

# Revised Standard for the Indices of Industrial Production (IIP)



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## Slow Growth for 2017

The Indices of Industrial Production (IIP) coherently captures various activities related to production, shipment and inventory in Japan, and it is one of the major business indices. For the Coincident Index of the Indexes of Business Conditions also, of the nine adopted series four are breakdown series for the IIP.

The IIP captures Japan's production, shipment and inventory trends in the form of an index with the base year being 100. The creation procedures are as follows. First, major products are selected from the mining and manufacturing industries, and their production volume and others are made into an index with the base year being 100. The weighted average of these individual indices using weights that show the importance of each item becomes the Index of Industrial Production for the whole of Japan. The percentage of added value that each item creates in total industrial production and others are used as weights.

Typically, the base year is revised once every five years. From the confirmed values of the IIP for September 2018, which was released on Nov. 14, 2018, the base year which had been 2010 up to then was changed to 2015. *Chart 1* compares the Index of Industrial Production since 2013 for the 2010 standard with the 2015 standard after the revision. The drop in 2016 and the subsequent rise until 2017 shows a slower rise compared to before the revision. Before the revision, the drop in production for 2016 was 0.1%, but after the revision it was flat. The percentage rise in production for 2017 was 4.4%, but after the revision it was a 3.1% rise with a drop of close to 1 percentage point. Even after entering 2018, growth has been slow with the first quarter showing an increase of 1.8% year on year (compared to a 2.4% rise before the revision), the second quarter increase being 1.2% year on year (compared to a 1.9% rise before the revision), and the third quarter decrease being 0.1% year on year (compared to a 0.2% fall before the revision).

## Weight for Food & Tobacco Industry Rises

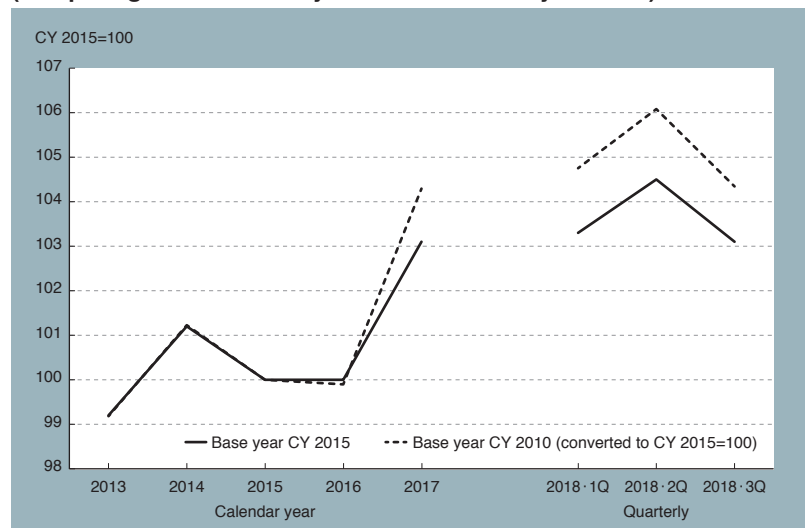
*Chart 2* shows the production weights by industry sectors for the base years 2005, 2010, and the latest, 2015. It can be confirmed that the weights by industry sectors, or in other words the industrial structure of Japan, has changed dramatically.

The largest drop in weight was Electronic parts and devices and Electrical machinery, and Information and communication electronics equipment, with both the weights dropping by around 2 percentage points in the past 10 years. Further, there was a significant drop between the 2010 standard and the 2015 standard. Conversely, the weight rose sharply for Foods and tobacco. The weight rose by roughly 7 percentage points between the 2010 standard and the 2015 standard.

This is thought to be one of the factors that led to a slow production growth rate up until 2017. For the 2015 standard, while Electronic parts and devices rose by 6.4% and Electrical machinery,

CHART 1

### Trend in IIP (comparing between base year 2015 and base year 2010)



Source: Indices of Industrial Production (IIP), Ministry of Economy, Trade and Industry

and Information and communication electronics equipment rose by 2.3%, Food and tobacco dropped by 0.8%. Weights for those industries which showed large growth have gone down, and weights for industries with flat growth went up. Whether fluctuations in the Index of Industrial Production will become smaller should be closely monitored.

### Shipment-Inventory Balance Shows Production Adjustment Phase

Chart 3 shows trends in the shipment-inventory balance, which subtracts the percentage rise in inventory compared to the previous year from the rise in shipments compared to the previous year. For the 2010 standard data, the shipment-inventory balance was negative for the period between the second quarter of 2014 to the second quarter of 2016, which meant a period of inventory adjustment continued, and production was also dropping for the period between the third quarter of 2014 to the second quarter of 2016. But for the 2015 standard data, the shipment-inventory balance turned positive for the period between the second to fourth quarter of 2015. The drop in production was also slower. This period was thought to be in actual recession, but from the 2015 standard data, it can be interpreted that it was in a landing phase.

