

Accessible Version

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Figure 1. Total and Core PCE Prices

12-month percent change

Period	Headline	Core
Oct-15	0.09	1.16
Nov-15	0.23	1.16
Dec-15	0.3	1.13
Jan-16	0.82	1.34
Feb-16	0.59	1.39
Mar-16	0.63	1.38
Apr-16	0.89	1.47
May-16	0.8	1.5
Jun-16	0.79	1.5
Jul-16	0.75	1.58
Aug-16	0.9	1.7
Sep-16	1.23	1.68
Oct-16	1.46	1.82
Nov-16	1.44	1.76
Dec-16	1.71	1.83
Jan-17	2.03	1.9
Feb-17	2.25	1.94
Mar-17	1.96	1.75
Apr-17	1.85	1.73
May-17	1.67	1.67
Jun-17	1.57	1.7
Jul-17	1.56	1.58
Aug-17	1.65	1.52
Sep-17	1.85	1.54
Oct-17	1.78	1.65
Nov-17	1.91	1.68
Dec-17	1.87	1.7
Jan-18	1.85	1.75
Feb-18	1.95	1.77
Mar-18	2.15	2.05
Apr-18	2.12	1.98
May-18	2.35	2.08
Jun-18	2.36	2.04
Jul-18	2.43	2.11
Aug-18	2.27	2.01
Sep-18	2.11	2.09
Oct-18	2.13	1.96

Period	Headline	Core
Nov-18	2.01	2.07
Dec-18	1.88	2.08
Jan-19	1.5	1.88
Feb-19	1.41	1.73
Mar-19	1.55	1.63
Apr-19	1.66	1.73
May-19	1.54	1.65
Jun-19	1.49	1.75
Jul-19	1.55	1.76
Aug-19	1.5	1.84
Sep-19	1.35	1.69
Oct-19	1.38	1.69
Nov-19	1.38	1.53
Dec-19	1.6	1.59
Jan-20	1.8	1.69
Feb-20	1.76	1.8
Mar-20	1.26	1.61
Apr-20	0.42	0.91
May-20	0.45	0.94
Jun-20	0.74	0.94
Jul-20	0.89	1.13
Aug-20	1.16	1.35
Sep-20	1.28	1.46
Oct-20	1.11	1.35
Nov-20	1.08	1.35
Dec-20	1.28	1.46
Jan-21	1.48	1.57
Feb-21	1.7	1.56
Mar-21	2.53	2.05
Apr-21	3.63	3.12
May-21	4.05	3.52
Jun-21	4.25	3.8
Jul-21	4.42	3.87
Aug-21	4.52	3.88
Sep-21	4.65	3.92
Oct-21	5.22	4.31
Nov-21	5.85	4.82
Dec-21	5.97	5.04
Jan-22	6.12	5.21
Feb-22	6.39	5.42
Mar-22	6.77	5.36
Apr-22	6.41	5.03
May-22	6.52	4.88
Jun-22	6.98	5.04
Jul-22	6.39	4.7
Aug-22	6.26	4.93
Sep-22	6.29	5.2
Oct-22	6.08	5.05
Nov-22	5.54	4.68

Note: Data are through November 2022. PCE is personal consumption expenditures.

Source: Bureau of Economic Analysis via Haver Analytics.

