

III. Economic activity and prices

1. Output

d) Productivity and labour costs in industry *

2015 = 100

(R) seasonally adjusted

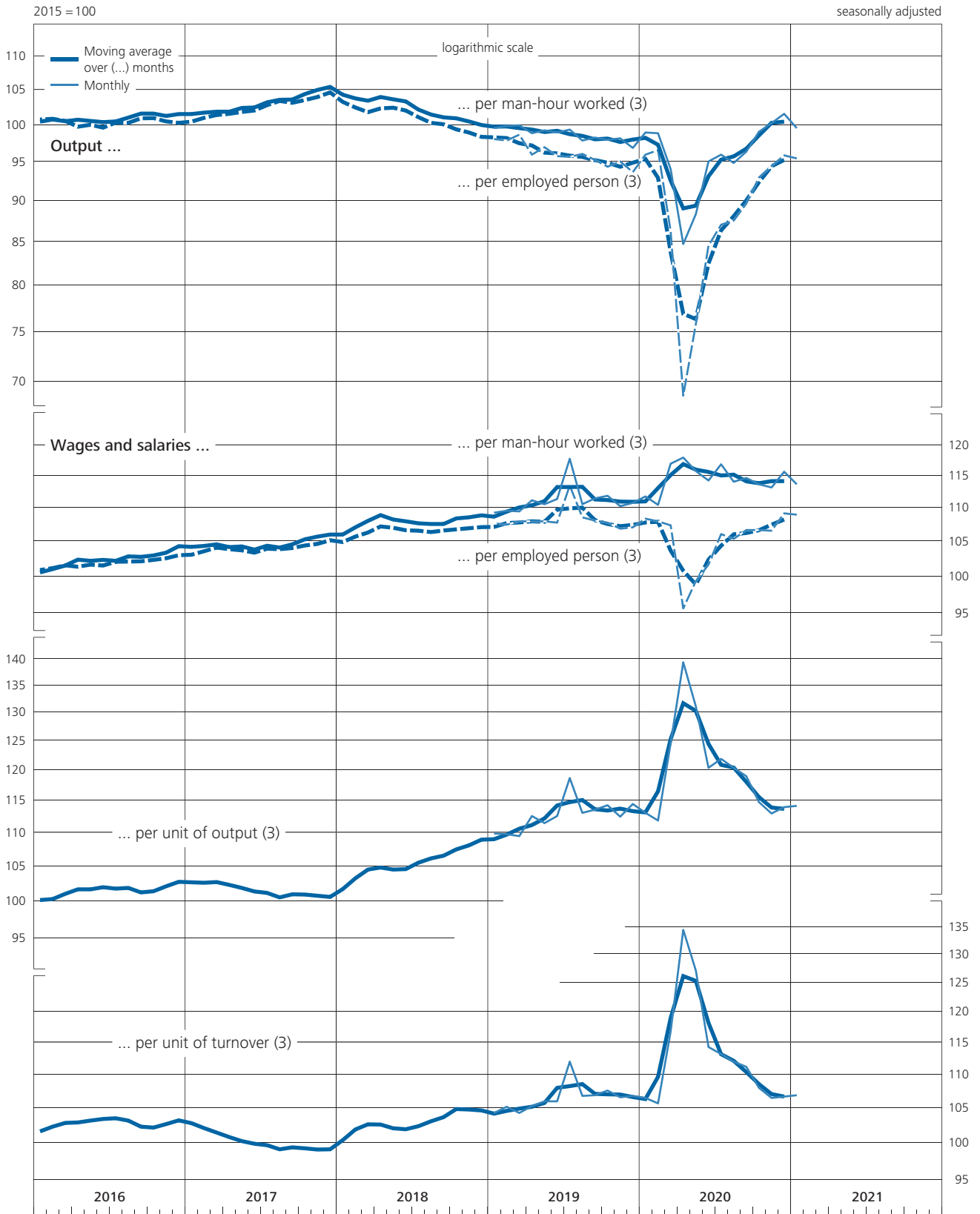
Period	Output				Wages and salaries ¹							
	Per employed person		Per man-hour worked		Per employed person		Per man-hour worked		Per unit of output		Per unit of turnover	
	monthly	quarterly	monthly	quarterly	monthly	quarterly	monthly	quarterly	monthly	quarterly	monthly	quarterly
2015 July ²	101.4		100.8		100.3		99.7		98.9		98.4	
Aug. ²	98.5	99.6	99.1	99.8	99.6	100.1	100.2	100.2	101.1	100.5	100.9	100.3
Sep.	99.0		99.4		100.3		100.7		101.4		101.7	
Oct.	99.9		99.9		100.1		100.1		100.2		99.9	
Nov.	99.0	99.5	99.4	99.7	100.2	100.3	100.6	100.4	101.2	100.8	102.2	101.0
Dec.	99.6		99.7		100.5		100.6		101.0		100.9	
2016 Jan.	101.4		100.8		100.8		100.1		99.3		101.8	
Feb.	101.1	100.8	100.7	100.7	101.2	101.1	100.8	101.0	100.0	100.2	102.0	102.2
Mar.	99.9		100.6		101.3		102.0		101.4		102.9	
Apr.	100.5		100.1		102.0		101.6		101.5		103.4	
May	98.7	100.0	101.3	100.5	100.6	101.6	103.3	102.1	101.9	101.6	102.2	103.1
June	100.7		100.1		102.2		101.5		101.4		103.7	
July ²	99.3		99.6		101.6		102.0		102.4		104.1	
Aug. ²	100.8	100.2	101.6	101.0	102.2	102.0	102.9	102.8	101.3	101.8	102.5	103.1
Sep.	100.6		101.7		102.3		103.4		101.7		102.7	
Oct.	101.2		101.3		101.7		101.8		100.5		101.5	
Nov.	100.9	100.4	101.6	101.2	102.8	102.5	103.5	103.3	101.8	102.0	102.1	102.6
Dec.	99.2		100.7		103.0		104.6		103.8		104.2	
2017 Jan.	100.6		102.1		103.0		104.6		102.4		103.1	
Feb.	101.4	100.9	101.6	101.7	103.0	103.5	103.2	104.3	101.6	102.5	100.9	102.0
Mar.	100.8		101.3		104.5		105.0		103.6		102.1	
Apr.	101.8		102.5		104.6		105.3		102.7		101.2	
May	101.9	101.8	101.6	102.3	102.3	103.6	102.0	104.2	100.4	101.8	99.0	100.2
June	101.6		102.9		104.0		105.3		102.3		100.4	
July ²	102.4		102.7		103.6		103.9		101.2		100.1	
Aug. ²	104.2	103.3	103.8	103.5	104.0	103.8	103.7	104.0	99.8	100.5	98.4	99.1
Sep.	103.4		104.0		103.8		104.5		100.4		98.7	
Oct.	101.6		102.8		104.1		105.3		102.5		100.9	
Nov.	105.4	103.9	106.2	104.9	105.1	104.6	105.9	105.6	99.7	100.7	98.0	99.0
Dec.	104.7		105.8		104.5		105.7		99.9		98.2	
2018 Jan.	103.6		104.1		105.7		106.2		102.0		101.0	
Feb.	101.3	102.4	102.8	103.7	104.3	105.6	105.9	107.0	103.0	103.2	101.8	101.8
Mar.	102.3		104.2		106.9		108.9		104.5		102.7	
Apr.	101.6		103.1		107.5		109.1		105.8		103.2	
May	102.9	102.4	104.4	103.6	107.0	106.9	108.5	108.2	103.9	104.4	101.7	102.0
June	102.6		103.2		106.3		106.9		103.6		101.1	
July ²	100.4		102.2		106.4		108.3		106.0		102.8	
