in response to digitalization has contributed to the boost in “Information and communications” and in “Advertising services”.

In a standard revision, there are boosts and push-downs that come along with revisions to the weights of individual items, and there are also boosts and push-downs due to changing the index standard of individual items to the new standard period (this time to 2015). In this round of standard revisions, both the weights effect and the resetting effect have worked to push down the index under the new standard.

Weights are calculated using values of transactions between businesses that correspond to domestic trades. As basic data, the transaction value deducted for import-corresponding transactions is used from the Business Transaction Value of the Service Sector (Intermediate Demand Sector + Gross Domestic Fixed Capital Formation + Consumption Expenditure Outside Households) in the *Extended Input-Output Table (2015)* published by the Ministry of Economy, Trade and Industry. In comparing the weights for the standard years 2010 and 2015, weights for real estate and lease and rentals have gone up (*Table*). It is said to reflect an increase in the value of transactions of construction machinery rentals and temporary materials rentals

as a result of the increase in real estate transactions and the rise in construction and reconstruction demand.

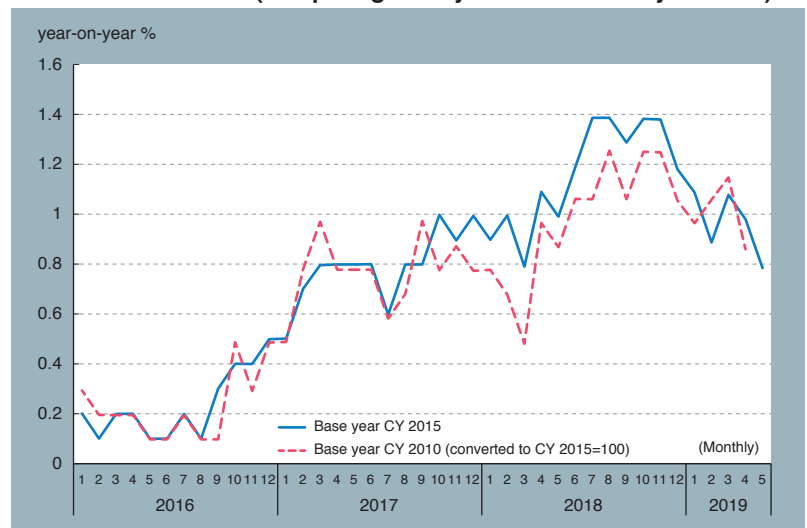
## Lead Service Changes with Digitalization

In further looking at the content, the leader has changed with digitalization. Top of the list is “Information and communications” and “Advertising services”. While weights have gone up for “Internet-associated services” such as portal sites and server management or Internet use management, weights for traditional services such as “Software development” have been declining.

In “Advertising services”, while weights for existing media such as newspapers, magazines and television have gone down, Internet advertisements have gone up. As previously stated, surveyed prices were expanded quite extensively to include many more. To be more concrete, massive data on individual purchases and browsing history was analyzed, and survey prices such as “programmatic advertising” which distributes effective advertising were employed. For newspaper

CHART 1

### Trend in SPPI (comparing base year 2015 & base year 2010)



Source: “Services Producer Price Index”, Bank of Japan

and television advertisements, the simple assumption that the quality of advertisement is directly proportional to the number of sales has been dropped, and it has become more refined.

Moreover, aside from the WAI, the Wholesale Service Price Index (WSPI) and Intellectual Property License (IPL) have been calculated using a new Reference Index. The WSPI is a wholesale service price per one unit of transaction volume of merchandise, or in other words the margin added on to merchandise that has been purchased. It is used to materialize added-value that the wholesale business creates. While it is important in GDP estimations, it has not been the subject of surveys for the SPPI in the past. The IPL is also in response to research and development investment now being included in Capital Investment for GDP under the current standard.

### Expansion Increase to Pause

As such, the SPPI has transitioned to a new standard, and its rate of increase seems to be shrinking since it peaked around the end of 2018. Comparing the year-on-year rise for the period average for January to May 2019 and 2018, price increases in real estate, transport and postal services, information and communications have slowed (*Chart 2*). In real estate, real estate brokerage and management have shrunk from 2.2% increase in 2018 to close to zero for the period average for January to May 2019. In transport and postal services, the increase for marine cargo transportation and air cargo transportation has shrunk sharply. This is thought to reflect the slowdown in economic activities since the latter half of 2018. In addition, in information and communications, its content communications, especially mobile telecommunications, such as cell-phones, and information services have seen a drop. Internet-related services have seen an expansion in the rate of increase, but this has not been enough to cover the drop.

