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PRODUCER PRICE INDEXES – JULY 2020

The Producer Price Index for final demand increased 0.6 percent in July, seasonally adjusted, the U.S. Bureau of Labor Statistics reported today. This rise followed a 0.2-percent decline in June and a 0.4-percent advance in May. (See table A.) The July increase is the largest rise since a 0.7-percent advance in October 2018. On an unadjusted basis, the final demand index moved down 0.4 percent for the 12 months ended in July.

In July, the advance in the final demand index was led by a 0.5-percent rise in prices for final demand services. The index for final demand goods also moved higher, increasing 0.8 percent.

Prices for final demand less foods, energy, and trade services advanced 0.3 percent in July, the same as in June. For the 12 months ended in July, the index for final demand less foods, energy, and trade services edged up 0.1 percent, following three straight 12-month declines.

Chart 1. One-month percent changes in selected PPI final demand price indexes, seasonally adjusted

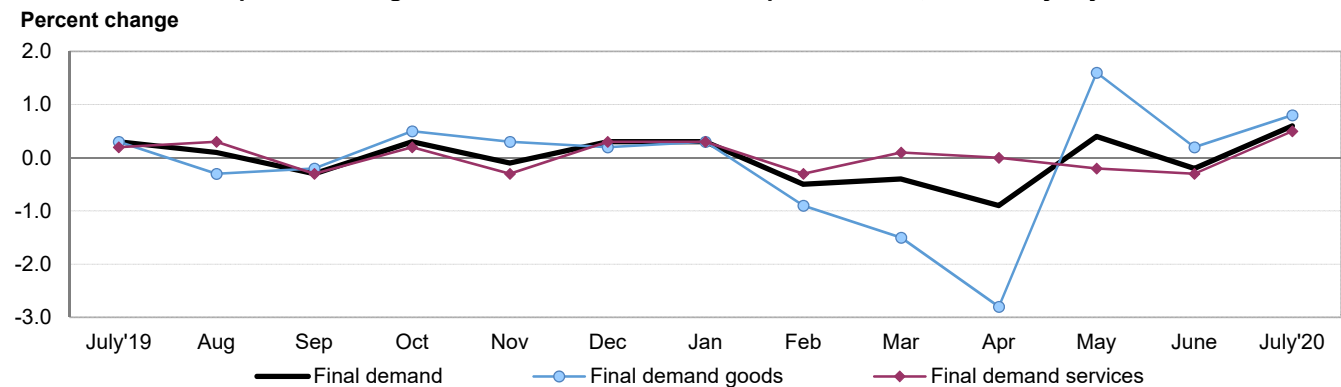
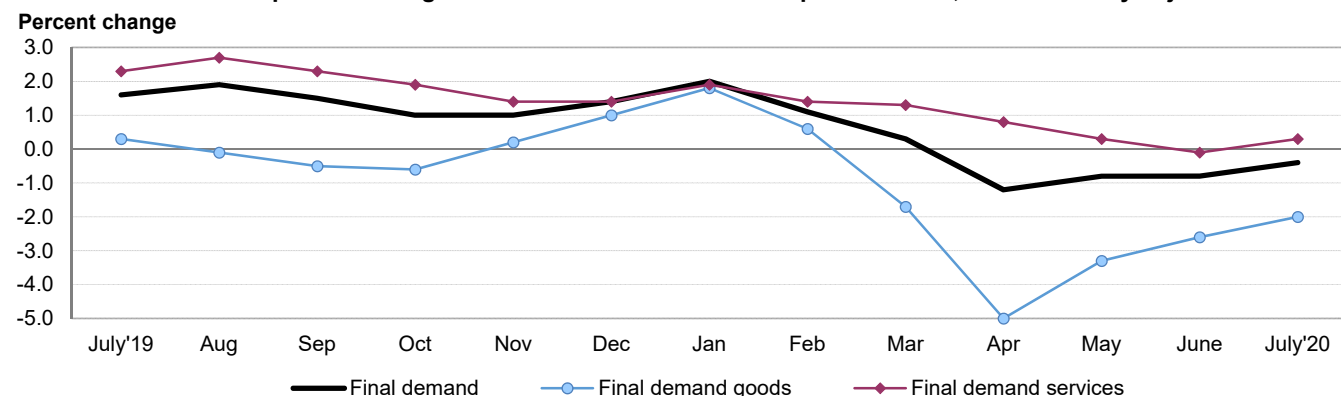


Chart 2. Twelve-month percent changes in selected PPI final demand price indexes, not seasonally adjusted



Final Demand

Final demand services: The index for final demand services moved up 0.5 percent in July, the largest advance since climbing 0.5 percent in April 2019. In July, about 60 percent of the rise can be traced to a 0.4-percent increase in prices for final demand services less trade, transportation, and warehousing. Margins for final demand trade services also moved higher, advancing 0.8 percent. (Trade indexes measure changes in margins received by wholesalers and retailers.) In contrast, prices for final demand transportation and warehousing services fell 0.8 percent.

Product detail: In July, a 7.8-percent rise in the index for portfolio management was a major factor in the advance in prices for final demand services. The indexes for machinery and vehicle wholesaling, automobiles and automobile parts retailing, long-distance motor carrying, legal services, and machinery and equipment parts and supplies wholesaling also moved higher. Conversely, prices for airline passenger services decreased 7.0 percent. The indexes for automotive fuels and lubricants retailing and for guestroom rental also declined. (See table 4.)

Final demand goods: The index for final demand goods rose 0.8 percent in July, the third consecutive advance. Leading the July increase, prices for final demand energy climbed 5.3 percent. The index for final demand goods less foods and energy moved up 0.3 percent. In contrast, prices for final demand foods declined 0.5 percent.

Product detail: Over one-third of the July advance in the index for final demand goods is attributable to gasoline prices, which rose 10.1 percent. The indexes for diesel fuel, home heating oil, electric power, fluid milk products, and industrial chemicals also increased. Conversely, meat prices fell 8.0 percent. The indexes for residential natural gas and carbon steel scrap also decreased.

Table A. Monthly and 12-month percent changes in selected final demand price indexes, seasonally adjusted

Month	Total final demand	Final demand less foods, energy, and trade	Final demand goods				Final demand services				Change in final demand from 12 months ago (unadj.)	Change in final demand less foods, energy, and trade from 12 mo. ago (unadj.)
			Total	Foods	Energy	Less foods and energy	Total	Trade	Transportation and warehousing	Other		
2019												
July...	0.3	0.2	0.3	0.2	1.0	0.2	0.2	0.2	0.2	1.6	1.9	
Aug...	0.1	0.1	-0.3	-0.6	-1.4	0.0	0.3	0.9	-0.2	0.2	1.9	
Sept...	-0.3	0.0	-0.2	0.4	-1.4	-0.1	-0.3	-0.9	-0.2	0.0	1.5	
Oct....	0.3	0.0	0.5	1.4	1.8	0.1	0.2	0.5	0.4	0.0	1.0	
Nov....	-0.1	0.1	0.3	1.3	-0.1	0.1	-0.3	-1.2	-0.2	0.1	1.0	
Dec....	0.3	0.2	0.2	-0.2	1.1	0.0	0.3	0.6	1.6	0.1	1.4	
2020												
Jan...	0.3	0.3	0.3	0.2	0.4	0.3	0.3	0.3	-1.3	0.5	2.0	
Feb...	-0.5	-0.1	-0.9	-1.8	-3.9	0.1	-0.3	-0.7	-0.2	-0.3	1.1	
Mar. ¹ ..	-0.4	-0.2	-1.5	-0.1	-9.1	0.0	0.1	0.9	-2.9	0.1	0.3	
Apr. ¹ ..	-0.9	-0.9	-2.8	-0.4	-16.8	-0.3	0.0	2.7	-4.0	-0.9	-1.2	
May...	0.4	0.1	1.6	6.0	4.5	0.0	-0.2	-0.8	1.5	0.0	-0.8	
June...	-0.2	0.3	0.2	-5.2	7.7	0.1	-0.3	-1.8	0.9	0.3	-0.8	
July...	0.6	0.3	0.8	-0.5	5.3	0.3	0.5	0.8	-0.8	0.4	-0.4	

¹ Some of the figures shown above and elsewhere in this release may differ from those previously reported because data for March 2020 have been revised to reflect the availability of late reports and corrections by respondents.

Intermediate Demand by Commodity Type

Within intermediate demand in July, prices for processed goods rose 1.5 percent, the index for unprocessed goods fell 0.7 percent, and prices for services increased 0.7 percent. (See tables B and C.)

Processed goods for intermediate demand: The index for processed goods for intermediate demand rose 1.5 percent in July, the largest increase since moving up 1.5 percent in February 2011. Over three-quarters of the July advance can be traced to prices for processed energy goods, which jumped 7.4 percent. The index for processed materials less foods and energy rose 0.5 percent. In contrast, prices for processed foods and feeds decreased 0.7 percent. For the 12 months ended in July, the index for processed goods for intermediate demand fell 3.6 percent.

Product Detail: Nearly half of the July increase in prices for processed goods for intermediate demand can be attributed to the index for diesel fuel, which rose 31.3 percent. Prices for gasoline, industrial chemicals, commercial electric power, softwood lumber, and lubricating oil base stocks also advanced. Conversely, the index for meats fell 8.0 percent. Prices for fabricated structural metal and utility natural gas also decreased. (See table 5.)

Unprocessed goods for intermediate demand: Prices for unprocessed goods for intermediate demand fell 0.7 percent in July following two consecutive increases. The decline can be attributed to a 7.4-percent decrease in the index for unprocessed energy materials. In contrast, prices for unprocessed foodstuffs and feedstuffs rose 4.3 percent, and the index for unprocessed nonfood materials less energy moved up 0.3 percent. For the 12 months ended in July, prices for unprocessed goods for intermediate demand dropped 16.3 percent.

Product detail: Leading the July decline in the index for unprocessed goods for intermediate demand, prices for crude petroleum decreased 13.6 percent. The indexes for slaughter cattle, slaughter hogs, corrugated recyclable paper, carbon steel scrap, and natural gas also fell. Conversely, prices for raw milk jumped 43.7 percent. The indexes for corn and nonferrous metal ores also advanced.

Table B. Monthly and 12-month percent changes in selected intermediate demand price indexes for goods by commodity type, seasonally adjusted

Month	Processed goods for intermediate demand					Unprocessed goods for intermediate demand				
	Total	Foods and feeds	Energy goods	Less foods and energy	Total, change from 12 months ago (unadj.)	Total	Food-stuffs and feed-stuffs	Energy materials	Nonfood materials less energy	Total, change from 12 months ago (unadj.)
2019										
July.....	0.1	0.1	1.1	-0.2	-2.3	1.4	0.4	2.0	1.5	-9.7
Aug.....	-0.5	0.3	-1.4	-0.3	-3.0	-1.6	-0.5	-3.1	-0.6	-7.7
Sept.....	-0.1	0.8	-0.5	-0.2	-3.5	0.0	-0.9	1.5	-0.9	-8.9
Oct.....	0.3	0.4	0.1	0.3	-3.8	0.3	5.4	-4.1	-0.8	-11.2
Nov.....	0.2	1.4	1.4	-0.2	-2.9	3.1	0.6	7.8	-0.1	-5.1
Dec.....	-0.1	0.0	0.5	-0.2	-1.7	1.2	0.5	0.8	3.1	-7.3
2020										
Jan.....	-0.2	-0.2	-1.0	0.1	-1.0	-1.1	0.2	-5.9	5.0	-3.7
Feb.....	-0.9	-0.8	-4.0	-0.1	-2.0	-6.7	-4.9	-12.2	-1.4	-7.8
Mar. ¹	-1.5	-0.7	-7.4	-0.2	-4.0	-8.5	-4.3	-20.0	1.2	-15.6
Apr. ¹	-3.3	0.1	-13.7	-1.4	-7.3	-13.6	-10.3	-26.5	-4.0	-28.2
May.....	0.1	6.4	0.1	-0.6	-6.8	8.9	4.5	26.5	0.6	-19.4
June.....	0.9	-5.5	7.2	0.5	-5.0	3.1	-5.6	16.8	1.1	-14.6
July.....	1.5	-0.7	7.4	0.5	-3.6	-0.7	4.3	-7.4	0.3	-16.3

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Services for intermediate demand: Prices for services for intermediate demand climbed 0.7 percent in July, the largest increase since moving up 1.0 percent in January 2016. Almost three-fourths of the July advance can be attributed to a 0.8-percent rise in the index for services less trade, transportation, and warehousing for intermediate demand. Margins for trade services for intermediate demand jumped 1.1 percent. In contrast, prices for transportation and warehousing services for intermediate demand decreased 0.4 percent. For the 12 months ended in July, the index for services for intermediate demand fell 1.0 percent.

