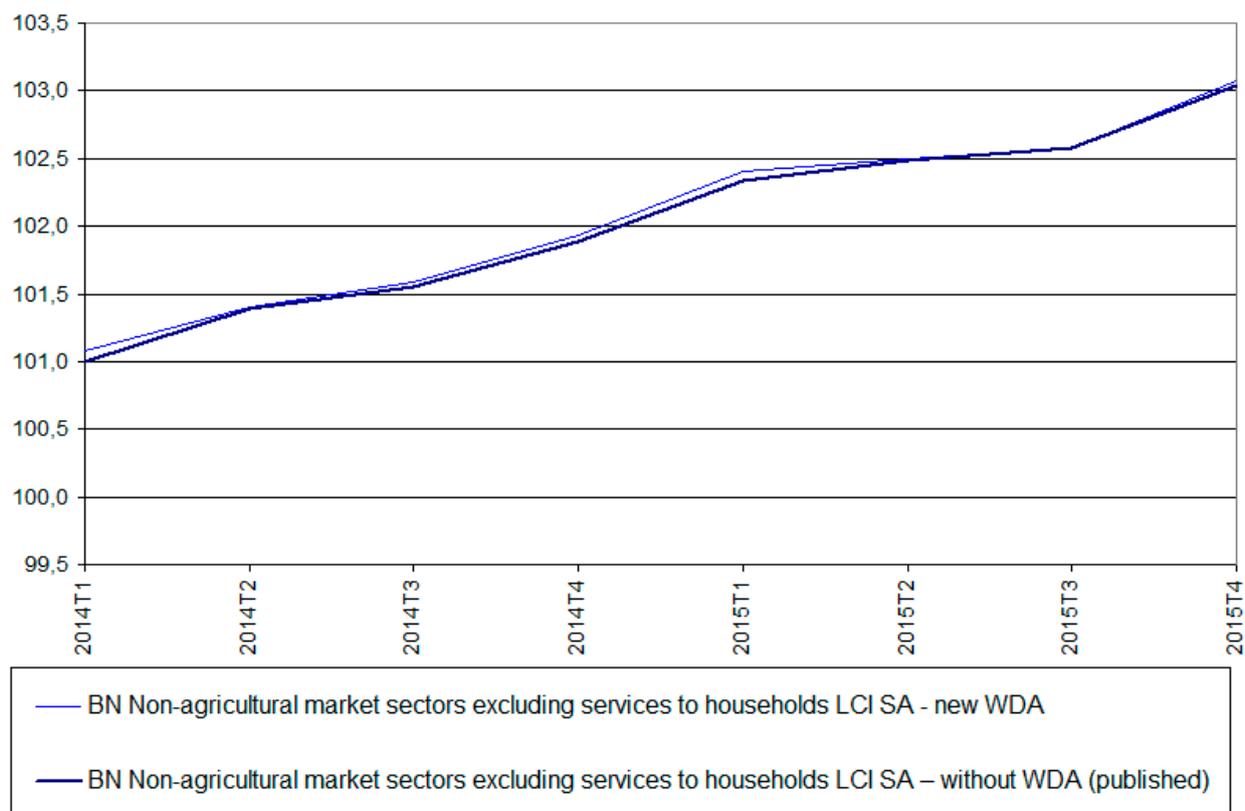


## Introduction of a working-day adjustment and a change in methodology for seasonal adjustments to the Labour Cost Index

According to European regulations, the Labour Cost Index have to be seasonally and working-day adjusted (SA-WDA). Up to the publication of figures for Q4 2015, the index was indeed seasonally adjusted but not working-day adjusted. Since Q1 2016, the published results have been also working-day adjusted, and this adjustment has been applied to the historical data. Adjusting for working days generated a slight revision to the whole LCI – total labour cost (a maximum of –0.1 points in the first quarters of the last three years), see *graph 1* and *table 2*. However, revisions have been more significant in mining and quarrying (B), electricity and gas production (D), water production and distribution (E) and construction (F).

Since the publication of the Q1 2016 figures, INSEE has changed the seasonal adjustment (SA) model used on the index in order to better take account of the seasonality specific to each sector. Depending on the sector, seasonality is sometimes better represented by a multiplicative rather than an additive model. This change in SA method has led to a small revision to the index across its entire scope (a maximum of 0.1 points in Q3 2015) but there have been more substantial revisions in mining and quarrying (B), electricity and gas (D), construction (F), transportation and storage (H) and financial activities (K), see *graph 3* and *table 4*.