**Note:** This article is written based on the information that was available as of July 16, 2019.

TABLE

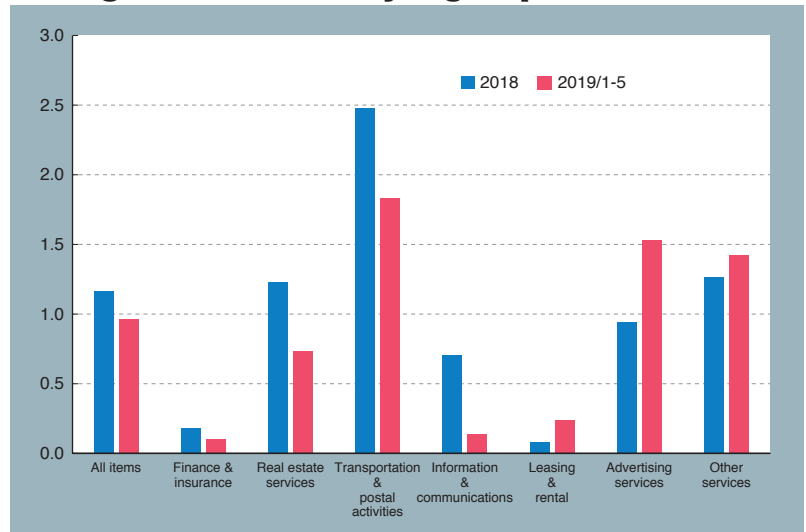
### Weights of industries in the index of SPPI

Weight (Maker Groups)	Base year		Balance
	2010	2015	2010→15
Finance & insurance	44.3	48.3	4.0
Real estate services	72.1	94.5	22.4
Transportation & postal activities	186.7	158	-28.7
Information & communications	237.8	228.3	-9.5
Leasing & rental	60.7	79.2	18.5
Advertising services	63.4	49.2	-14.2
Other services	335	342.5	7.5

Source: "Services Producer Price Index", Bank of Japan

CHART 2

### Change in SPPI of major groups



Source: "Services Producer Price Index", Bank of Japan

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## ECONOMIC INDICATORS FOR JAPAN

Calendar year, Quarter and Month	Real GDP		Nominal GDP		IIP rate of increase over previous year/term (month) (%)	CPI (All terms, less fresh food) rate of increase over previous year/the same term (month) of the previous year (%)
	Amount (trillion yen)	Rate of increase over previous year/term (%)	Amount (trillion yen)	Rate of increase over previous year/term (%)		
2010	492.0	4.2	500.4	2.2	15.6	-1.0
2011	491.5	-0.1	491.4	-1.8	-2.8	-0.3
2012	498.8	1.5	495.0	0.7	0.6	-0.1
2013	508.8	2.0	503.2	1.7	-0.3	0.4
2014	510.7	0.4	513.9	2.1	2.0	2.6
2015	516.9	1.2	531.3	3.4	-1.2	0.5
2016	520.1	0.6	536.0	0.9	0.0	-0.3
2017	530.2	1.9	545.1	1.7	3.1	0.5
2018	534.3	0.8	548.9	0.7	1.1	0.9
2018/3rd Qtr.	533.2	-0.5	547.4	-0.4	-0.7	0.9
4th Qtr.	535.3	0.4	549.7	0.4	1.4	0.9
2019/1st Qtr.	539.1	0.7	555.4	1.0	-2.5	0.8
2nd Qtr.	541.5	0.4	557.8	0.4	0.6	0.8
2018/Nov.	—	—	—	—	-0.9	0.9
Dec.	—	—	—	—	0.1	0.7
2019/Jan.	—	—	—	—	-2.5	0.8
Feb.	—	—	—	—	0.7	0.7
March	—	—	—	—	-0.6	0.8
April	—	—	—	—	0.6	0.9
May	—	—	—	—	2.0	0.8
June	—	—	—	—	-3.3	0.6
Sources	"SNA (National Accounts of Japan)", Cabinet Office				"Indices of Industrial Production", Ministry of Economy, Trade and Industry	"Consumer Price Index", Statistics Bureau, Ministry of Internal Affairs and Communications