Product detail: A major factor in the July increase in the index for services for intermediate demand was a 6.6-percent rise in prices for television advertising time sales. The indexes for portfolio management; machinery and equipment parts and supplies wholesaling; hardware, building materials, and supplies retailing; legal services; and long-distance motor carrying also advanced. Conversely, prices for airline passenger services dropped 7.0 percent. The indexes for business loans (partial) and for chemicals and allied products wholesaling also declined.

Table C. Monthly and 12-month percent changes in selected intermediate demand price indexes for services by commodity type, seasonally adjusted

Month	Services for intermediate demand				Total, change from 12 months ago (unadj.)
	Total	Trade	Transportation and warehousing	Other	
2019					
July.....	0.1	0.2	0.4	0.0	2.3
Aug.....	0.4	1.4	0.2	0.2	2.7
Sept.....	0.2	1.0	0.2	0.0	2.5
Oct.....	-0.6	-0.8	0.1	-0.6	1.4
Nov.....	-0.1	-0.3	-0.1	-0.1	1.3
Dec.....	0.5	1.0	0.7	0.3	1.7
2020					
Jan.....	0.2	0.2	-0.5	0.2	1.7
Feb.....	-0.2	-0.3	-0.2	-0.3	1.3
Mar. ¹	0.1	0.4	-1.1	0.3	1.1
Apr. ¹	-1.7	0.0	-1.6	-2.2	-1.2
May.....	-0.4	0.6	0.5	-0.9	-1.6
June.....	0.2	-0.5	-0.2	0.4	-1.5
July.....	0.7	1.1	-0.4	0.8	-1.0

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Intermediate Demand by Production Flow

Stage 4 intermediate demand: Prices for stage 4 intermediate demand advanced 1.0 percent in July, the largest increase since the index began in December 2009. In July, prices for total services inputs to stage 4 intermediate demand climbed 1.0 percent, and the index for total goods inputs moved up 0.9 percent. (See table D.) Increases in the indexes for portfolio management; diesel fuel; machinery and equipment parts and supplies wholesaling; legal services; hardware, building materials, and supplies retailing; and gross rents for retail properties outweighed falling prices for meats, business loans (partial), and airline passenger services. (See table 6.) For the 12 months ended in July, the index for stage 4 intermediate demand decreased 0.4 percent.

Stage 3 intermediate demand: Prices for stage 3 intermediate demand rose 1.7 percent in July, the largest increase since the index began in December 2009. In July, prices for total goods inputs to stage 3 intermediate demand climbed 3.5 percent, and the index for total services moved up 0.3 percent. Advances in the indexes for raw milk, gasoline, diesel fuel, jet fuel, slaughter chickens, and machinery and equipment parts and supplies wholesaling outweighed falling prices for slaughter cattle, slaughter hogs, and arrangement of freight and cargo transportation. For the 12 months ended in July, the index for stage 3 intermediate demand dropped 5.2 percent.

Stage 2 intermediate demand: Prices for stage 2 intermediate demand were unchanged in July after increasing 1.9 percent in each of the prior two months. In July, a 0.8-percent advance in the index for total services inputs to stage 2 intermediate demand offset a 1.2-percent decrease in prices for total goods inputs. Prices for portfolio management, television advertising time sales, legal services, thermoplastic resins and materials, and diesel fuel increased, while the indexes for crude petroleum, airline passenger services, tax preparation and planning, natural gas, and oilseeds fell. For the 12 months ended in July, prices for stage 2 intermediate demand declined 5.6 percent.

Stage 1 intermediate demand: Prices for stage 1 intermediate demand advanced 1.4 percent in July, after increasing 1.7 percent in June. In July, the index for total goods inputs to stage 1 intermediate demand rose 2.6 percent, and prices for total services inputs inched up 0.1 percent. Increases in the indexes for diesel fuel, industrial chemicals, portfolio management, gasoline, commercial electric power, and corn outweighed falling prices for corrugated recyclable paper, airline passenger services, and carbon steel scrap. For the 12 months ended in July, the index for stage 1 intermediate demand declined 4.5 percent.

Table D. Monthly percent changes in selected intermediate demand price indexes by production flow, seasonally adjusted

Month	Stage 4 intermediate demand			Stage 3 intermediate demand			Stage 2 intermediate demand			Stage 1 intermediate demand		
	Total	Goods inputs	Ser-vices inputs	Total	Goods inputs	Ser-vices inputs	Total	Goods inputs	Ser-vices inputs	Total	Goods inputs	Ser-vices inputs
2019												
July.....	0.3	0.4	0.2	-0.1	-0.2	0.1	0.4	0.6	0.2	0.3	0.5	-0.2
Aug.....	0.1	-0.4	0.6	0.1	-0.4	0.5	-0.5	-1.4	0.3	-0.4	-1.0	0.7
Sept.....	0.1	0.1	0.2	-0.3	-0.9	0.3	0.3	0.5	0.1	-0.2	-0.5	0.3
Oct.....	-0.2	0.2	-0.6	0.5	1.6	-0.5	-0.7	-0.9	-0.5	-0.2	0.3	-0.8
Nov.....	0.1	0.3	-0.1	0.0	0.3	-0.2	1.1	2.4	0.2	0.2	0.6	-0.5
Dec.....	0.3	0.2	0.6	0.3	0.3	0.5	0.3	0.0	0.5	0.7	0.7	0.7
2020												
Jan.....	0.2	-0.1	0.2	-0.1	-0.2	0.0	-0.6	-1.6	0.2	0.1	0.4	-0.2
Feb.....	-0.5	-0.5	-0.4	-1.4	-2.6	-0.2	-2.0	-4.7	-0.2	-1.4	-2.3	-0.4
Mar. ¹	-0.3	-0.6	0.1	-1.8	-3.9	0.2	-2.8	-7.2	0.2	-1.4	-2.7	0.1
Apr. ¹	-1.8	-1.7	-1.8	-4.7	-9.0	-1.1	-4.5	-9.1	-1.8	-4.5	-6.6	-2.0
May.....	0.2	0.5	-0.2	0.3	1.2	-0.4	1.9	5.0	0.1	-0.6	-0.7	-0.7
June.....	0.3	0.3	0.5	0.4	0.8	0.0	1.9	4.9	0.3	1.7	3.2	0.3
July.....	1.0	0.9	1.0	1.7	3.5	0.3	0.0	-1.2	0.8	1.4	2.6	0.1

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The Producer Price Index for August 2020 is scheduled to be released on Thursday, September 10, 2020 at 8:30 a.m. (ET).

Coronavirus (COVID-19) Pandemic Impact on July 2020 Producer Price Index Survey Data

As was the case for March through June, the Producer Price Index (PPI) response rates for July were consistent with pre-COVID-19 response rates, and no changes in estimation procedures were necessary. Additional information is available at www.bls.gov/covid19/effects-of-covid-19-pandemic-on-producer-price-index.htm.

Technical Note

Brief Explanation of Producer Price Indexes

The Producer Price Index (PPI) of the Bureau of Labor Statistics (BLS) is a family of indexes that measures the average change over time in prices received (price changes) by producers for domestically produced goods, services, and construction. PPIs measure price change from the perspective of the seller. This contrasts with other measures, such as the Consumer Price Index (CPI). CPIs measure price change from the purchaser's perspective.

More than 10,000 PPIs for individual products and groups of products are released each month. PPIs are available for the products of virtually every industry in the mining and manufacturing sectors. Over time, new PPIs have been introduced for products of industries in the services and construction sectors of the U.S. economy. As of January 2018, the PPI covered 71 percent of services as measured by 2012 Census revenue, and 31 percent of construction.

More than 100,000 price quotations per month are organized into three sets of PPIs: (1) Final demand-Intermediate demand (FD-ID) indexes, (2) commodity indexes, and (3) indexes for the net output of industries and their products. The FD-ID structure organizes products by class of buyer and degree of fabrication as well as by stage of production. The commodity structure organizes products by similarity of end use or product type. The entire output of various industries is sampled to derive price indexes for the net output of industries and their products.

Final Demand–Intermediate Demand Indexes

The PPI FD-ID structure measures price change for goods, services, and construction sold to final demand and to intermediate demand. The FD-ID system replaced the PPI stage-of-processing (SOP) system as PPI's primary aggregation model with the release of data for January 2014. The FD-ID model expands coverage beyond that of the SOP system through the addition of services, construction, exports, and government purchases.

Compared with finished goods under the SOP system, the PPI for final demand goods includes nearly a 50 percent expansion of coverage. This increase can be traced to the addition of government purchases and exports. For overall final demand, expansion to include final demand services represents an even larger increase in coverage. In December 2017, final demand goods were about 33 percent of overall final demand, final demand services were roughly 65.5 percent, and final demand construction was about 1.5 percent of final demand. Within intermediate demand, coverage of services for intermediate demand resulted in about a 45 percent increase in coverage of the intermediate demand portion of the economy.

FD-ID indexes are constructed from commodity-based producer output price indexes. Commodities are allocated to aggregate indexes primarily based on the type of buyer. The main source of data used to determine the type of buyer is the "Use of commodities by industries, before redefinition," table

from the Benchmark Input-Output Accounts of the U.S. In many cases, the same commodity is purchased by different types of buyers. As a result, commodities are often included in several FD-ID indexes. For example, regular gasoline is purchased for personal consumption, export, government use, and business use. The PPI program publishes only one commodity index for regular gasoline (wpu057104), reflecting sales to all types of buyers, and this index is used in all aggregations regardless of whether the gasoline is sold for personal consumption, as an export, to government, or to businesses. Proportions based on BEA "Use of Commodities" data are used to allocate the correct portion of the total weight of gasoline to each use category. In cases when buyer type is an important price determining characteristic, indexes are created based on specific buyer type. For example, within the PPI category for loan services, separate indexes for consumer loans and business loans were constructed. For more information relating to the FD-ID structure, see "A new, experimental system of indexes from the PPI program" in the February 2011 *Monthly Labor Review*.

Final Demand: The final demand portion of the FD-ID structure measures price change for commodities sold for personal consumption, capital investment, government, and export. The system is composed of six main price indexes: final demand goods; final demand trade services; final demand transportation and warehousing services; final demand services less trade, transportation, and warehousing; final demand construction; and overall final demand.

The final demand goods index measures price change for both unprocessed and processed goods sold to final demand. Fresh fruits sold to consumers and computers sold for capital investment are examples of transactions included in the final demand goods price index. The final demand trade services index measures price change for the retailing and wholesaling of merchandise sold to final demand, generally without transformation. (Trade indexes measure changes in margins received by wholesalers and retailers.) The final demand transportation and warehousing services index tracks price change for transportation of passengers, as well as, transportation of cargo sold to final demand, and also includes prices for warehousing and storage of goods sold to final demand. The final demand services less trade, transportation, and warehousing index measures price change for all services other than trade and transportation sold to final demand. Publishing, banking, lodging, and health care are examples of these services. The final demand construction index tracks price change for new construction, as well as maintenance and repair construction sold to final demand. Construction of office buildings is an example of a commodity that would be included in the final demand construction index. Lastly, the overall final demand index tracks price change for all types of commodities sold to final demand by combining the five final demand component indexes described above.