But recent trends have shown a slowdown compared with before the standard revision. Prior to the revision, the shipment-inventory balance was negative after the period of January-March 2018. Moreover, it had recovered to near zero in the period of April-June 2018. After the revision, it turned negative in October-December 2017, a quarter earlier than before the revision, and a clear negative trend has been continuing.

For the period of July-September 2018, the special factor of a slump in production due to natural disasters is emphasized, but there may be a possibility that economic trends are at a stage requiring close attention.

**Note:** This article has been written based on information received as of Nov. 14, 2018.

CHART 2

### Weights of industries in the Index of Industrial Production

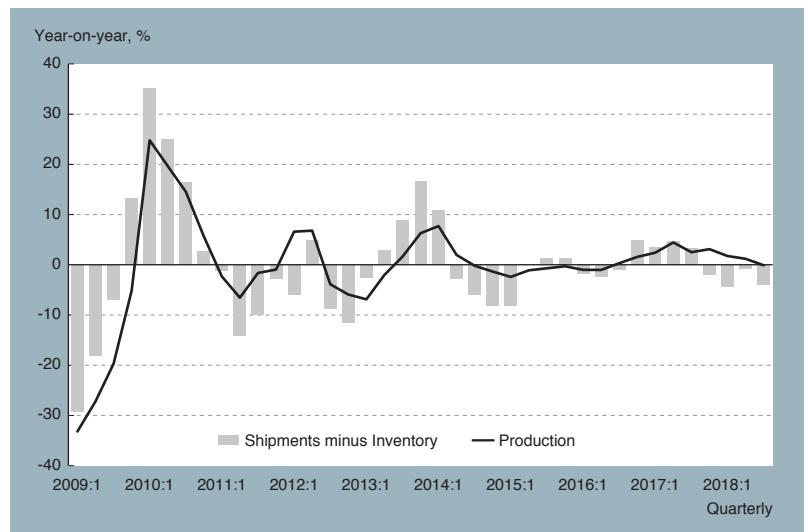
Weight (Production)	Base year			Balance		
	CY 2005	CY 2010	CY 2015	2005→10	2010→15	2005→15
Iron, steel and non-ferrous metals	811.4	623.6	624.8	▲187.8	1.2	▲186.6
Fabricated metals	566.8	418.1	438.1	▲148.7	20.0	▲128.7
General-purpose, production and business oriented machinery	1420.2	1273.1	1436.6	▲147.1	163.5	16.4
Electronic parts and devices	799.3	818.6	580.8	19.3	▲237.8	▲218.5
Electrical machinery, and Information and communication electronics equipment	1040.7	1121.1	839.3	80.4	▲281.8	▲201.4
Transport equipment	1685.8	1912.4	1796.5	226.6	▲115.9	110.7
Ceramics, stone and clay products	293	315.8	322	22.8	6.2	29.0
Chemicals	1181.3	1277.4	1093	96.1	▲184.4	▲88.3
Petroleum and coal products	99.9	175.8	118	75.9	▲57.8	18.1
Plastic products	383.7	507.5	441.7	123.8	▲65.8	58.0
Pulp, paper and paper products	241	203.6	226.5	▲37.4	22.9	▲14.5
Foods and tobacco	721.2	613.9	1313.8	▲107.3	699.9	592.6
Other manufacturing	734.8	718	751.9	▲16.8	33.9	17.1
Mining	20.9	21.1	17	0.2	▲4.1	▲3.9
Mining and manufacturing	10000	10000	10000			

Note: Other manufacturing in CY 2005 and CY 2010 are sum of Textiles and Other manufacturing. Electrical machinery, and Information and communication electronics equipment in CY 2005 is sum of General machinery and Precision instruments.

Source: Indices of Industrial Production (IIP), Ministry of Economy, Trade and Industry

CHART 3

### Shipment-inventory balance & production fluctuations



Source: Indices of Industrial Production (IIP), Ministry of Economy, Trade and Industry