Calendar year, Quarter and Month	Foreign Trade Statistics									
	Exports amount (trillion yen)	Exports rate of increase over previous year/ the same term (month) of the previous year (%)	Imports amount (trillion yen)	Imports rate of increase over previous year/ the same term (month) of the previous year (%)	Exports amount to US (trillion yen)	Exports to US rate of increase over previous year/ the same term (month) of the previous year (%)	Imports amount from US (trillion yen)	Imports from US rate of increase over previous year/ the same term (month) of the previous year (%)	Exports amount to EU (trillion yen)	Exports to EU rate of increase over previous year/ the same term (month) of the previous year (%)
2010	67.4	24.4	60.8	18.0	10.4	18.8	5.9	7.2	7.6	12.8
2011	65.5	-2.7	68.1	12.1	10.0	-3.4	5.9	0.3	7.6	0.0
2012	63.7	-2.7	70.7	3.8	11.2	11.7	6.1	2.5	6.5	-14.7
2013	69.8	9.5	81.2	14.9	12.9	15.6	6.8	12.0	7.0	7.7
2014	73.1	4.8	85.9	5.7	13.6	5.6	7.5	10.7	7.6	8.4
2015	75.6	3.4	78.4	-8.7	15.2	11.5	8.1	6.9	8.0	5.3
2016	70.0	-7.4	66.0	-15.8	14.1	-7.1	7.3	-9.2	8.0	-0.0
2017	78.3	11.8	75.4	14.1	15.1	6.9	8.1	10.5	8.7	8.5
2018	81.5	4.1	82.7	9.7	15.5	2.4	9.0	11.4	9.2	6.4
2018/3rd Qtr.	20.2	2.9	20.7	12.4	3.8	-0.4	2.2	11.9	2.2	2.7
4th Qtr.	21.2	1.3	22.4	11.2	4.3	4.8	2.5	21.7	2.4	5.1
2019/1st Qtr.	19.2	-3.9	19.7	-2.0	3.9	4.3	2.2	4.2	2.4	2.6
2nd Qtr.	19.1	-5.6	19.4	-0.1	4.0	6.0	2.2	-0.6	2.2	-5.4
2018/Nov.	6.9	0.1	7.7	12.5	1.4	1.6	0.8	8.1	0.7	3.8
Dec.	7.0	-3.9	7.1	1.9	1.4	1.6	0.9	23.9	0.8	3.9
2019/Jan.	5.6	-8.4	7.0	-0.8	1.1	6.9	0.8	7.5	0.7	-2.5
Feb.	6.4	-1.2	6.1	-6.5	1.3	2.0	0.7	5.6	0.8	2.5
March	7.2	-2.4	6.7	1.2	1.4	4.4	0.7	-0.1	0.9	7.3
April	6.7	-2.4	6.6	6.5	1.4	9.6	0.7	2.3	0.8	-2.6
May	5.8	-7.8	6.8	-1.4	1.2	3.3	0.8	-1.3	0.6	-7.1
June	6.6	-6.6	6.0	-5.2	1.4	4.9	0.7	-2.4	0.7	-6.7
Sources	"Trade Statistics of Japan", Ministry of Finance									

## ECONOMIC INDICATORS FOR JAPAN

Calendar year, Quarter and Month	Cash salary amount rate of increase over previous year/ the same term (month) of the previous year (%)	Active job openings-to-applicants ratio (time(s))	Unemployment rate (%)	M2 rate of increase over previous year/ the same term (month) of the previous year (%)	Balance of payments		Yen/\$ rate (averaged during the term)
					Trade balance (trillion yen)	Current balance (trillion yen)	
2010	0.5	0.52	5.1	2.8	9.5	19.4	87.8
2011	-0.2	0.65	4.6	2.7	-0.3	10.4	79.8
2012	-0.9	0.80	4.3	2.5	-4.3	4.8	79.8
2013	-0.2	0.93	4.0	3.6	-8.8	4.5	97.6
2014	0.5	1.09	3.6	3.4	-10.5	3.9	105.8
2015	0.1	1.20	3.4	3.6	-0.9	16.5	121.0
2016	0.6	1.36	3.1	3.4	5.5	21.4	108.8
2017	0.4	1.50	2.8	4.0	4.9	22.6	112.2
2018	1.4	1.61	2.4	2.9	1.2	19.2	110.4
2018/3rd Qtr.	0.9	1.62	2.4	2.9	0.1	5.7	111.5
4th Qtr.	1.5	1.62	2.4	2.5	-0.6	2.6	112.9
2019/1st Qtr.	-0.8	1.63	2.5	2.3	0.2	6.0	110.2
2nd Qtr.	-0.1	1.62	2.4	2.5	0.0	4.5	109.8
2018/Nov.	1.7	1.63	2.5	2.3	-0.5	0.8	113.4
Dec.	1.5	1.63	2.4	2.4	0.2	0.5	112.4
2019/Jan.	-0.6	1.63	2.5	2.3	-1.0	0.6	109.0
Feb.	-0.7	1.63	2.3	2.3	0.5	2.6	110.4
March	-1.3	1.63	2.5	2.4	0.7	2.8	111.2
April	-0.3	1.63	2.4	2.5	-0.1	1.7	111.6
May	-0.5	1.62	2.4	2.6	-0.7	1.6	109.8
June	0.4	1.61	2.3	2.3	0.8	1.2	108.1
Sources	"Monthly Labour Survey", Ministry of Health, Labour and Welfare	"Employment Referrals for General Workers", Ministry of Health, Labour and Welfare	"Labour Force Survey", Statistics Bureau, Ministry of Internal Affairs and Communications	"Money Stock", Bank of Japan	"Balance of Payments", Ministry of Finance		Bank of Japan