Intermediate Demand: The intermediate demand portion of the FD-ID system tracks price change for goods, services, and construction products sold to businesses as inputs to

production, excluding capital investment. The system includes two parallel treatments of intermediate demand. The first treatment organizes intermediate demand commodities by type. The second organizes intermediate demand commodities into production stages, with the explicit goal of developing a forward-flow model of production and price change.

The intermediate demand by commodity type portion of the system organizes commodities by similarity of product. The system is composed of six main price indexes: unprocessed goods for intermediate demand; processed goods for intermediate demand; intermediate demand trade services; intermediate demand transportation and warehousing services; intermediate demand services less trade, transportation, and warehousing; and intermediate demand construction.

The unprocessed goods for intermediate demand price index measures price change for goods sold to businesses as inputs to production that have undergone no fabrication. Crude petroleum sold to refineries is an example of an unprocessed good sold to intermediate demand. The processed goods for intermediate demand index tracks price change for fabricated goods sold as business inputs. Examples include car parts sold to car manufacturers and gasoline sold to trucking companies. The index for trade services for intermediate demand measures price change for the services of retailing and wholesaling goods purchased by businesses as inputs to production. The intermediate demand transportation and warehousing services index measures price change for business travel, as well as, transportation and warehousing of cargo sold to intermediate demand. The intermediate demand services less trade, transportation, and warehousing index measures price change for services other than trade, transportation, and warehousing sold as inputs to production. Legal and accounting services purchased by businesses are examples of intermediate demand services excluding trade, transportation, and warehousing. Finally, the construction for intermediate demand index measures price change for construction purchased by firms as inputs to production. The index for construction for intermediate demand tracks price change for maintenance and repair construction purchased by firms.

The production flow treatment of intermediate demand is a stage-based system of price indexes. These indexes can be used to study price transmission across stages of production and final demand. This system is constructed in a manner that maximizes forward flow of production between stages, while minimizing back-flow of production. The production flow treatment contains four main indexes: intermediate demand stage 1, intermediate demand stage 2, intermediate demand stage 3, and intermediate demand stage 4.

Indexes for the four stages were developed by first assigning each industry in the economy to one of four stages of production, where industries assigned to the fourth stage primarily produce output consumed as final demand, industries in the third stage primarily produce output consumed by stage 4 industries, industries assigned to the second stage primarily produce output consumed by stage 3 industries, and industries assigned to the first stage produce output primarily consumed by stage 2 industries. The four indexes then track prices for the net inputs consumed by

industries in each of the four stages of production. The stage 4 intermediate demand index, for example, tracks price change for inputs consumed, but not produced, by industries included in the fourth stage of production. Hence, the index tracks price change in inputs to industries that primarily produce final demand commodities (stage 4 producers primarily produce commodities sold to final demand).

Examples of heavily weighted goods-producing industries in stage 4 include the manufacture of light trucks and utility vehicles, automobiles, and pharmaceuticals. Retail trade, food service and drinking places, and hospitals are examples of heavily weighted service industries included in stage 4. Stage 4 also includes all new construction industries. Examples of goods consumed by stage 4 industries include motor vehicle parts, commercial electric power, plastic construction products, biological products, and beef and veal. Engineering services, machinery and equipment wholesaling, long distance motor carrying, and legal services constitute examples of services consumed by stage 4 industries.

Examples of highly weighted goods-producing industries included in stage 3 are motor vehicle parts manufacturing, animal (except poultry) slaughtering and processing, and semiconductor manufacturing. Services industries classified in stage 3 include wholesale trade; insurance carriers; architecture, engineering, and related services; and hotels and motels. Examples of goods consumed by stage 3 industries include slaughter steers and heifers, industrial electric power, and hot rolled steel bars, plates, and structural shapes. Services commonly consumed by stage 3 industries include commissions from sales of property and casualty insurance, business loans, temporary help services, and administrative and general management consulting services.

Petroleum refineries; electricity generation, transmission, and distribution; natural gas distribution; cattle ranching and farming; and plastic materials and resin manufacturing are among the goods-based industries assigned to stage 2. Services industries that are heavily weighted in stage 2 include management of companies and enterprises; non-depository credit intermediation; insurance agencies and brokerages; and services to buildings and dwellings. Goods commonly purchased by stage 2 industries include crude oil, natural gas, formula feeds, and primary basic organic chemicals. Services that are heavily weighted in the intermediate demand stage 2 index are legal services, business loans, and cellular phone and other wireless telecommunication.

Goods producing industries in stage 1 include oil and gas extraction, paper mills, and grain farming. Real estate, legal services, and advertising services are examples of highly weighted services industries included in stage 1. Examples of goods consumed by stage 1 industries are commercial and industrial electric power and gasoline. Services commonly consumed by stage 1 industries include solid waste collection, chemicals and allied products wholesaling, and guestroom or unit rental. It should be noted that all inputs purchased by stage 1 industries are by definition produced either within stage 1 or by latter stages of processing, leaving stage 1 less useful for price transmission analysis. For additional information on industry stage assignments, see <https://www.bls.gov/ppi/industryflowstage.htm>.

Comparing the PPI with CPI

Although some data users utilize the PPI as a potential indicator of the Consumer Price Index (CPI), there are many reasons why the PPI and the CPI may diverge. The scope of the personal consumption portion of the PPI includes all marketable output sold by domestic producers for households. The scope of the CPI includes goods and services provided by business or government, where explicit user charges are paid by consumers. For example, the most heavily weighted item in the CPI, owners' equivalent rent, is excluded from the PPI. The scope of the CPI includes imports. The PPI excludes imports. The CPI only includes components of personal consumption directly paid for by the consumers, while the PPI includes components of personal consumption that may not be paid for by consumers. For example, the PPI includes medical services paid for by third parties. In contrast to CPI, PPI does not completely cover services. PPIs exclude taxes, since they do not represent producer revenue. Conversely, sales and other taxes paid by consumers are part of household expenditure and are included in the CPI. Additional technical differences between PPI and CPI also exist. For more information see "Comparing new final demand producer price indexes with other Government price indexes," *Monthly Labor Review*, January 2014, at <https://www.bls.gov/opub/mlr/>.

Commodity Indexes

The commodity classification of the PPI organizes goods, services, and construction by similarity of product or end use, disregarding industry of origin. With the release of data for July 2009, PPI expanded its commodity structure to include indexes for services and construction products. Prior to this date, the PPI commodity structure only included products from goods producing sectors. Table 9 of the *PPI Detailed Report* includes data for commodity indexes, organized in a hierarchal structure, including major groupings, subgroups, product classes, sub-product classes, and individual items.

Industry Net-Output Price Indexes

PPIs for the net output of industries and their products are grouped according to the North American Industry Classification System (NAICS). Prior to the release of January 2004, industry-based PPIs were published according to the Standard Industrial Classification (SIC) system. Industry price indexes are compatible with other economic time series organized by industry, such as data on employment, wages, and productivity. Table 11 of the *PPI Detailed Report* includes data for NAICS industries and industry groups (3-, 4-, 5-, and 6-digit codes), Census product classes (7- and 8-digit codes), products (9-digit codes), more detailed sub-products (11-digit codes), and, for some industries, indexes for other sources of revenue.

Indexes may represent one of three kinds of product categories. Every industry has primary product indexes that show changes in prices received by establishments classified in the industry for products made primarily, but not necessarily exclusively, by that industry. The industry classification of an establishment is determined by which products make up a plurality of its total shipment value. In

addition, most industries have secondary product indexes that show changes in prices received by establishments for products chiefly made in some other industry. Some industries have miscellaneous receipts indexes that track price changes for other sources of revenue received by establishments within the industry that are not derived from sales of their products; for example, resales of purchased materials, or revenues from parking lots owned by a manufacturing plant.

Data Collection

PPIs are constructed using selling prices reported by establishments of all sizes, selected by probability sampling, with the probability of selection proportionate to size. Individual items and transaction terms also are chosen by probability proportionate to size. BLS strongly encourages cooperating companies to supply actual transaction prices at the time of shipment to minimize the use of list prices. Prices submitted by survey respondents are effective on the Tuesday of the week containing the 13th day of the month. The survey is conducted online via the BLS Internet Data Collection Facility (IDCF).

Price data are provided on a voluntary and confidential basis; only sworn BLS employees are allowed access to individual company price reports. BLS publishes price indexes instead of actual prices. All PPIs are subject to revision 4 months after original publication to reflect the availability of late reports and corrections by respondents.

BLS periodically updates the PPI sample of survey respondents to better reflect current conditions when the structure, membership, technology, or product mix of an industry shifts significantly and to spread reporting burden among smaller firms. Information on these resampling efforts are noted in the *PPI News Release* and *PPI Detailed Report* in the months they occur.

As part of an ongoing effort to expand coverage to sectors of the economy other than mining and manufacturing, an increasing number of service and construction sector industries have been introduced into the PPI. The following list of industries introduced since the mid-1990s includes the month and year in which an article describing the industry's content appeared in the *PPI Detailed Report*.

Service and construction sector industries introduced into the Producer Price Index, by SIC or NAICS code and the *PPI Detailed Report* that announces their introduction

Title	Code	<i>PPI Detailed Report</i> Issue
	SIC	
Wireless telecommunications	4812	July 1999
Telephone communications, except radio telephone	4813	July 1995
Television broadcasting	4833	July 2002
Grocery stores	5411	July 2000
Meat and fish (seafood) markets	5421	July 2000
Fruit and vegetable markets	5431	July 2000
Candy, nut, and confectionery stores ...	5441	July 2000
Retail bakeries	5461	July 2000
Miscellaneous food stores	5499	July 2000
New car dealers	5511	July 2000

Title	Code	PPI Detailed Report Issue
SIC		
Gasoline service stations	5541	January 2002
Boat dealers	5551	January 2002
Recreational vehicle dealers	5561	January 2002
Miscellaneous retail	59	January 2001
Security brokers, dealers, and investment bankers	6211	January 2001
Investment advice	6282	January 2003
Life insurance carriers	6311	January 1999
Property and casualty insurance	6331	July 1998
Insurance agencies and brokerages	6412	January 2003
Operators and lessors of nonresidential buildings	6512	January 1996
Real estate agents and managers	6531	January 1996
Prepackaged software	7372	January 1998
Data processing services	7374	January 2002
Home health care services	8082	January 1997
Legal services	8111	January 1997
Engineering design, analysis, and consulting services	8711	January 1997
Architectural design, analysis, and consulting services	8712	January 1997
Premiums for property and casualty insurance	9331	July 1998
NAICS		
New Industrial building construction	236211	January 2008
New warehouse building construction ..	236221	July 2005
New school construction	236222	July 2006
New office construction	236223	January 2007
New health care building construction...	236224	January 2013
Concrete contractors, nonresidential building work	23811X	July 2008
Roofing contractors, nonresidential building work	23816X	July 2008
Electrical contractors, nonresidential building work	23821X	July 2008
Plumbing / HVAC contractors, nonresidential building work	23822X	July 2008
Merchant wholesalers, durable goods ..	423	July 2005
Merchant wholesalers, nondurable goods	424	July 2005
Electronics and appliance stores	443	January 2004
Building material and garden equipment and supplies dealers.....	444	January 2004
Sporting goods, hobby, book, and music stores	451	January 2004
General merchandise stores	452	January 2004
Miscellaneous store retailers	453	January 2004
Internet service providers	518111	July 2005
Internet publishing and web search portals	519130	January 2010
Commercial banking	522110	January 2005
Savings institutions	522120	January 2005
Direct health and medical insurance carriers	524114	July 2004
Construction, mining, and forestry machinery and equipment rental and leasing	532412	January 2005
Management consulting services	541610	January 2007

Title	Code	PPI Detailed Report Issue
NAICS		
Security guards and patrol services	561612	July 2005
Offices of dentists	621210	January 2011
Blood and organ banks	621991	January 2007
Amusement and theme parks	713110	July 2006
Golf courses and country clubs	713910	July 2006
Fitness and recreational sports centers .	713940	July 2005
Commercial machinery repair and maintenance.....	811310	July 2007

Weights

Weights for most commodity groupings of the PPI, as well as, weights for commodity-based aggregate indexes calculated from commodity groupings, such as FD-ID indexes, currently reflect 2012 values of shipments as reported in the *Census of Manufactures* and other sources. From January 2012 to December 2017, PPI weights were derived from 2007 shipment values. Industry indexes now are calculated under the 2017 NAICS structure utilizing 2012 value of shipment weights and 2007 net output ratios. The periodic update of the value weights used to calculate the PPI is done to more accurately reflect changes in production and marketing patterns in the economy.