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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 (%)		
2009	472.2	-5.4	489.5	-6.0	-21.8	-1.3
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	530.1	1.9	545.1	1.7	3.1	0.5
2017/4th Qtr.	534.1	0.4	550.8	0.5	1.2	0.9
2018/1st Qtr.	532.4	-0.3	547.7	-0.6	-1.1	0.9
2nd Qtr.	536.0	0.7	550.5	0.5	1.2	0.8
3rd Qtr.	532.6	-0.6	546.7	-0.7	-1.3	0.9
2018/March	—	—	—	—	2.1	0.9
April	—	—	—	—	-0.3	0.7
May	—	—	—	—	-0.6	0.7
June	—	—	—	—	-1.3	0.8
July	—	—	—	—	-0.4	0.8
Aug.	—	—	—	—	0.3	0.9
Sep.	—	—	—	—	-0.4	1.0
Oct.	—	—	—	—	2.9	1.0
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 (%)
2009	54.2	-33.1	51.5	-34.8	8.7	-38.6	5.5	-31.4	6.7	-41.0
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
2017/4th Qtr.	20.9	13.0	20.2	17.0	4.1	7.5	2.0	7.8	2.3	13.4
2018/1st Qtr.	19.9	4.9	20.1	7.5	3.7	1.9	2.1	4.6	2.3	9.7
2nd Qtr.	20.2	7.5	19.4	7.5	3.7	2.9	2.2	7.2	2.3	8.1
3rd Qtr.	20.2	2.9	20.7	12.4	3.8	-0.3	2.2	11.9	2.2	2.8
2018/March	7.4	2.1	6.6	-0.5	1.4	0.2	0.7	0.6	0.8	0.3
April	6.8	7.8	6.2	6.0	1.3	4.3	0.7	4.0	0.8	14.1
May	6.3	8.1	6.9	14.1	1.1	5.8	0.8	20.0	0.7	0.7
June	7.1	6.7	6.3	2.6	1.3	-0.9	0.7	-2.1	0.8	9.3
July	6.7	3.9	7.0	14.7	1.3	-5.2	0.7	11.2	0.8	6.4
Aug.	6.7	6.6	7.1	15.5	1.2	5.3	0.8	21.6	0.7	7.1
Sep.	6.7	-1.3	6.6	7.1	1.3	-0.5	0.7	3.2	0.7	-4.4
Oct.	7.2	8.2	7.7	19.9	1.4	11.6	0.9	34.3	0.8	7.7
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)	
2009	-3.9	0.47	5.1	2.7	5.4	13.6	93.5
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	-0.4	0.93	4.0	3.6	-8.8	4.5	97.6
2014	0.4	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	0.5	1.36	3.1	3.4	5.5	21.1	108.8
2017	0.4	1.50	2.8	4.0	5.0	22.0	112.2
2017/4th Qtr.	0.7	1.57	2.7	3.9	1.2	4.3	112.9
2018/1st Qtr.	1.4	1.59	2.5	3.2	0.7	5.9	108.2
2nd Qtr.	2.2	1.60	2.4	3.1	1.1	5.0	109.1
3rd Qtr.	1.1	1.63	2.4	2.9	0.1	5.7	111.5
2018/March	2.0	1.59	2.5	3.1	1.2	3.2	106.0
April	0.6	1.59	2.5	3.2	0.6	1.9	107.5
May	2.1	1.60	2.2	3.2	-0.3	1.9	109.7
June	3.3	1.62	2.4	3.1	0.8	1.2	110.0
July	1.6	1.63	2.5	2.9	-0.0	2.0	111.4
Aug.	0.8	1.63	2.4	2.9	-0.2	1.8	111.1
Sep.	0.8	1.64	2.3	2.8	0.3	1.8	111.9
Oct.	1.5	1.62	2.4	2.7	-0.3	1.3	112.8
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 (%)
2009	5.5	-24.3	19.1	-29.3	11.6	-32.8	10.2	-21.0	11.4	-22.9
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
2017/4th Qtr.	2.4	11.5	7.5	13.0	4.9	18.2	4.2	21.9	5.1	17.0
2018/1st Qtr.	2.4	13.8	7.1	3.4	5.1	10.4	3.7	8.8	4.6	2.1
2nd Qtr.	2.3	8.8	7.1	6.1	4.7	6.4	4.0	11.9	4.5	3.4
3rd Qtr.	2.5	11.7	7.3	4.1	4.9	5.6	4.0	7.3	4.8	5.7
2018/March	0.8	11.8	2.6	1.3	1.7	5.1	1.4	10.8	1.3	-16.8
April	0.7	9.0	2.3	3.4	1.5	5.4	1.3	10.9	1.5	2.3
May	0.8	12.0	2.3	7.6	1.7	10.3	1.3	13.9	1.6	8.7
June	0.8	5.2	2.5	7.2	1.6	3.7	1.4	11.1	1.5	-0.5
July	0.9	29.2	2.4	6.0	1.7	7.2	1.4	11.9	1.6	6.7
Aug.	0.8	6.6	2.4	4.1	1.7	8.4	1.4	12.1	1.5	6.0
Sep.	0.8	0.8	2.5	2.3	1.5	1.1	1.3	-1.7	1.6	4.3
Oct.	0.9	10.0	2.5	6.3	1.9	18.4	1.5	9.0	1.9	16.1
Sources	"Trade Statistics of Japan", Ministry of Finance									