Figure 2. Components of Core PCE Prices

12-month percent change

Period	Goods	Services ex. housing	Housing services
Oct-15	-0.98	1.47	3.24
Nov-15	-0.79	1.4	3.19
Dec-15	-0.79	1.33	3.24
Jan-16	-0.62	1.62	3.25
Feb-16	-0.63	1.73	3.22
Mar-16	-0.75	1.77	3.19
Apr-16	-0.65	1.87	3.2
May-16	-0.84	1.98	3.3
Jun-16	-0.86	1.99	3.28
Jul-16	-0.86	2.14	3.27
Aug-16	-0.58	2.2	3.31
Sep-16	-0.58	2.16	3.38
Oct-16	-0.52	2.34	3.46
Nov-16	-0.88	2.37	3.58
Dec-16	-0.84	2.44	3.64
Jan-17	-0.5	2.43	3.61
Feb-17	-0.51	2.5	3.62
Mar-17	-0.54	2.18	3.6
Apr-17	-0.85	2.32	3.52
May-17	-0.89	2.25	3.43
Jun-17	-0.71	2.22	3.41
Jul-17	-0.58	1.98	3.39
Aug-17	-0.85	1.96	3.46
Sep-17	-1.17	2.15	3.37
Oct-17	-0.97	2.26	3.37
Nov-17	-0.83	2.27	3.31
Dec-17	-0.85	2.3	3.36
Jan-18	-0.76	2.34	3.38
Feb-18	-0.83	2.42	3.3
Mar-18	-0.67	2.82	3.37
Apr-18	-0.38	2.55	3.46
May-18	-0.13	2.6	3.48
Jun-18	-0.39	2.66	3.43
Jul-18	-0.51	2.83	3.46
Aug-18	-0.73	2.77	3.41
Sep-18	-0.54	2.83	3.37
Oct-18	-0.57	2.63	3.34
Nov-18	-0.35	2.71	3.39
Dec-18	-0.46	2.81	3.28
Jan-19	-0.35	2.42	3.25
Feb-19	-0.63	2.25	3.35
Mar-19	-0.76	2.13	3.38
Apr-19	-0.92	2.35	3.42

Period	Goods	Services ex. housing	Housing services
May-19	-0.89	2.21	3.41
Jun-19	-0.47	2.17	3.5
Jul-19	-0.49	2.21	3.46
Aug-19	-0.08	2.18	3.42
Sep-19	-0.25	1.97	3.5
Oct-19	-0.32	2.04	3.41
Nov-19	-0.51	1.86	3.36
Dec-19	-0.44	1.93	3.38
Jan-20	-0.75	2.22	3.46
Feb-20	-0.39	2.28	3.4
Mar-20	-0.58	2.06	3.32
Apr-20	-1.23	1.13	3.17
May-20	-1.5	1.3	3.16
Jun-20	-1.58	1.43	2.93
Jul-20	-0.93	1.5	2.88
Aug-20	-0.35	1.64	2.77
Sep-20	-0.28	1.9	2.56
Oct-20	-0.45	1.8	2.55
Nov-20	-0.19	1.75	2.33
Dec-20	0.04	1.89	2.21
Jan-21	0.31	2	2.03
Feb-21	0.01	2.14	2.01
Mar-21	0.51	2.82	1.96
Apr-21	2.37	3.88	1.98
May-21	3.58	3.98	2.03
Jun-21	4.23	4.09	2.23
Jul-21	3.98	4.3	2.3
Aug-21	3.87	4.32	2.45
Sep-21	4.1	4.17	2.78
Oct-21	5.07	4.31	3.02
Nov-21	5.45	4.93	3.41
Dec-21	6.12	4.92	3.68
Jan-22	6.77	4.8	4
Feb-22	7.56	4.71	4.27
Mar-22	7.38	4.61	4.51
Apr-22	6.29	4.47	4.79
May-22	5.69	4.41	5.12
Jun-22	5.73	4.53	5.56
Jul-22	5.51	3.93	5.95
Aug-22	5.59	4.17	6.41
Sep-22	5.69	4.48	6.82
Oct-22	4.61	4.66	7.05
Nov-22	3.77	4.33	7.33

Note: Data are through November 2022. PCE is personal consumption expenditures. The price index for core services ex. housing is a staff estimate based on published data.

Source: Bureau of Economic Analysis via Haver Analytics; staff estimates.

*On January 9, 2023, a revised version of Figure 2 was posted. In the original version, the line intending to show the price index for core PCE services ex. housing was instead showing the price index for core PCE services.