Net output values of shipments are used as weights for industry indexes. Net output values refer to the value of shipments from establishments within the industry to buyers outside the industry. However, weights for commodity indexes are based on gross shipment values, including values of shipments between establishments within the same industry. As a result, broad commodity grouping indexes, such as the PPI for All Commodities (which is composed of major commodity groupings 01 through 15), are affected by the multiple counting of price change at successive stages of processing, which can lead to exaggerated or misleading signals about inflation. The intermediate demand by commodity type FD-ID indexes partially correct for this defect, but industry indexes, final demand FD-ID indexes, and intermediate demand by production flow FD-ID indexes consistently correct for this at all levels of aggregation. Therefore, industry and FD-ID indexes are more appropriate than broad commodity groupings for analysis of general price trends.

Price Index Reference Base

Effective with publication of January 1988 data, many important PPI series (including most commodity groups and individual items) were placed on a new reference base, 1982 = 100. From 1971 through 1987, the standard reference base for most PPI series was 1967 = 100. Except for rounding differences, the shift to the new reference base did not alter any previously published percent changes for affected PPI series. (See "Calculating Index Changes," below.) The 1982 reference base is not used for commodity indexes with a base later than December 1981 or for industry net output indexes

and their products. The FD-ID indexes typically have a reference base of November 2009 = 100.

For further information on the underlying concepts and methodology of the Producer Price Index, see chapter 14, “Producer Prices,” in the *BLS Handbook of Methods*. This chapter can be downloaded from the BLS Web site at <https://www.bls.gov/pub/hom/homch14.htm>.

Calculating Index Changes

Each PPI measures price changes from a reference period that equals 100.0. An increase of 5.5 percent from the reference period in the Final Demand Goods Price Index, for example, is shown as 105.5. This change also can be expressed in dollars, as follows: prices received by domestic producers of a sample of final demand goods have risen from \$100 in November 2009 to \$105.50. Likewise, a current index of 90.0 would indicate that prices received by producers of final demand goods are 10 percent lower than they were in November 2009.

Movements of price indexes from one month to another are usually expressed as percent changes, rather than as changes in index points. Index point changes are affected by the level of the index in relation to its base period, whereas percent changes are not. The following example shows the computation of index point and percent changes.

Index point change

Final Demand Goods Price Index	107.5
Less previous index	104.0
Equals index point change	3.5

Index percent change

Index point change	3.5
Divided by the previous index	104.0
Equals	0.034
Result multiplied by 100	0.034 x 100
Equals percent change	3.4

Seasonally Adjusted and Unadjusted Data

Because price data are used for different purposes by different groups, BLS publishes seasonally adjusted and unadjusted changes each month. Seasonally adjusted data are preferred for analyzing general price trends in the economy because these data eliminate the effect of changes that normally occur at about the same time, and in about the same magnitude, every year—such as price movements resulting from normal weather patterns, regular production and marketing cycles, model changeovers, seasonal discounts, and holidays. For these reasons, seasonally adjusted data more clearly reveal underlying trends. Unadjusted data are of primary interest to users who need information that can be related to actual dollar values of transactions. Individuals requiring this information include marketing specialists, purchasing agents, budget and cost analysts, contract specialists, and commodity traders. It is the unadjusted data that are generally cited when escalating long-term contracts such as purchasing agreements or real estate leases. For more

information, see *Price Adjustment Guide for Contracting Parties*, on the Web at <https://www.bls.gov/ppi/ppiescalation.htm>.

Seasonal adjustment is accomplished using X-13 ARIMA, a software package published by the U.S. Census Bureau. Each year, the seasonal status of most commodity indexes is reevaluated to reflect more recent price behavior. Industry net output indexes are not seasonally adjusted. For time series that exhibit seasonal pricing patterns, new seasonal factors are estimated and applied to the unadjusted data from the prior 5 years. Updated seasonally adjusted indexes replace the most recent 5 years of seasonal data.

Seasonal factors may be applied to series using either a direct or an aggregative method. Generally, commodity indexes are seasonally adjusted using direct seasonal adjustment, which produces a more complete elimination of seasonal movements than does the aggregative method. However, the direct seasonal adjustment process may not yield figures that possess additive consistency. Thus, a seasonally adjusted index for a broad category that is directly adjusted may not be logically consistent with all seasonally adjusted indexes for its components. Seasonal movements for FD-ID indexes are derived indirectly through an aggregative method that combines movements of a wide variety of subproduct class (six-digit) series.

Seasonally adjusted indexes can become problematic when previously stable and predictable price patterns abruptly change. If the new pattern persists, the seasonal adjustment method will eventually reflect it; if the pattern keeps shifting, however, seasonally adjusted data will become chronically troublesome. This problem occurs relatively infrequently for farm and food-related products, but has more often affected manufactured products such as automobiles and steel.

Since January 1988, the PPI has used Intervention Analysis Seasonal Adjustment methods to enhance the calculation of seasonal factors. With this technique, outlier values that may distort the seasonal pattern are removed from the data prior to applying the standard seasonal factor estimation procedure. For example, a possible economic cause for large price movements for petroleum-based products might have been the Persian Gulf War. In this case, intervention techniques allowed for better estimates of seasonally adjusted data. On the whole, very few series have required intervention. Out of almost 400 seasonally adjusted series, only 42 were subject to intervention in 2018.

For more information relating to seasonal adjustment methods, see “Summary of Changes to the PPI’s Seasonal Adjustment Methodology” in the January 1995 issue of *Producer Price Indexes*, and “PPI and CPI Seasonal Adjustment: an Update” in the July 2010 *Monthly Labor Review*.

Producer Price Index Data on the Internet

In 1995, the BLS began posting PPI series, news releases, and technical information to both a World Wide Web (WWW) site and a file transfer protocol (FTP) site. During the years following the introduction of PPI Internet services, use of these sites eclipsed more traditional methods of data dissemination, such as subscriptions to the *PPI Detailed Report*. There were more than 4 million instances of PPI data

and tables being downloaded from the BLS website during the 12 months ended December 31, 2017.

Retrieving PPI data from the PPI Web site

PPI data can be obtained from the WWW address (<https://www.bls.gov/ppi>). On this page, under the tab labeled “Featured PPI databases” links provide the following methods of data retrieval:

- **Top Picks** is a form-based application for both Industry Data and Commodity Data that allows the user to quickly obtain PPI time series data by selecting the high-level aggregate and other commonly requested time series, including the All Commodities Index and the FD-ID indexes (for example, Final Demand). Within each list, any one—or all—of the time series shown can be selected. A user can modify the date range and output options after executing the query, using the reformat button above the data output table.
- **One-Screen Data Search and Multi-Screen Data Search** are form-based query applications for both Industry Data and Commodity Data designed for users unfamiliar with the PPI coding structure. These applications guide a user through the PPI classification by listing index titles and do not require knowledge of commodity or industry codes. Data retrieved are based on a query formulated by selecting data characteristics from lists provided. Two options are available to create customized tables, depending on a user’s browser capability. The one-screen option is a JavaScript application that uses a single screen to guide a user through the available time series data. The second option is a multiple-screen, non-Java-based application. Both methods allow a user to browse the PPI coding structure and select multiple series. Users can modify the date range and output options after executing the query using the reformat button above the data output table.
- **Series Report** is a form-based application that allows users to input multiple, formatted PPI time series identifiers (commodity or industry codes) as inputs in extracting data according to a specified set of date ranges and output options. This application provides the most efficient path for users who are familiar with the format of PPI time series identifiers. There are five alphabetic prefixes used to create unique PPI time series identifiers: WP, WD, PC, PD, and ND. Each provides the user access to a different PPI database. Adding either a “u” (not seasonally adjusted) or an “s” (seasonally adjusted) to the end of these prefixes further specifies the type of data needed.

EXAMPLES

For commodity and FD-ID indexes, series identifiers combine a “wpu” prefix (not seasonally adjusted) or a “wps” prefix (seasonally adjusted) with a commodity code.

<u>Commodity code</u>	<u>Provides data for:</u>
wps141101	Passenger cars, seasonally adjusted
wpu141101	Passenger cars, not seasonally adjusted
wpufd4	Final demand, not seasonally adjusted
wpsid63	Services for intermediate demand, seasonally adjusted

For discontinued commodity indexes, series identifiers combine a “wdu” prefix (not seasonally adjusted) or a “wds” prefix (seasonally adjusted) with a commodity code.

<u>Commodity code</u>	<u>Provides data for:</u>
wds019	Other farm products, seasonally adjusted
wdu0635	Preparations, ethical (prescription), not seasonally adjusted
wdusi138011	Stainless steel mill products, not seasonally adjusted

Current price indexes grouped by industry according to NAICS have series identifiers that begin with the prefix “pcu.” After the prefix, there are 12 digits (the 6-digit industry code is listed twice) followed by up to 7 alphanumeric characters identifying product detail. Dashes are used as placeholders for higher-level industry group codes.

<u>Industry-product code, current NAICS series</u>	<u>Provides data for:</u>
pcu325---325---	Chemical manufacturing
pcu336110336110	Automobile and light duty motor vehicle manufacturing
pcu621111621111411	Offices of physicians, one- and two-physician practices and single-specialty group practices, general/family practice

Discontinued industry-product codes based on SIC combine a “pdu” prefix and “#” between the fourth and fifth characters of the product code. Series identifiers for the discontinued dataset use underscores as placeholders to complete a reference to an SIC industry group code of fewer than four digits. (All PPI industry-based indexes organized by SIC were discontinued with the introduction of NAICS in 2004.)

<u>Industry-product code, discontinued SIC series</u>	<u>Provides data for:</u>
pdu28_#	Chemicals and allied products
pdu331_#	Blast furnaces, steel works, and rolling and finishing mills
pdu3711#111	Passenger cars

Price indexes for discontinued series grouped by industry according to NAICS have identifiers that begin with the prefix “ndu”. After the prefix, there are 12

numeric digits (the 6-digit industry code is listed twice), and up to 7 additional alphanumeric characters that identify product detail. Dashes are used as placeholders for higher-level group codes.

*Industry-product code,
discontinued NAICS series*

ndu212231212231
ndu2122312122312
ndu212231212231214

Provides data for

Lead and zinc ore mining
Lead, zinc concentrates
Lead concentrates

- **Text Files** are best suited for users requiring access to either a large volume of time series data or other PPI-related documentation, such as seasonal factor tables and relative importance tables. The text files can be accessed at <https://download.bls.gov/> or directly from links on the “PPI Databases” page or the PPI homepage. Data and documentation available for download include the following:

Industry Data	<u>Directory:</u> /pub/time.series/pc
Industry Data - Discontinued (NAICS basis)	/pub/time.series/nd
(SIC basis)	/pub/time.series/pd
Commodity Data (incl. FD-ID)	/pub/time.series/wp
Commodity Data – Discontinued	/pub/time.series/wd
Special requests	/pub/special.requests/ppi

Additional information

The PPI homepage (<https://www.bls.gov/ppi>) contains additional information regarding PPI data and methodology. The top section of the homepage provides PPI news releases, both current and archived, as well as general PPI information. The “PPI Tables” section found beneath the statistics section provides relative importance and seasonal factor tables. The remaining sections offer special notices and publications pertaining to PPI methodology and applications.

For questions or comments regarding PPI data classification, methodology, or data availability on the Internet, call or e-mail the Section of Index Analysis and Public Information at (202) 691-7705 or ppi-info@bls.gov.