### 1. Effect of introducing a working-day adjustment into LCI – total labour cost



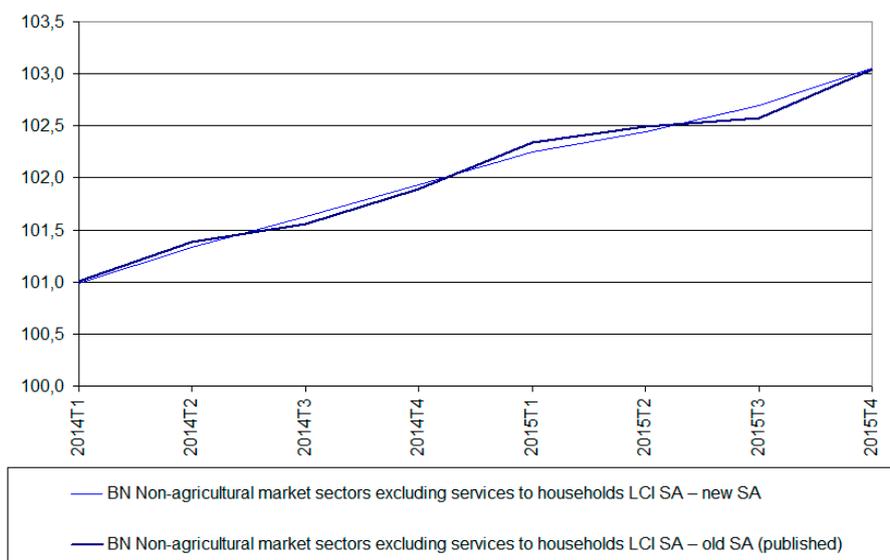
Source: INSEE

## 2. Revision of LCI – total labour cost level following the introduction of WDA from Q1 2014, by section

Div	Sections		2014T1	2014T2	2014T3	2014T4	2015T1	2015T2	2015T3	2015T4
05-82	BN Non-agricultural market sectors excluding services to households	LCI SA - new WDA	101,08	101,40	101,59	101,93	102,40	102,50	102,58	103,07
		LCI SA – without WDA (published)	101,00	101,39	101,55	101,89	102,34	102,49	102,58	103,04
05-39	BE Industry	LCI SA - new WDA	101,42	102,05	102,18	102,78	103,04	103,43	103,23	104,37
		LCI SA – without WDA (published)	101,36	102,01	102,14	102,74	102,99	103,43	103,23	104,33
45-82	GN Services	LCI SA - new WDA	100,98	101,28	101,44	101,66	102,23	102,24	102,43	102,52
		LCI SA – without WDA (published)	100,93	101,28	101,42	101,63	102,18	102,24	102,45	102,50
05-09	B Mining and quarrying	LCI SA - new WDA	101,20	99,89	100,73	100,45	100,64	100,11	100,31	102,07
		LCI SA – without WDA (published)	101,46	99,55	100,46	100,67	100,91	105,61	100,13	102,34
10-33	C Manufacturing	LCI SA - new WDA	101,61	102,11	102,36	103,03	103,35	103,47	103,38	104,66
		LCI SA – without WDA (published)	101,55	102,09	102,32	102,99	103,30	103,45	103,40	104,62
35	D Electricity, Gas, Steam and Air conditioning supply	LCI SA - new WDA	99,07	101,55	99,69	100,02	99,81	103,18	101,27	101,26
		LCI SA – without WDA (published)	99,08	101,33	99,78	99,99	99,84	102,93	101,24	101,23
36-39	E Production et distribution d'eau ; assainissement, gestion des déchets et dépollution	LCI SA - new WDA	99,44	99,34	100,34	100,11	99,95	100,02	100,46	101,04
		LCI SA – without WDA (published)	99,19	99,22	100,20	99,87	99,72	99,90	100,30	100,80
41-43	F Construction	LCI SA - new WDA	100,53	100,09	100,52	100,89	101,02	100,72	100,58	102,40
		LCI SA – without WDA (published)	100,22	100,02	100,33	100,75	100,76	100,62	100,42	102,28
45-47	G Wholesale and retail trade ; repair of motor vehicles and motorcycles	LCI SA - new WDA	100,27	100,82	100,98	101,47	101,24	101,66	102,12	102,31
		LCI SA – without WDA (published)	100,26	100,84	100,99	101,41	101,23	101,68	102,13	102,26
49-53	H Transportation and storage	LCI SA - new WDA	99,71	100,11	100,41	100,68	99,73	101,09	100,71	100,79
		LCI SA – without WDA (published)	99,64	100,10	100,39	100,63	99,66	101,09	100,72	100,75
55-56	I Accommodation and food service activities	LCI SA - new WDA	100,10	100,64	100,57	101,01	100,62	101,18	100,40	100,67
		LCI SA – without WDA (published)	100,09	100,64	100,58	101,03	100,63	101,18	100,44	100,68
58-63	J Information and communication	LCI SA - new WDA	101,44	102,03	101,90	102,22	103,71	103,38	103,78	103,78
		LCI SA – without WDA (published)	101,27	102,02	101,81	102,18	103,55	103,37	103,71	103,74
64-66	K Financial and insurance activities	LCI SA - new WDA	102,54	102,59	103,04	102,94	104,05	103,73	104,77	105,11
		LCI SA – without WDA (published)	102,58	102,60	103,03	103,01	104,09	103,75	104,85	105,18
68	L Real estate activities	LCI SA - new WDA	102,17	102,62	102,60	103,83	103,50	105,06	105,26	107,42
		LCI SA – without WDA (published)	102,19	102,61	102,65	103,79	103,52	105,05	105,33	107,38
69-75	M Professional, scientific and technical activities	LCI SA - new WDA	101,75	101,82	102,22	101,70	104,07	103,01	103,29	103,57
		LCI SA – without WDA (published)	101,66	101,81	102,17	101,66	103,98	103,01	103,26	103,53
77-82	N Administrative and support services activities	LCI SA - new WDA	100,41	100,16	99,95	100,38	100,99	100,60	100,57	100,05
		LCI SA – without WDA (published)	100,32	100,13	99,95	100,38	100,91	100,58	100,65	100,04