Figure 3. Items in Short Supply

Percent

Period	Items in short supply
Dec-13	0
Jan-14	0
Feb-14	0
Mar-14	4.55
Apr-14	4.55
May-14	18.18
Jun-14	9.09
Jul-14	4.55
Aug-14	9.09
Sep-14	4.55
Oct-14	4.55
Nov-14	0
Dec-14	0
Jan-15	0
Feb-15	13.64
Mar-15	4.55
Apr-15	0
May-15	0
Jun-15	4.55
Jul-15	4.55
Aug-15	0
Sep-15	0
Oct-15	9.09
Nov-15	0
Dec-15	0
Jan-16	0
Feb-16	0
Mar-16	4.55
Apr-16	0
May-16	0
Jun-16	0
Jul-16	0
Aug-16	0
Sep-16	4.55
Oct-16	0
Nov-16	0
Dec-16	4.55
Jan-17	0
Feb-17	4.55
Mar-17	9.09
Apr-17	9.09
May-17	9.09
Jun-17	4.55
Jul-17	9.09
Aug-17	9.09
Sep-17	18.18

Period	Items in short supply
Oct-17	13.64
Nov-17	9.09
Dec-17	9.09
Jan-18	9.09
Feb-18	13.64
Mar-18	9.09
Apr-18	9.09
May-18	18.18
Jun-18	18.18
Jul-18	22.73
Aug-18	9.09
Sep-18	18.18
Oct-18	18.18
Nov-18	13.64
Dec-18	18.18
Jan-19	9.09
Feb-19	4.55
Mar-19	13.64
Apr-19	9.09
May-19	9.09
Jun-19	4.55
Jul-19	9.09
Aug-19	9.09
Sep-19	13.64
Oct-19	9.09
Nov-19	4.55
Dec-19	13.64
Jan-20	9.09
Feb-20	0
Mar-20	4.55
Apr-20	9.09
May-20	4.55
Jun-20	9.09
Jul-20	4.55
Aug-20	18.18
Sep-20	27.27
Oct-20	27.27
Nov-20	22.73
Dec-20	22.73
Jan-21	22.73
Feb-21	31.82
Mar-21	31.82
Apr-21	45.45
May-21	36.36
Jun-21	40.91
Jul-21	40.91
Aug-21	40.91
Sep-21	31.82
Oct-21	31.82
Nov-21	45.45

Period	Items in short supply
Dec-21	27.27
Jan-22	36.36
Feb-22	31.82
Mar-22	40.91
Apr-22	31.82
May-22	36.36
Jun-22	27.27
Jul-22	31.82
Aug-22	27.27
Sep-22	18.18
Oct-22	27.27
Nov-22	18.18
Dec-22	31.82

Note: Data are through December 2022. Percent of major manufacturing sector material groups.

Source: Institute for Supply Management Manufacturing Report on Business.

Figure 4. Reasons for Operating Below Capacity

Percent

Period	Insufficient supply of materials	Insufficient supply of labor	Logistics/transport concerns	Insufficient orders
2014:Q1	5.22	7.42	1.51	82.36
2014:Q2	5.1	9.15	1.48	81.24
2014:Q3	5.56	9.54	1.99	81.49
2014:Q4	5.34	7.99	1.45	81.06
2015:Q1	4.12	9.02	1.58	81.04
2015:Q2	5.52	13.76	1.94	75.23
2015:Q3	4.51	13.08	1.76	76.23
2015:Q4	5.18	11.19	1.79	75.27
2016:Q1	4.9	12.67	1.42	77.97
2016:Q2	4.79	12.32	1.14	80.25
2016:Q3	4.27	10.47	1.08	79.02
2016:Q4	3.82	11.73	1.42	76.93
2017:Q1	4.76	12.5	1.26	77
2017:Q2	6.26	14.26	1.71	75.77
2017:Q3	6.46	17.37	1.86	73.47
2017:Q4	6.6	15.64	1.97	74.61
2018:Q1	6.62	17.15	1.94	73.41
2018:Q2	8.78	22.22	3.24	69.97
2018:Q3	10.29	23.45	2.67	72.23
2018:Q4	7.3	19.7	2.8	72.6
2019:Q1	7.5	18.8	2.8	72.1
2019:Q2	7.1	21	2.1	71.9
2019:Q3	7.3	19.9	2.8	74.5
2019:Q4	7.4	16.3	2.5	72.4
2020:Q1	9.8	16.1	2.4	72.4
2020:Q2	9.4	15.2	3.4	70.8
2020:Q3	11	18.6	3.4	68.2
2020:Q4	13.5	21.8	4.4	65.5