Aug. ²	100.1	100.2	100.9	101.4	106.8	106.3	107.6	107.5	106.7	106.1	103.0	103.0
Sep.	100.2		101.1		105.7		106.6		105.5		103.2	
Oct.	99.8		101.0		107.1		108.3		107.2		104.6	
Nov.	98.0	98.9	100.5	100.4	107.3	106.9	110.1	108.5	109.5	108.0	106.5	104.7
Dec.	98.9		99.8		106.2		107.1		107.3		103.0	
2019 Jan.	98.0		99.5		107.6		109.2		109.8		104.2	
Feb.	97.8	98.1	99.8	99.7	107.4	107.6	109.5	109.4	109.7	109.6	105.1	104.5
Mar.	98.6		99.9		107.9		109.4		109.4		104.2	
Apr.	95.9		98.8		107.9		111.1		112.5		105.2	
May	96.9	96.2	99.2	99.0	107.9	107.8	110.5	111.0	111.4	112.1	105.9	105.7
June	95.7		98.9		107.7		111.3		112.5		105.9	
July ²	95.6		99.3		113.4		117.7		118.6		111.9	
Aug. ²	96.0	95.6	97.8	98.4	108.5	110.0	110.5	113.2	113.0	115.0	106.7	108.5
Sep.	95.2		98.2		108.0		111.4		113.5		106.8	
Oct.	94.3		97.9		107.7		111.8		114.2		107.5	
Nov.	95.0	94.3	98.1	97.6	106.8	107.2	110.2	110.9	112.4	113.7	106.5	106.9
Dec.	93.6		96.8		107.0		110.7		114.4		106.7	
2020 Jan. ^r	95.9		98.9		108.3		111.7		113.0		106.4	
Feb. ^r	96.5	92.9	98.8	97.2	107.9	107.8	110.4	113.0	111.8	116.4	105.6	109.6
Mar. ^r	86.2		94.0		107.3		116.9		124.5		116.7	
Apr. ^r	68.6		84.7		95.6		117.9		139.3		134.4	
May ^r	75.8	76.3	88.3	89.3	99.3	98.8	115.7	115.9	131.0	130.2	127.0	125.2
June ^r	84.5		95.0		101.6		114.2		120.3		114.2	
July ^r	87.0		95.9		106.0		116.8		121.8		113.1	
Aug. ^r	87.5	88.0	94.8	95.7	105.3	106.0	114.0	115.1	120.3	120.3	111.9	112.0
Sep. ^r	89.6		96.3		106.6		114.6		118.9		111.1	
Oct. ^r	○ 92.9		○ 99.0		○ 106.6		○ 113.6		○ 114.7		○ 107.9	
Nov. ^r	○ 94.4	94.4	○ 100.2	100.2	○ 106.5	107.4	○ 113.1	114.1	○ 112.9	113.8	○ 106.4	107.0
Dec. ^r	○ 95.8		○ 101.5		○ 109.1		○ 115.6		○ 113.9		○ 106.6	
2021 Jan. ^{○,p}	○,p 95.4		○,p 99.5		○,p 108.9		○,p 113.6		○,p 114.1		○,p 106.8	

Source of the unadjusted figures: Bundesbank calculations based on data from the Federal Statistical Office. * As well as mining of coal and lignite, extraction of crude petroleum and natural gas, manufacture of coke and refined petroleum products.

¹ Excluding employers' compulsory social security contributions. ² Influenced by a change in holiday dates. ○ Preliminary; output pre-adjusted by the Federal Statistical Office on the basis of estimations to the results of the quarterly production statistics.

III. Economic activity and prices

1. Output
 d) Productivity and labour costs in industry*



* As well as mining of coal and lignite, extraction of crude petroleum and natural gas, manufacture of coke and refined petroleum products.