Calendar year, Quarter and Month	Foreign Trade Statistics									
	Imports amount from EU (trillion yen)	Imports from EU rate of increase over previous year/ the same term (month) of the previous year (%)	Exports amount to Asia (excluding China) (trillion yen)	Exports to Asia (excluding China) rate of increase over previous year/ the same term (month) of the previous year (%)	Imports amount from Asia (excluding China) (trillion yen)	Imports from Asia (excluding China) rate of increase over previous year/ the same term (month) of the previous year (%)	Exports amount to China (trillion yen)	Exports to China rate of increase over previous year/ the same term (month) of the previous year (%)	Imports amount from China (trillion yen)	Imports from China rate of increase over previous year/ the same term (month) of the previous year (%)
2010	5.8	5.5	24.7	29.5	14.1	22.0	13.1	27.8	13.4	17.3
2011	6.4	10.1	23.8	-3.9	15.7	11.7	12.9	-1.4	14.6	9.2
2012	6.6	3.6	23.3	-1.8	16.3	3.3	11.5	-10.8	15.0	2.7
2013	7.6	15.2	25.2	8.1	18.3	12.6	12.6	9.7	17.7	17.4
2014	8.2	6.8	26.1	3.5	19.4	6.2	13.4	6.0	19.2	8.6
2015	8.6	5.6	27.1	3.7	18.9	-2.6	13.2	-1.2	19.4	1.3
2016	8.2	-5.5	24.7	-8.7	16.2	-14.5	12.4	-6.5	17.0	-12.4
2017	8.8	7.4	28.0	13.3	18.6	14.8	14.9	20.5	18.5	8.5
2018	9.7	11.0	28.8	2.9	20.0	7.8	15.9	6.8	19.2	4.0
2018/3rd Qtr.	2.5	11.7	7.3	4.0	4.9	5.6	4.0	7.2	4.8	5.7
4th Qtr.	2.6	9.1	7.4	-1.5	5.3	8.7	4.3	0.5	5.4	4.5
2019/1st Qtr.	2.4	-1.1	6.6	-6.3	4.9	-4.1	3.4	-7.5	4.6	0.2
2nd Qtr.	2.4	5.2	6.6	-7.4	4.6	-3.1	3.6	-8.7	4.5	-0.1
2018/Nov.	0.9	15.1	2.4	-3.2	1.8	7.2	1.4	0.3	1.9	4.2
Dec.	0.8	2.0	2.4	-6.9	1.7	0.8	1.4	-7.0	1.6	-6.3
2019/Jan.	0.8	-3.2	2.0	-10.9	1.6	-4.9	1.0	-17.4	1.8	5.7
Feb.	0.7	0.5	2.2	-5.2	1.6	-5.8	1.1	5.6	1.3	-15.8
March	0.8	-0.5	2.5	-3.4	1.7	-1.6	1.3	-9.4	1.5	11.0
April	0.8	10.6	2.3	-1.6	1.5	4.0	1.2	-6.3	1.6	6.0
May	0.9	8.7	2.0	-13.4	1.6	-5.5	1.1	-9.7	1.5	-0.8
June	0.7	-3.7	2.3	-7.2	1.5	-7.1	1.2	-10.1	1.4	-5.3
Sources	"Trade Statistics of Japan", Ministry of Finance									