Period	Insufficient supply of materials	Insufficient supply of labor	Logistics/transport concerns	Insufficient orders
2021:Q1	21.6	28	5.6	62.7
2021:Q2	33.3	41	9.1	57.3
2021:Q3	38.1	46.3	10.9	49.9
2021:Q4	42.7	43.6	12.5	49.4
2022:Q1	39.2	45.2	14.7	48.3
2022:Q2	39.5	44.7	13.3	50.9
2022:Q3	34.2	42.8	10.9	53.8

Note: Data are through 2022:Q3.

Source: Quarterly Survey of Plant Capacity Utilization; U.S. Census Bureau.

Figure 5. Selected Market-Rate Rents

12-month percent change

Period	Apartment List (national)	CoreLogic single-family detached (national)	Zillow (national)	PCE housing services
Oct-18	3.11	3.27	3.88	3.34
Nov-18	3.13	3.27	3.97	3.39
Dec-18	3.33	3.32	4.04	3.28
Jan-19	3.43	3.44	4.02	3.25
Feb-19	3.62	3.38	4	3.35
Mar-19	3.4	3.26	3.97	3.38
Apr-19	3.37	3.06	3.99	3.42
May-19	3.15	3.05	4.01	3.41
Jun-19	3.03	2.96	4.04	3.5
Jul-19	2.92	3.01	4.05	3.46
Aug-19	2.73	3	3.99	3.42
Sep-19	2.64	3.04	3.96	3.5
Oct-19	2.47	2.95	3.93	3.41
Nov-19	2.3	2.92	3.86	3.36
Dec-19	2.4	2.94	3.83	3.38
Jan-20	2.49	2.91	3.85	3.46
Feb-20	2.48	2.98	3.99	3.4
Mar-20	2.37	2.95	3.88	3.32
Apr-20	1	2.44	3.16	3.17
May-20	-0.54	1.88	2.17	3.16
Jun-20	-1.78	1.75	1.33	2.93
Jul-20	-1.95	2.4	1.13	2.88
Aug-20	-1.77	3.17	1.01	2.77
Sep-20	-1.51	3.96	0.91	2.56
Oct-20	-1.43	5.02	0.81	2.55
Nov-20	-1.35	5.85	0.99	2.33
Dec-20	-1.44	6.45	1.1	2.21
Jan-21	-1.26	6.64	1.16	2.03
Feb-21	-0.81	6.84	1.07	2.01
Mar-21	0.18	7.4	1.41	1.96
Apr-21	2.42	8.45	2.84	1.98
May-21	5.42	9.77	4.99	2.03
Jun-21	8.61	11.01	7.31	2.23
Jul-21	11.2	11.45	9.22	2.3

Period	Apartment List (national)	CoreLogic single-family detached (national)	Zillow (national)	PCE housing services
Aug-21	13.69	11.91	11.24	2.45
Sep-21	15.96	12.19	13.11	2.78
Oct-21	17.39	12.33	14.56	3.02
Nov-21	18.03	12.17	15.39	3.41
Dec-21	17.99	12.18	16.07	3.68
Jan-22	17.94	12.54	16.38	4
Feb-22	17.71	12.99	17.02	4.27
Mar-22	17.1	13.29	17.01	4.51
Apr-22	16.46	13.56	16.91	4.79
May-22	15.41	13.31	16.12	5.12
Jun-22	14.11	12.55	15.25	5.56
Jul-22	12.19	11.8	14	5.95
Aug-22	9.83	10.49	12.47	6.41
Sep-22	7.54	9.28	11.01	6.82
Oct-22	5.71	7.58	9.82	7.05
Nov-22	4.63	ND	8.69	7.33

Note: Apartment List, CoreLogic, and Zillow measure market rate rents—that is, rents for a new lease by a new tenant. Data are through October 2022 for CoreLogic and November 2022 for all other series. PCE is personal consumption expenditures.