Source: INSEE

### 3. Effect on LCI – total labour cost of a change in SA method



Source: INSEE

### 4. Revision of LCI – total labour cost level following the change in SA method, from Q1 2014, by section

Div	Sections		2014T1	2014T2	2014T3	2014T4	2015T1	2015T2	2015T3	2015T4
05-82	BN Non-agricultural market sectors excluding services to households	LCI SA – new SA	100,98	101,33	101,62	101,93	102,25	102,44	102,70	103,05
		LCI SA – old SA (published)	101,00	101,39	101,55	101,89	102,34	102,49	102,58	103,04
05-39	BE Industry	LCI SA – new SA	101,38	101,87	102,33	102,70	102,98	103,25	103,54	104,20
		LCI SA – old SA (published)	101,36	102,01	102,14	102,74	102,99	103,43	103,23	104,33
45-82	GN Services	LCI SA – new SA	100,90	101,24	101,43	101,72	102,07	102,23	102,48	102,60
		LCI SA – old SA (published)	100,93	101,28	101,42	101,63	102,18	102,24	102,45	102,50
05-09	B Mining and quarrying	LCI SA – new SA	100,97	99,94	100,80	100,49	100,19	106,20	100,56	102,03
		LCI SA – old SA (published)	101,46	99,55	100,46	100,67	100,91	105,61	100,13	102,34
10-33	C Manufacturing	LCI SA – new SA	101,55	102,02	102,51	102,91	103,25	103,37	103,72	104,44
		LCI SA – old SA (published)	101,55	102,09	102,32	102,99	103,30	103,45	103,40	104,62
35	D Electricity, Gas, Steam and Air conditioning supply	LCI SA – new SA	99,45	100,34	100,01	100,31	100,33	101,59	101,62	101,59
		LCI SA – old SA (published)	99,08	101,33	99,78	99,99	99,84	102,93	101,24	101,23
36-39	E Water supply; sewerage; waste management and remediation activities	LCI SA – new SA	99,15	99,25	100,14	99,93	99,67	99,94	100,26	100,84
		LCI SA – old SA (published)	99,19	99,22	100,20	99,87	99,72	99,90	100,30	100,80
41-43	F Construction	LCI SA – new SA	100,16	100,09	100,52	100,62	100,62	100,70	100,77	101,96
		LCI SA – old SA (published)	100,22	100,02	100,33	100,75	100,76	100,62	100,42	102,28
45-47	G Wholesale and retail trade ; repair of motor vehicles and motorcycles	LCI SA – new SA	100,30	100,77	100,99	101,48	101,25	101,62	102,11	102,35
		LCI SA – old SA (published)	100,26	100,84	100,99	101,41	101,23	101,68	102,13	102,26
49-53	H Transportation and storage	LCI SA – new SA	99,84	100,00	100,33	100,52	99,99	100,91	100,68	100,58
		LCI SA – old SA (published)	99,64	100,10	100,39	100,63	99,66	101,09	100,72	100,75
55-56	I Accommodation and food service activities	LCI SA – new SA	100,03	100,42	100,71	101,17	100,53	100,89	100,64	100,84
		LCI SA – old SA (published)	100,09	100,64	100,58	101,03	100,63	101,18	100,44	100,68
58-63	J Information and communication	LCI SA – new SA	101,22	101,98	101,81	102,34	103,41	103,32	103,73	103,95
		LCI SA – old SA (published)	101,27	102,02	101,81	102,18	103,55	103,37	103,71	103,74
64-66	K Financial and insurance activities	LCI SA – new SA	102,35	102,75	103,00	103,11	103,54	104,18	104,79	105,35
		LCI SA – old SA (published)	102,58	102,60	103,03	103,01	104,09	103,75	104,85	105,18
68	L Real estate activities	LCI SA – new SA	102,21	102,55	102,82	103,50	103,63	104,94	105,71	106,76
		LCI SA – old SA (published)	102,19	102,61	102,65	103,79	103,52	105,05	105,33	107,38
69-75	M Professional, scientific and technical activities	LCI SA – new SA	101,55	101,79	102,23	101,87	103,68	103,01	103,37	103,76
		LCI SA – old SA (published)	101,66	101,81	102,17	101,66	103,98	103,01	103,26	103,53
77-82	N Administrative and support services activities	LCI SA – new SA	100,25	100,06	99,98	100,51	100,77	100,53	100,67	100,20
		LCI SA – old SA (published)	100,32	100,13	99,95	100,38	100,91	100,58	100,65	100,04

Source: INSEE