Table 1. Producer price indexes and percent changes for final demand¹
 [Nov 2009=100, unless otherwise indicated]

Grouping	Other index base	Relative Importance Dec. 2019 ²	Unadjusted index			Unadjusted percent change to July 2020 from:		Seasonally adjusted percent change from:		
			Mar. 2020 ³	June 2020 ³	July 2020 ³	July 2019	June 2020	Apr. to May	May to June	June to July
Final demand.....		100.000	118.1	117.5	118.2	-0.4	0.6	0.4	-0.2	0.6
Final demand goods.....		32.726	113.4	113.0	113.9	-2.0	0.8	1.6	0.2	0.8
Final demand foods.....		5.742	118.8	120.5	119.3	0.0	-1.0	6.0	-5.2	-0.5
Finished consumer foods ⁴	00/82	4.616	211.6	215.2	213.2	0.8	-0.9	5.7	-5.0	-0.5
Finished consumer foods, crude.....	00/82	0.483	208.8	207.0	206.2	2.1	-0.4	-5.6	2.9	1.5
Finished consumer foods, processed.....	00/82	4.133	212.3	216.6	214.4	0.7	-1.0	6.9	-5.8	-0.7
Government purchased foods.....		0.346	121.5	123.8	122.6	-0.6	-1.0	9.8	-8.9	-0.7
Foods for export.....		0.780	113.3	112.4	111.1	-4.1	-1.2	6.2	-5.0	-0.4
Final demand energy.....		5.343	91.5	89.1	94.1	-13.5	5.6	4.5	7.7	5.3
Finished consumer energy goods ⁴	00/82	4.364	146.4	145.7	151.9	-12.2	4.3	6.4	6.7	3.9
Government purchased energy.....		0.757	90.2	81.2	90.1	-17.6	11.0	-4.9	12.9	10.8
Energy for export.....		0.222	72.9	58.1	68.6	-27.3	18.1	-4.7	18.7	17.9
Final demand goods less foods and energy.....		21.641	118.3	117.9	118.2	0.5	0.3	0.0	0.1	0.3
Finished goods less foods and energy ⁴	00/82	12.841	209.7	209.8	210.1	1.1	0.1	0.1	0.0	0.2
Finished consumer goods less foods and energy.....	00/82	6.950	234.3	234.5	234.9	1.2	0.2	0.1	0.0	0.3
Nondurable consumer goods less foods and energy.....	00/82	4.282	303.3	303.2	304.1	1.7	0.3	-0.2	0.0	0.3
Durable consumer goods.....	00/82	2.668	163.3	163.7	163.8	0.5	0.1	0.4	0.0	0.2
Private capital equipment.....	00/82	5.891	178.9	178.9	179.1	1.0	0.1	0.2	0.1	0.2
Private capital equipment for manufacturing industries.....	00/82	1.328	182.8	182.8	182.8	0.9	0.0	-0.1	0.2	0.1
Private capital equipment for nonmanufacturing industries.....	00/82	4.563	177.5	177.5	177.8	1.1	0.2	0.3	-0.1	0.2
Government purchased goods, excluding foods and energy.....		2.242	116.0	115.5	115.8	0.5	0.3	-0.3	0.2	0.3
Government purchased goods excluding foods, energy, and capital equipment.....		1.313	117.7	116.9	117.2	-0.2	0.3	-0.3	0.1	0.3
Government purchased capital equipment.....		0.929	112.3	112.2	112.3	1.3	0.1	0.0	0.1	0.2
Goods for export, excluding foods and energy.....		6.558	113.2	112.0	112.4	-0.6	0.4	-0.2	0.4	0.4
Final demand services.....		65.540	120.0	119.2	119.8	0.3	0.5	-0.2	-0.3	0.5
Final demand trade services ⁵		20.290	120.8	120.5	121.3	1.2	0.7	-0.8	-1.8	0.8
Trade of finished goods ⁴		17.592	120.5	120.0	120.7	1.4	0.6	-0.9	-1.9	0.7
Trade of personal consumption goods.....		14.428	121.3	120.7	120.8	2.3	0.1	-0.9	-1.5	0.2
Trade of private capital equipment.....		3.164	115.6	115.6	118.9	-2.7	2.9	-1.1	-3.7	2.9
Trade of government purchased goods.....		0.735	122.1	122.9	124.8	0.2	1.5	0.2	-1.9	1.5
Trade of government purchased goods, excluding capital equipment.....		0.460	124.8	126.2	127.1	3.2	0.7	1.0	-0.3	0.7
Trade of government purchased capital equipment.....		0.275	117.2	117.1	120.4	-4.4	2.8	-1.2	-4.6	2.8
Trade of exports.....		1.963	123.5	124.4	126.3	0.5	1.5	0.4	-1.7	1.5
Final demand transportation and warehousing services.....		4.707	122.5	120.5	119.5	-5.5	-0.8	1.5	0.9	-0.8
Transportation of passengers for final demand.....		1.359	109.6	113.3	105.0	-14.6	-7.3	12.3	4.7	-6.9
Transportation of private passengers.....		0.928	109.6	113.3	105.0	-14.6	-7.3	12.1	4.8	-6.9
Transportation of government passengers.....		0.140	109.7	113.4	105.1	-14.6	-7.3	12.0	4.8	-6.9
Transportation of passengers for export.....		0.291	109.4	113.1	104.7	-14.8	-7.4	12.4	4.8	-7.0
Transportation and warehousing of goods for final demand.....		3.348	127.0	122.7	124.7	-2.0	1.6	-1.8	-0.5	1.6
Transportation and warehousing of finished goods ⁴		2.365	125.7	121.2	123.4	-2.1	1.8	-1.9	-0.5	1.7
Transportation and warehousing of personal consumption goods.....		1.852	126.1	121.7	123.8	-2.0	1.7	-1.9	-0.4	1.6
Transportation and warehousing of private capital equipment.....		0.513	124.2	119.5	121.7	-2.4	1.8	-2.1	-0.5	1.8
Transportation and warehousing of government purchased goods.....		0.246	126.0	122.2	124.0	-1.4	1.5	-1.5	-0.5	1.5
Transportation and warehousing of exports.....		0.737	131.5	127.6	129.1	-1.5	1.2	-1.5	-0.5	1.2
Final demand services less trade, transportation, and warehousing.....		40.543	119.4	118.5	119.2	0.4	0.6	0.0	0.3	0.4
Finished services less trade, transportation, and warehousing ⁴		36.086	119.9	119.2	119.9	0.6	0.6	0.2	0.3	0.4
Finished consumer services less trade, transportation, and warehousing.....		32.573	120.0	119.3	120.0	0.8	0.6	0.1	0.3	0.4
Private capital investment services less trade, transportation, and warehousing.....		3.513	119.6	119.3	120.0	0.2	0.6	0.2	-0.3	0.5
Government purchased services less trade, transportation, and warehousing.....		3.011	113.3	111.3	111.7	-1.1	0.4	-0.8	0.1	0.4
Gov. purchased services less trade, transportation, and warehousing, excl. capital investment.....		2.910	113.6	111.5	111.9	-1.1	0.4	-0.9	0.1	0.3
Government purchased capital investment services less trade, transportation, and warehousing.....		0.101	104.4	105.6	106.1	1.3	0.5	0.2	0.4	0.5
Services for export less trade, transportation, and warehousing.....		1.446	120.6	116.5	117.9	-2.1	1.2	-0.9	0.1	1.3
Final demand construction.....		1.733	129.6	129.9	130.7	2.1	0.6	-0.1	-0.3	0.6
Construction for private capital investment.....		1.170	129.8	130.0	131.1	2.3	0.8	-0.1	-0.3	0.8
Construction for government.....		0.563	129.0	129.5	129.9	1.6	0.3	-0.1	-0.4	0.3
Special groupings										
Final demand less exports.....	04/10	88.003	116.8	116.3	117.0	-0.3	0.6	0.4	-0.3	0.6
Final demand less government.....	04/10	91.960	116.7	116.2	116.8	-0.3	0.5	0.4	-0.3	0.6
Final demand less foods, food and nonalcoholic beverages for immediate consumption, and energy ⁶	04/10	88.390	118.6	117.9	118.4	0.3	0.4	-0.1	-0.3	0.4
Final demand less foods and energy ⁶	04/10	88.915	118.5	117.9	118.4	0.3	0.4	-0.1	-0.3	0.5

See footnotes at end of table.

Table 1. Producer price indexes and percent changes for final demand¹ — Continued
 [Nov 2009=100, unless otherwise indicated]

Grouping	Other index base	Relative importance Dec. 2019 ²	Unadjusted index			Unadjusted percent change to July 2020 from:		Seasonally adjusted percent change from:		
			Mar. 2020 ³	June 2020 ³	July 2020 ³	July 2019	June 2020	Apr. to May	May to June	June to July
Final demand less foods and food and nonalcoholic beverages for immediate consumption ⁶	04/10	93.733	116.4	115.6	116.4	-0.5	0.7	0.2	0.1	0.7
Final demand less foods ⁶	04/10	94.258	116.4	115.6	116.4	-0.5	0.7	0.1	0.1	0.7
Final demand less energy.....	04/10	94.657	118.3	117.8	118.2	0.3	0.3	0.3	-0.5	0.3
Final demand less trade services.....	01/10	79.710	116.2	115.5	116.1	-0.9	0.5	0.8	0.3	0.5
Final demand less distributive services ⁷	01/10	76.362	115.8	115.2	115.8	-0.9	0.5	0.9	0.3	0.5
Final demand goods less energy.....	01/10	27.383	117.4	117.4	117.4	0.4	0.0	1.3	-1.0	0.1
Final demand goods less foods.....	04/10	26.984	109.8	109.0	110.2	-2.5	1.1	0.8	1.4	1.1
Final demand services less trade services.....	04/10	45.250	118.8	117.8	118.3	-0.2	0.4	0.2	0.3	0.3
Final demand distributive services ⁷	04/10	23.638	119.4	118.6	119.5	0.8	0.8	-0.9	-1.7	0.9
Final demand goods plus final demand distributive services ⁷	04/10	56.364	114.3	113.7	114.6	-0.9	0.8	0.6	-0.7	0.9
Final demand less foods, energy, and trade services ⁶	08/13	68.625	111.3	110.6	111.0	0.1	0.4	0.1	0.3	0.3
Private and government purchased capital equipment.....	08/13	6.820	109.0	109.0	109.2	1.1	0.2	0.2	0.0	0.2
Private and government purchased capital investment services.....	08/13	7.566	108.6	108.2	110.0	-1.4	1.7	-0.6	-1.8	1.7
Total private and government purchased capital investment.....	08/13	14.386	110.2	110.1	111.0	0.0	0.8	-0.3	-0.8	0.9
Total finished ⁴	01/10	79.962	117.9	117.5	118.2	-0.1	0.6	0.5	-0.3	0.5
Total finished less foods, food and nonalcoholic beverages for immediate consumption, and energy ^{4, 6}	12/10	70.470	118.9	118.4	118.9	0.6	0.4	-0.1	-0.3	0.4
Total finished less foods and energy ^{4, 6}	01/10	70.982	119.8	119.3	119.8	0.7	0.4	-0.1	-0.3	0.4
Total finished less foods and food and nonalcoholic beverages for immediate consumption ^{4, 6}	12/10	74.834	116.5	116.0	116.7	-0.2	0.6	0.2	0.0	0.6
Total finished less foods ^{4, 6}	01/10	75.346	117.9	117.3	118.1	-0.2	0.7	0.2	0.1	0.6
Total finished less energy ⁴	01/10	75.598	119.7	119.3	119.8	0.7	0.4	0.3	-0.6	0.3
Finished goods ⁴	00/82	21.821	201.8	202.4	203.7	-1.8	0.6	2.3	0.0	0.7
Finished goods less energy ⁴	00/82	17.457	209.8	210.8	210.5	1.0	-0.1	1.6	-1.4	0.1
Finished goods, excluding foods ^{4, 6}	00/82	17.205	198.5	198.3	200.6	-2.4	1.2	1.4	1.5	1.1
Finished services ⁴	01/10	56.971	119.2	118.5	119.1	0.5	0.5	-0.2	-0.3	0.5
Private capital investment services.....	04/10	7.190	116.9	116.4	118.3	-1.3	1.6	-0.6	-1.7	1.6
Finished distributive services ^{4, 7}	04/10	19.957	118.7	117.7	118.6	0.9	0.8	-1.0	-1.8	0.8
Finished services less trade services ⁴	04/10	39.379	119.1	118.3	118.9	0.2	0.5	0.3	0.3	0.4
Finished services less distributive services ^{4, 7}	04/10	37.014	118.9	118.3	118.8	0.3	0.4	0.3	0.3	0.3
Total private capital investment (goods, services, and construction).....	04/10	14.251	116.4	116.2	117.3	0.0	0.9	-0.3	-0.9	0.9
Finished goods plus finished distributive services ⁴	04/10	41.778	115.5	115.2	116.0	-0.5	0.7	0.7	-0.9	0.8
Total exports.....	04/10	11.997	112.7	111.2	111.9	-1.8	0.6	0.4	-0.2	0.7
Goods for export.....	00/82	7.560	187.2	184.6	185.5	-1.8	0.5	0.4	0.1	0.7
Services for export.....	04/10	4.437	121.7	120.3	121.3	-1.7	0.8	0.3	-0.6	0.9
Total government purchases.....	04/10	8.040	111.5	109.9	111.1	-2.1	1.1	-0.2	0.4	1.0
Government purchased goods.....	00/82	3.345	180.3	176.5	180.2	-3.8	2.1	0.1	1.2	2.1
Government purchased services.....	04/10	4.132	115.1	113.6	114.1	-1.3	0.4	-0.4	-0.2	0.4
Total government purchased capital investment (goods, services, construction).....	08/13	1.868	111.3	111.5	112.1	0.5	0.5	-0.2	-0.8	0.6
Personal consumption.....	01/10	65.711	118.1	117.7	118.3	-0.1	0.5	0.7	-0.2	0.5
Personal consumption goods (finished consumer goods).....	00/82	15.930	211.1	211.9	213.8	-2.8	0.9	3.2	0.0	1.0
Personal consumption goods less energy.....	00/82	11.566	225.3	226.9	226.3	1.0	-0.3	2.3	-2.0	0.0
Personal consumption goods less foods.....	00/82	11.314	209.3	208.9	212.4	-4.2	1.7	2.1	2.3	1.6
Personal consumption nondurable goods less foods.....	00/82	8.646	229.6	229.0	234.0	-5.6	2.2	2.7	3.0	2.1
Personal consumption services.....	04/10	49.781	119.1	118.3	118.8	0.8	0.4	-0.1	-0.2	0.3
Personal consumption less trade services.....	04/10	51.283	117.0	116.6	117.3	-0.8	0.6	1.1	0.3	0.5
Personal consumption less distributive services ⁷	04/10	49.431	116.8	116.5	117.2	-0.7	0.6	1.2	0.3	0.4
Personal consumption less foods and energy.....	04/14	56.731	111.3	110.8	111.1	0.8	0.3	-0.1	-0.2	0.4
Personal consumption less foods, energy, and trade services ⁵	04/14	42.303	111.4	110.8	111.3	0.4	0.5	0.2	0.4	0.3
Personal consumption less foods, energy, and distributive services ⁷	04/14	40.451	111.6	111.2	111.6	0.5	0.4	0.3	0.4	0.3
Personal consumption goods plus personal consumption distributive services ⁷	08/13	32.210	105.5	105.3	105.9	-0.5	0.6	1.1	-0.8	0.7