Source: Apartment List; Bureau of Economic Analysis; CoreLogic; Zillow.

Figure 6. Return to In-Office Work

Line chart, February 6, 2020 to November 30, 2022. Unit is Index, February 2020 = 100. Data are daily before January 6, 2021 and weekly thereafter. The series begins at about 100 and falls to about 15 by April 2020. It generally increases to about 42 in December 2021 before decreasing to about 25 in January 2022. It generally increases thereafter and is at about 50 in November 2022.

Note: Weekly averages are through November 30, 2022. Data before January 6, 2021 are 7-day averages. Based on employee card entries into office buildings.

Source: Kastle Systems International.

Figure 7. Indicators of Selected Services Spending

Line chart, December 2020 to December 2022. Units are Percent change from same day 2019 (2-week rolling average). There are three series: “Airport departures,” “Hotel occupancy,” and “Restaurant reservations.” Airport departures begin at around -65, increase to about -10 by December 2021, decrease to about -25 by January 2022, and then fluctuate between about -15 and 0 from February 2022 to December 2022, ending at -8. Hotel occupancy begins at around -30, increases to about 7 by December 2022, decreases to about -16 by January 2022, and then fluctuates between about -10 and 5 from February 2022 to December 2022, ending at -4.5. Restaurant reservations begin at around -65, increase to about 0 by November 2021, decrease to about -25 by January 2022, and then fluctuate between about -15 and 10 from February 2022 to December 2022, ending at 8.6.

Note: Data are through December 10, 2022 (hotel occupancy), December 27, 2022 (restaurant reservations), and December 31, 2022 (airport departures).

Source: Transportation Security Administration; Smith Travel Research; OpenTable via Haver Analytics.

Figure 8. Inflation Perceptions and Expectations

Percent

Period	Long Term, Median (left panel)		Short Term, Median (right panel)	
	Expected over next 5 to 10 years (monthly)	Perceived over past 5 to 10 years (quarterly)	Expected over next 12 months (monthly)	Perceived over past 12 months (quarterly)
13-Aug	2.9		3	
13-Sep	3		3.3	
13-Oct	2.8		3	
13-Nov	2.9		2.9	
13-Dec	2.7		3	
14-Jan	2.9		3.1	
14-Feb	2.9		3.2	
14-Mar	2.9		3.2	
14-Apr	2.9		3.2	
14-May	2.8		3.3	
14-Jun	2.9		3.1	
14-Jul	2.7		3.3	
14-Aug	2.9		3.2	
14-Sep	2.8		3	
14-Oct	2.8		2.9	
14-Nov	2.6		2.8	
14-Dec	2.8		2.8	
15-Jan	2.8		2.5	
15-Feb	2.7		2.8	
15-Mar	2.8		3	
15-Apr	2.6		2.6	
15-May	2.8		2.8	
15-Jun	2.6		2.7	
15-Jul	2.8		2.8	
15-Aug	2.7		2.8	
15-Sep	2.7		2.8	
15-Oct	2.5		2.7	
15-Nov	2.6		2.7	
15-Dec	2.6		2.6	
16-Jan	2.7		2.5	
16-Feb	2.5	2.5	2.5	1.7
16-Mar	2.7		2.7	
16-Apr	2.5		2.8	
16-May	2.5	2.6	2.4	1.6
16-Jun	2.6		2.6	
16-Jul	2.6		2.7	
16-Aug	2.5	2.7	2.5	1.7
16-Sep	2.6		2.4	
16-Oct	2.4		2.4	
16-Nov	2.6	2.7	2.4	1.9
16-Dec	2.3		2.2	
17-Jan	2.6		2.6	
17-Feb	2.5	2.4	2.7	1.6