¹ Further information about the Final Demand-Intermediate Demand Aggregation system is available online at <https://www.bls.gov/ppi/fdidaggregation.htm>.

² Comprehensive relative importance figures are initially computed after the publication of December indexes and are recalculated after final December indexes are available. Individual items and subtotals may not add exactly to totals because of rounding differences.

³ The indexes for March 2020 have been recalculated to incorporate late reports and corrections by respondents. All indexes are subject to revision 4 months after original publication.

⁴ PPI defines Total finished as including only the personal consumption and private capital investment portions of final demand.

⁵ Trade indexes measure changes in margins received by wholesalers and retailers.

⁶ The PPI definition of foods does not include food and beverages for immediate consumption. PPI defines food and beverages for immediate consumption as the service of preparing meals, snacks, and beverages to customer order for immediate on-premises and off-premises consumption.

⁷ Distributive services include transportation, warehousing, and trade of goods.

"-" Data not available.

Table 2. Producer price indexes and percent changes for intermediate demand by commodity type¹
 [Nov. 2009=100, unless otherwise indicated]

Grouping	Other index base	Relative Importance Dec. 2019 ²	Unadjusted index			Unadjusted percent change to July 2020 from:		Seasonally adjusted percent change from:		
			Mar. 2020 ³	June 2020 ³	July 2020 ³	July 2019	June 2020	Apr. to May	May to June	June to July
Processed goods										
Processed goods for intermediate demand.....	00/82	100.000	191.7	188.8	191.7	-3.6	1.5	0.1	0.9	1.5
Materials and components for manufacturing.....	00/82	45.302	181.4	177.7	178.4	-3.1	0.4	-0.2	-0.1	0.5
Materials for manufacturing.....		27.486	108.2	104.5	105.2	-5.2	0.7	-0.3	-0.2	0.9
Materials for food manufacturing.....	00/82	4.116	196.2	201.1	198.6	0.4	-1.2	8.4	-7.2	-0.9
Materials for nondurable manufacturing.....	00/82	12.764	205.6	192.2	194.6	-8.2	1.2	-2.4	1.9	1.5
Materials for durable manufacturing.....	00/82	10.606	195.9	191.9	193.7	-3.7	0.9	-1.4	0.5	1.0
Components for manufacturing.....	00/82	17.816	156.1	156.2	156.1	0.3	-0.1	0.0	0.1	0.0
Components for nondurable manufacturing.....		0.749	114.7	114.4	114.5	-0.8	0.1	-0.3	-0.3	0.1
Components for durable manufacturing.....		17.067	110.5	110.5	110.5	0.4	0.0	0.0	0.1	0.0
Materials and components for construction.....	00/82	9.176	254.3	253.9	255.1	1.1	0.5	0.0	0.6	0.5
Materials for construction.....		3.998	127.4	126.8	128.2	2.4	1.1	0.1	0.6	1.3
Components for construction.....		5.178	124.2	124.4	124.3	0.1	-0.1	-0.2	0.4	-0.1
Processed fuels and lubricants for intermediate demand.....	00/82	18.250	153.5	149.0	160.5	-12.3	7.7	0.1	7.2	7.4
Processed fuels and lubricants to manufacturing industries.....	00/82	4.574	172.3	171.8	181.5	-8.0	5.6	0.2	-0.2	4.7
Processed fuels and lubricants to nonmanufacturing industries.....	00/82	13.676	147.8	142.0	154.1	-13.8	8.5	0.0	10.2	8.5
Containers for intermediate demand.....	00/82	2.978	236.0	234.6	235.0	-0.8	0.2	-0.2	-0.3	0.2
Supplies for intermediate demand.....	00/82	24.293	201.2	201.1	201.3	0.0	0.1	0.7	-0.7	0.1
Supplies to manufacturing industries.....	00/82	2.956	199.2	197.7	197.6	-2.0	-0.1	-0.5	-0.1	-0.1
Supplies to nonmanufacturing industries.....	00/82	21.337	199.9	200.1	200.3	0.4	0.1	0.9	-0.7	0.2
Supplies to nonmanufacturing industries, feeds.....	00/82	1.663	179.1	177.8	175.8	0.3	-1.1	-0.1	-2.1	-1.5
Supplies to nonmanufacturing industries, other than feeds.....	00/82	19.674	203.6	203.8	204.3	0.3	0.2	1.0	-0.6	0.3
Unprocessed goods										
Unprocessed goods for intermediate demand.....	00/82	100.000	160.9	157.0	154.8	-16.3	-1.4	8.9	3.1	-0.7
Unprocessed foodstuffs and feedstuffs.....	00/82	39.497	159.6	143.2	147.6	-11.8	3.1	4.5	-5.6	4.3
Unprocessed nonfood materials.....	00/82	60.503	153.8	159.3	152.5	-19.1	-4.3	12.4	9.7	-4.0
Unprocessed nonfood materials except fuel.....	00/82	43.921	199.5	211.4	199.9	-18.5	-5.4	9.3	19.2	-5.1
Unprocessed nonfood materials except fuel to manufacturing industries.....	00/82	41.986	181.8	193.1	182.0	-19.5	-5.7	10.1	20.4	-5.4
Unprocessed nonfood materials except fuel to nonmanufacturing industries.....	00/82	1.935	278.7	280.6	279.7	2.9	-0.3	-0.2	0.3	-0.1
Unprocessed fuel.....	00/82	16.582	84.0	81.6	80.9	-21.0	-0.9	20.2	-11.5	-0.7
Unprocessed fuel to manufacturing industries.....	00/82	0.636	133.1	130.6	130.2	-13.3	-0.3	9.1	-5.6	-0.1
Unprocessed fuel to nonmanufacturing industries.....	00/82	15.946	84.2	81.8	81.0	-21.4	-1.0	20.7	-11.7	-0.9
Services										
Services for intermediate demand.....		100.000	122.2	119.9	120.5	-1.0	0.5	-0.4	0.2	0.7
Trade services for intermediate demand ⁴		19.137	127.6	128.0	129.4	3.9	1.1	0.6	-0.5	1.1
Trade services for manufacturing industries.....	12/12	9.445	115.7	115.7	116.6	3.3	0.8	0.8	-0.7	0.9
Trade services for nonmanufacturing industries.....	12/12	9.692	114.3	115.2	116.6	4.4	1.2	0.4	-0.4	1.4
Transportation and warehousing services for intermediate demand.....		12.260	129.2	127.2	126.8	-2.2	-0.3	0.5	-0.2	-0.4
Transportation of passengers for intermediate demand.....		1.212	109.8	113.4	105.2	-14.5	-7.2	12.1	4.7	-6.8
Transportation of passengers for manufacturing industries.....		0.202	109.4	113.1	104.7	-14.8	-7.4	12.4	4.8	-7.0
Transportation of passengers for nonmanufacturing industries.....		1.010	109.8	113.5	105.3	-14.4	-7.2	12.0	4.7	-6.8
Transportation and warehousing of goods for intermediate demand.....		11.048	131.2	128.6	129.0	-0.9	0.3	-0.5	-0.5	0.2
Transportation and warehousing of goods for manufacturing industries.....	12/12	1.684	108.6	105.7	107.0	-1.7	1.2	-1.2	-0.4	1.1
Transportation and warehousing of goods for nonmanufacturing industries.....	12/12	9.364	117.2	115.1	115.2	-0.9	0.1	-0.3	-0.7	0.1
Services less trade, transportation, and warehousing for intermediate demand.....		68.603	119.4	116.4	117.1	-2.0	0.6	-0.9	0.4	0.8
Services less trade, transportation, and warehousing for manufacturing industries.....		2.325	111.4	111.0	111.0	1.0	0.0	-0.3	-0.1	0.1
Services less trade, transportation, and warehousing for nonmanufacturing industries.....		66.278	119.7	116.5	117.2	-2.2	0.6	-0.9	0.5	0.7
Construction										
Construction for intermediate demand.....		100.000	119.6	121.0	119.5	-0.1	-1.2	0.1	0.1	-1.2
Special groupings										
Processed materials less foods and feeds.....	00/82	91.260	191.6	188.1	191.5	-4.1	1.8	-0.5	1.6	1.8
Processed foods and feeds.....	00/82	8.740	192.5	196.5	194.8	1.0	-0.9	6.4	-5.5	-0.7
Processed energy goods.....	00/82	18.250	154.2	149.7	161.2	-12.3	7.7	0.1	7.2	7.4
Processed materials less energy.....	00/82	81.750	198.8	196.4	197.1	-1.5	0.4	0.1	-0.2	0.4
Processed materials less foods and energy.....	00/82	73.010	199.2	196.1	197.0	-1.9	0.5	-0.6	0.5	0.5
Intermediate distributive services ⁵	04/10	30.185	126.4	125.8	126.8	2.1	0.8	0.2	-0.6	0.8
Processed goods plus intermediate distributive services.....	04/10	-	110.2	108.9	110.3	-2.0	1.3	0.2	0.5	1.3
Unprocessed materials less agricultural products.....	00/82	57.606	152.7	159.3	152.1	-19.3	-4.5	13.3	9.6	-4.4

See footnotes at end of table.

Table 2. Producer price indexes and percent changes for intermediate demand by commodity type¹ — Continued

[Nov. 2009=100, unless otherwise indicated]

Grouping	Other index base	Relative Importance Dec. 2019 ²	Unadjusted index			Unadjusted percent change to July 2020 from:		Seasonally adjusted percent change from:		
			Mar. 2020 ³	June 2020 ³	July 2020 ³	July 2019	June 2020	Apr. to May	May to June	June to July
Unprocessed energy materials ⁶	00/82	38.339	94.7	102.7	95.1	-31.9	-7.4	26.5	16.8	-7.4
Unprocessed materials less energy.....	00/82	61.661	204.9	190.1	193.4	-6.6	1.7	3.0	-3.1	2.7
Unprocessed nonfood materials less energy ⁷	00/82	22.164	339.9	333.0	331.9	3.2	-0.3	0.6	1.1	0.3

¹ Further information about the Final Demand-Intermediate Demand Aggregation system is available online at <https://www.bls.gov/ppi/fdidaggregation.htm>

² Comprehensive relative importance figures are initially computed after the publication of December indexes and are recalculated after final December indexes are available. Individual items and subtotals may not add exactly to totals because of rounding differences.

³ The indexes for March 2020 have been recalculated to incorporate late reports and corrections by respondents. All indexes are subject to revision 4 months after original publication.

⁴ Trade indexes measure changes in margins received by wholesalers and retailers.

⁵ Includes intermediate trade, transportation, and warehousing services.

⁶ Includes crude petroleum.

⁷ Excludes crude petroleum.

"-" Data not available.

Table 3. Producer price indexes and percent changes for intermediate demand by production flow¹
 [Nov. 2009=100, unless otherwise indicated]

Grouping	Other index base	Relative Importance Dec. 2019 ²	Unadjusted index			Unadjusted percent change to July 2020 from:		Seasonally adjusted percent change from:		
			Mar. 2020 ³	June 2020 ³	July 2020 ³	July 2019	June 2020	Apr. to May	May to June	June to July
Stage 4										
Stage 4 intermediate demand.....		100.000	118.8	117.8	118.9	-0.4	0.9	0.2	0.3	1.0
Inputs to stage 4 goods producers.....		30.489	115.1	114.8	115.2	-0.2	0.3	0.4	-0.2	0.4
Goods.....		22.493	111.8	111.4	111.6	-1.1	0.2	0.3	-0.2	0.3
Foods.....		2.649	111.9	112.6	112.2	-1.0	-0.4	4.9	-3.1	0.9
Energy.....		1.056	106.2	111.2	113.8	-2.7	2.3	-1.6	3.3	1.3
Goods excluding foods and energy.....		18.788	111.9	111.1	111.2	-0.9	0.1	-0.3	0.1	0.2
Services.....		7.996	125.8	125.5	126.8	2.3	1.0	1.0	-0.6	1.1
Trade services.....		6.415	130.0	129.7	131.4	2.8	1.3	1.2	-0.6	1.3
Transportation and warehousing services.....		0.238	118.9	117.1	115.3	-7.4	-1.5	2.5	1.3	-1.3
Transportation of passengers.....		0.089	109.4	113.1	104.7	-14.8	-7.4	12.4	4.8	-7.0
Transportation and warehousing of goods.....		0.149	124.1	119.0	121.2	-3.0	1.8	-2.1	-0.5	1.8
Services less trade, transportation, and warehousing.....		1.343	112.4	112.2	112.3	1.4	0.1	-0.2	-0.3	0.2
Inputs to stage 4 services producers.....		50.208	121.0	119.9	121.0	-0.4	0.9	0.2	0.3	1.0
Goods.....		13.251	115.4	116.7	117.8	0.3	0.9	1.7	-0.8	1.0
Foods.....		2.883	119.3	123.7	123.5	2.1	-0.2	9.7	-6.4	0.2
Energy.....		2.212	100.9	104.0	109.3	-3.7	5.1	-1.6	4.2	4.8
Goods excluding foods and energy.....		8.156	120.9	120.6	121.0	0.8	0.3	-0.1	0.2	0.2
Services.....		36.807	122.9	120.9	122.0	-0.7	0.9	-0.4	0.8	1.0
Trade services.....		4.268	123.4	125.4	126.2	3.8	0.6	0.8	0.2	0.6
Transportation and warehousing services.....		2.330	123.4	121.8	121.2	-3.1	-0.5	1.0	0.1	-0.4
Transportation of passengers.....		0.377	109.2	113.0	104.6	-14.8	-7.4	12.4	4.8	-7.0
Transportation and warehousing of goods.....		1.953	126.3	123.6	124.5	-0.9	0.7	-0.6	-0.7	0.7
Services less trade, transportation, and warehousing.....		30.209	122.4	119.8	121.1	-1.1	1.1	-0.7	0.9	1.1
Construction.....		0.150	119.6	121.0	119.5	-0.1	-1.2	0.1	0.1	-1.2
Inputs to stage 4 construction producers.....		19.303	118.6	116.9	119.1	-0.8	1.9	-0.3	1.3	1.9
Goods.....		13.188	117.5	115.6	118.1	-2.1	2.2	-0.4	2.1	2.2
Energy.....		1.637	72.8	62.1	76.2	-21.8	22.7	-4.5	24.2	22.6
Goods excluding foods and energy.....		11.551	125.6	125.3	125.7	0.7	0.3	-0.1	0.5	0.3
Services.....		6.115	120.6	119.3	120.8	1.9	1.3	-0.3	-0.3	1.4
Trade services.....		3.287	122.4	122.5	124.8	5.0	1.9	0.7	-0.7	2.2
Transportation and warehousing services.....		0.837	123.1	118.5	120.3	-3.2	1.5	-1.7	-0.3	1.4
Transportation of passengers.....		0.043	111.6	114.8	107.5	-12.6	-6.4	10.4	4.1	-6.0
Transportation and warehousing of goods.....		0.794	123.7	118.7	120.9	-2.7	1.9	-2.2	-0.5	1.9
Services less trade, transportation, and warehousing.....		1.991	118.7	116.4	116.4	-1.1	0.0	-1.3	0.1	0.0
Stage 3										
Stage 3 intermediate demand.....		100.000	114.0	109.8	111.6	-5.2	1.6	0.3	0.4	1.7
Inputs to stage 3 goods producers.....		48.172	116.5	111.1	113.2	-5.0	1.9	0.4	-1.6	2.1
Goods.....		38.047	112.7	106.0	108.4	-7.0	2.3	0.5	-2.1	2.5
Foods.....		11.760	120.5	104.3	110.2	-12.7	5.7	4.6	-9.2	6.8
Energy.....		1.866	91.5	85.6	91.5	-14.3	6.9	-1.9	1.5	5.6
Goods excluding foods and energy.....		24.421	113.2	110.5	111.0	-3.7	0.5	-1.1	0.9	0.5
Services.....		10.059	124.4	124.5	125.1	2.6	0.5	0.6	-0.3	0.6
Trade services.....		8.279	124.7	124.9	125.7	3.2	0.6	0.7	-0.6	0.7
Transportation and warehousing services.....		0.633	126.0	123.6	123.1	-2.4	-0.4	-0.8	0.0	-0.4
Transportation of passengers.....		0.032	113.1	116.2	109.2	-11.8	-6.0	9.7	3.9	-5.6
Transportation and warehousing of goods.....		0.601	126.6	123.9	123.7	-1.9	-0.2	-1.3	-0.2	-0.2
Services less trade, transportation, and warehousing.....		1.147	114.2	114.2	114.8	1.1	0.5	-0.3	1.2	0.3
Construction.....		0.066	119.6	121.0	119.5	-0.1	-1.2	0.1	0.1	-1.2
Inputs to stage 3 services producers.....		49.739	112.8	109.9	111.1	-5.2	1.1	0.3	2.0	1.1
Goods.....		10.367	84.8	79.8	84.2	-18.5	5.5	5.6	11.4	5.6
Foods.....		0.003	132.7	138.5	143.3	8.0	3.5	-3.1	10.7	3.6
Energy.....		7.027	73.8	67.1	73.1	-26.3	8.9	10.2	20.8	9.2
Goods excluding foods and energy.....		3.337	110.2	109.7	109.7	-0.6	0.0	0.0	-0.1	0.1
Services.....		38.296	121.2	119.0	119.2	-1.5	0.2	-0.7	0.1	0.1
Trade services.....		3.486	140.2	140.4	141.5	3.5	0.8	0.1	-1.2	0.9
Transportation and warehousing services.....		8.434	136.0	134.0	133.4	-0.8	-0.4	0.0	-0.7	-0.5
Transportation of passengers.....		0.036	111.6	114.9	107.4	-12.8	-6.5	10.5	4.2	-6.1
Transportation and warehousing of goods.....		8.398	136.3	134.3	133.7	-0.8	-0.4	0.0	-0.8	-0.5
Services less trade, transportation, and warehousing.....		26.376	117.0	114.4	114.7	-2.4	0.3	-1.0	0.5	0.3
Construction.....		1.076	119.6	121.0	119.5	-0.1	-1.2	0.1	0.1	-1.2
Inputs to stage 3 construction producers.....		2.090	99.0	91.8	102.5	-7.3	11.7	-4.5	8.3	11.6
Goods.....		1.648	88.8	80.1	92.1	-10.6	15.0	-6.5	12.0	14.9
Energy.....		1.011	68.3	55.9	72.8	-18.5	30.2	-14.0	27.9	30.2
Goods excluding foods and energy.....		0.637	127.8	127.5	128.5	1.3	0.8	-0.2	0.4	0.8
Services.....		0.442	128.2	128.6	131.2	4.6	2.0	0.6	-0.5	2.3
Trade services.....		0.402	130.5	131.1	134.0	5.2	2.2	0.6	-0.5	2.7
Transportation and warehousing services.....		0.001	109.4	113.1	104.7	-14.8	-7.4	12.4	4.8	-7.0

See footnotes at end of table.