Period	Long Term, Median (left panel)		Short Term, Median (right panel)	
	Expected over next 5 to 10 years (monthly)	Perceived over past 5 to 10 years (quarterly)	Expected over next 12 months (monthly)	Perceived over past 12 months (quarterly)
17-Mar	2.4		2.5	
17-Apr	2.4		2.5	
17-May	2.4	2.4	2.6	1.6
17-Jun	2.5		2.6	
17-Jul	2.6		2.6	
17-Aug	2.5	2.4	2.6	1.8
17-Sep	2.5		2.7	
17-Oct	2.5		2.4	
17-Nov	2.4	2.5	2.5	2
17-Dec	2.4		2.7	
18-Jan	2.5		2.7	
18-Feb	2.5	2.5	2.7	1.9
18-Mar	2.5		2.8	
18-Apr	2.5		2.7	
18-May	2.5	2.4	2.8	2.4
18-Jun	2.6		3	
18-Jul	2.4		2.9	
18-Aug	2.6	2.6	3	2.1
18-Sep	2.5		2.7	
18-Oct	2.4		2.9	
18-Nov	2.6	2.5	2.8	2.3
18-Dec	2.5		2.7	
19-Jan	2.6		2.7	
19-Feb	2.3	2.4	2.6	2
19-Mar	2.5		2.5	
19-Apr	2.3		2.5	
19-May	2.6	2.6	2.9	2.3
19-Jun	2.3		2.7	
19-Jul	2.5		2.6	
19-Aug	2.6	2.5	2.7	2.1
19-Sep	2.4		2.8	
19-Oct	2.3		2.5	
19-Nov	2.5	2.6	2.5	2.2
19-Dec	2.2		2.3	
20-Jan	2.5		2.5	
20-Feb	2.3	2.4	2.4	2
20-Mar	2.3		2.2	
20-Apr	2.5		2.1	
20-May	2.7	2.5	3.2	1.7
20-Jun	2.5		3	
20-Jul	2.6		3	
20-Aug	2.7	2.7	3.1	2.6
20-Sep	2.7		2.6	
20-Oct	2.4		2.6	
20-Nov	2.5	2.5	2.8	2.1
20-Dec	2.5		2.5	
21-Jan	2.7		3	
21-Feb	2.7	2.4	3.3	2.1

Period	Long Term, Median (left panel)		Short Term, Median (right panel)	
	Expected over next 5 to 10 years (monthly)	Perceived over past 5 to 10 years (quarterly)	Expected over next 12 months (monthly)	Perceived over past 12 months (quarterly)
21-Mar	2.8		3.1	
21-Apr	2.7		3.4	
21-May	3	2.8	4.6	4.7
21-Jun	2.8		4.2	
21-Jul	2.8		4.7	
21-Aug	2.9	2.8	4.6	5.3
21-Sep	3		4.6	
21-Oct	2.9		4.8	
21-Nov	3	2.9	4.9	6.5
21-Dec	2.9		4.8	
22-Jan	3.1		4.9	
22-Feb	3	3	4.9	7.3
22-Mar	3		5.4	
22-Apr	3		5.4	
22-May	3	3.2	5.3	9.5
22-Jun	3.1		5.3	
22-Jul	2.9		5.2	
22-Aug	2.9	3.4	4.8	9.6
22-Sep	2.7		4.7	
22-Oct	2.9		5	
22-Nov	3	3.5	4.9	10
22-Dec	2.9		4.4	

Note: Data are through November 2022 (perceptions) and December 2022 (exceptions).

Source: Survey of Consumers via University of Michigan, Survey Research Center.

Last Update: January 09, 2023