Table 3. Producer price indexes and percent changes for intermediate demand by production flow¹ — Continued
 [Nov. 2009=100, unless otherwise indicated]

Grouping	Other index base	Relative Importance Dec. 2019 ²	Unadjusted index			Unadjusted percent change to July 2020 from:		Seasonally adjusted percent change from:		
			Mar. 2020 ³	June 2020 ³	July 2020 ³	July 2019	June 2020	Apr. to May	May to June	June to July
Transportation of passengers.....		0.001	109.4	113.1	104.7	-14.8	-7.4	12.4	4.8	-7.0
Services less trade, transportation, and warehousing.....		0.039	107.6	106.9	106.4	-0.7	-0.5	-0.2	0.2	-0.5
Stage 2										
Stage 2 intermediate demand.....		100.000	100.7	99.9	99.8	-5.6	-0.1	1.9	1.9	0.0
Inputs to stage 2 goods producers.....		43.322	82.3	82.5	81.4	-12.8	-1.3	4.6	4.6	-1.5
Goods.....		36.506	75.6	76.0	74.8	-15.0	-1.6	5.9	5.4	-1.6
Foods.....		3.765	112.6	108.6	108.7	-4.4	0.1	0.0	-0.7	-0.5
Energy.....		14.107	40.3	44.1	41.0	-33.4	-7.0	31.0	18.5	-7.0
Goods excluding foods and energy.....		18.634	110.7	107.6	108.5	-4.1	0.8	-1.7	0.8	0.9
Services.....		6.343	122.8	121.3	121.6	-0.7	0.2	-0.1	-0.3	0.0
Trade services.....		0.444	131.0	132.0	131.4	5.7	-0.5	-1.7	-1.9	-0.4
Transportation and warehousing services.....		3.628	141.6	139.0	139.5	-2.7	0.4	0.0	-0.4	-0.1
Transportation of passengers.....		0.284	110.8	114.3	106.4	-13.7	-6.9	11.4	4.5	-6.5
Transportation and warehousing of goods.....		3.344	143.0	139.8	141.2	-1.7	1.0	-0.8	-0.7	0.4
Services less trade, transportation, and warehousing.....		2.271	110.3	109.5	109.9	1.3	0.4	0.1	-0.1	0.4
Construction.....		0.473	119.6	121.0	119.5	-0.1	-1.2	0.1	0.1	-1.2
Inputs to stage 2 services producers.....		56.676	118.7	116.9	117.7	-0.3	0.7	0.1	0.3	0.9
Goods.....		4.808	110.4	109.0	110.6	-1.3	1.5	-0.4	0.8	1.6
Foods.....		0.067	94.0	83.8	83.4	-17.9	-0.5	-3.5	3.0	3.7
Energy.....		0.413	89.0	81.1	93.6	-14.3	15.4	-4.6	13.9	15.3
Goods excluding foods and energy.....		4.328	112.6	112.0	112.6	0.2	0.5	0.0	0.0	0.5
Services.....		50.364	119.5	117.6	118.4	-0.1	0.7	0.2	0.3	0.9
Trade services.....		1.109	126.2	127.5	132.0	6.9	3.5	0.8	-0.6	3.9
Transportation and warehousing services.....		6.613	124.6	123.7	122.6	-2.0	-0.9	1.4	0.3	-0.8
Transportation of passengers.....		1.044	109.8	113.4	105.1	-14.6	-7.3	12.1	4.8	-6.9
Transportation and warehousing of goods.....		5.569	127.8	126.0	126.3	0.3	0.2	-0.2	-0.4	0.2
Services less trade, transportation, and warehousing.....		42.642	119.3	117.1	118.1	0.0	0.9	0.0	0.3	1.0
Construction.....		1.504	119.6	121.0	119.5	-0.1	-1.2	0.1	0.1	-1.2
Stage 1										
Stage 1 intermediate demand.....		100.000	111.0	108.0	109.5	-4.5	1.4	-0.6	1.7	1.4
Inputs to stage 1 goods producers.....		45.339	105.0	102.3	102.9	-4.7	0.6	0.2	1.9	0.8
Goods.....		34.533	99.6	96.2	97.0	-6.7	0.8	0.2	2.7	1.0
Foods.....		2.709	110.4	104.7	103.2	-10.6	-1.4	1.3	-2.2	0.5
Energy.....		6.096	79.4	77.8	81.7	-17.0	5.0	2.7	11.3	4.6
Goods excluding foods and energy.....		25.728	105.2	101.5	101.8	-3.9	0.3	-0.3	1.6	0.4
Services.....		10.800	123.7	123.9	123.8	2.1	-0.1	0.2	-0.5	0.1
Trade services.....		7.871	128.9	130.1	130.1	4.4	0.0	0.1	-0.6	0.2
Transportation and warehousing services.....		1.325	123.3	119.9	119.7	-5.6	-0.2	0.5	0.3	0.0
Transportation of passengers.....		0.236	109.4	113.1	104.7	-14.8	-7.4	12.4	4.8	-7.0
Transportation and warehousing of goods.....		1.089	125.8	120.9	122.5	-3.6	1.3	-1.5	-0.5	1.3
Services less trade, transportation, and warehousing.....		1.604	102.3	100.9	100.8	-2.5	-0.1	0.7	-0.6	-0.1
Construction.....		0.006	119.6	121.0	119.5	-0.1	-1.2	0.1	0.1	-1.2
Inputs to stage 1 services producers.....		47.556	116.0	112.4	114.7	-5.0	2.0	-1.5	1.8	2.1
Goods.....		15.313	101.0	97.3	104.1	-5.9	7.0	-2.8	5.1	6.9
Foods.....		0.089	96.1	95.8	96.0	5.1	0.2	0.0	0.0	0.2
Energy.....		7.780	88.6	82.3	94.7	-11.3	15.1	-6.1	12.5	14.8
Goods excluding foods and energy.....		7.444	117.4	116.6	117.0	-0.3	0.3	-0.3	0.2	0.3
Services.....		32.238	123.6	119.9	119.9	-4.5	0.0	-1.1	0.5	0.0
Trade services.....		4.567	126.6	126.8	127.6	3.7	0.6	0.1	-1.0	0.8
Transportation and warehousing services.....		2.649	121.9	123.5	117.8	-10.2	-4.6	6.9	2.5	-4.4
Transportation of passengers.....		1.681	109.3	113.0	104.6	-14.8	-7.4	12.4	4.8	-6.9
Transportation and warehousing of goods.....		0.968	133.4	130.7	130.8	-2.2	0.1	-0.3	-1.1	-0.2
Services less trade, transportation, and warehousing.....		25.022	123.3	118.4	118.8	-5.4	0.3	-2.0	0.6	0.3
Construction.....		0.005	119.6	121.0	119.5	-0.1	-1.2	0.1	0.1	-1.2
Inputs to stage 1 construction producers.....		7.104	120.3	119.2	120.9	-0.2	1.4	0.1	0.8	1.5
Goods.....		4.710	118.1	116.5	118.1	-2.1	1.4	-0.1	1.6	1.4
Energy.....		0.485	75.5	66.6	76.7	-24.0	15.2	2.4	18.8	14.7
Goods excluding foods and energy.....		4.225	125.7	125.1	125.4	0.6	0.2	-0.2	0.4	0.3
Services.....		2.394	124.4	124.7	126.4	3.6	1.4	0.5	-0.3	1.7
Trade services.....		1.741	126.3	127.1	129.7	5.4	2.0	1.0	-0.6	2.4
Transportation and warehousing services.....		0.096	110.9	108.5	106.6	-7.9	-1.8	2.6	0.7	-1.7
Transportation of passengers.....		0.025	109.4	113.1	104.7	-14.8	-7.4	12.4	4.8	-7.0
Transportation and warehousing of goods.....		0.071	112.5	108.1	108.3	-5.4	0.2	-0.2	-0.5	0.1
Services less trade, transportation, and warehousing.....		0.557	118.9	117.7	117.7	-0.1	0.0	-1.1	0.2	0.0
Special groupings										
Total goods inputs to stage 4 intermediate demand.....	04/10	48.932	111.5	111.2	112.2	-1.0	0.9	0.5	0.3	0.9

See footnotes at end of table.

Table 3. Producer price indexes and percent changes for intermediate demand by production flow¹ — Continued

[Nov. 2009=100, unless otherwise indicated]

Grouping	Other index base	Relative Importance Dec. 2019 ²	Unadjusted index			Unadjusted percent change to July 2020 from:		Seasonally adjusted percent change from:		
			Mar. 2020 ³	June 2020 ³	July 2020 ³	July 2019	June 2020	Apr. to May	May to June	June to July
Total services inputs to stage 4 intermediate demand.....	04/10	50.918	122.5	120.8	122.0	0.1	1.0	-0.2	0.5	1.0
Total construction inputs to stage 4 intermediate demand.....	04/10	0.150	118.6	120.0	118.6	0.0	-1.2	0.1	0.1	-1.2
Total foods inputs to stage 4 intermediate demand.....	04/10	5.532	112.6	115.1	114.8	0.6	-0.3	7.4	-4.9	0.5
Total energy goods inputs to stage 4 intermediate demand.....	04/10	4.905	86.7	85.3	92.8	-9.3	8.8	-2.2	8.2	8.3
Total goods less foods and energy inputs to stage 4 intermediate demand. ...	04/10	38.495	115.9	115.3	115.6	0.0	0.3	-0.2	0.3	0.2
Total goods inputs to stage 3 intermediate demand.....	04/10	50.062	99.8	93.7	96.8	-9.7	3.3	1.2	0.8	3.5
Total services inputs to stage 3 intermediate demand.....	04/10	48.797	120.5	118.7	119.1	-0.6	0.3	-0.4	0.0	0.3
Total construction inputs to stage 3 intermediate demand.....	04/10	1.142	118.6	120.0	118.6	0.0	-1.2	0.1	0.1	-1.2
Total goods inputs to stage 3 intermediate demand.....	04/10	11.763	107.3	92.9	98.1	-12.8	5.6	4.8	-9.2	6.8
Total energy goods inputs to stage 3 intermediate demand.....	04/10	9.904	73.4	66.5	73.4	-23.2	10.4	4.7	16.4	10.2
Total goods less foods and energy inputs to stage 3 intermediate demand. ...	04/10	28.395	108.1	105.8	106.2	-3.3	0.4	-0.9	0.8	0.5
Total goods inputs to stage 2 intermediate demand.....	04/10	41.314	75.2	75.4	74.5	-13.5	-1.2	5.0	4.9	-1.2
Total services inputs to stage 2 intermediate demand.....	04/10	56.707	120.7	118.8	119.5	-0.2	0.6	0.1	0.3	0.8
Total construction inputs to stage 2 intermediate demand.....	04/10	1.977	118.6	120.0	118.6	0.0	-1.2	0.1	0.1	-1.2
Total foods inputs to stage 2 intermediate demand.....	04/10	3.832	113.0	108.9	109.0	-4.6	0.1	0.0	-0.7	-0.3
Total energy goods inputs to stage 2 intermediate demand.....	04/10	14.520	40.1	43.7	40.9	-32.8	-6.4	29.1	18.5	-6.2
Total goods less foods and energy inputs to stage 2 intermediate demand. ...	04/10	22.962	104.7	102.2	103.0	-3.2	0.8	-1.4	0.7	0.9
Total goods inputs to stage 1 intermediate demand.....	04/10	54.556	91.1	88.1	90.3	-6.1	2.5	-0.7	3.2	2.6
Total services inputs to stage 1 intermediate demand.....	04/10	45.432	122.7	120.1	120.2	-2.6	0.1	-0.7	0.3	0.1
Total construction inputs to stage 1 intermediate demand.....	04/10	0.011	118.6	120.0	118.6	0.0	-1.2	0.1	0.1	-1.2
Total foods inputs to stage 1 intermediate demand.....	04/10	2.798	103.8	98.5	97.2	-10.2	-1.3	1.2	-2.1	0.5
Total energy goods inputs to stage 1 intermediate demand.....	04/10	14.361	80.5	76.4	84.6	-14.2	10.7	-2.2	12.1	10.4
Total goods less foods and energy inputs to stage 1 intermediate demand. ...	04/10	37.397	92.7	90.3	90.5	-2.7	0.2	-0.2	1.1	0.3

¹ Further information about the Final Demand-Intermediate Demand Aggregation system is available online at <https://www.bls.gov/ppi/fdidaggregation.htm>

² Comprehensive relative importance figures are initially computed after the publication of December indexes and are recalculated after final December indexes are available. Individual items and subtotals may not add exactly to totals because of rounding differences.

³ The indexes for March 2020 have been recalculated to incorporate late reports and corrections by respondents. All indexes are subject to revision 4 months after original publication.

"-" Data not available.

Table 4. Producer price indexes and percent changes for selected commodity groupings by final demand category¹
 [1982=100, unless otherwise indicated]

Grouping	Commodity code	Other index base	Unadjusted index			Unadjusted percent change to July 2020 from:		Seasonally adjusted percent change from:		
			Mar. 2020 ²	June 2020 ²	July 2020 ²	July 2019	June 2020	Apr. to May	May to June	June to July
Final demand.....		11/09	118.1	117.5	118.2	-0.4	0.6	0.4	-0.2	0.6
Final demand goods.....		11/09	113.4	113.0	113.9	-2.0	0.8	1.6	0.2	0.8
Final demand foods.....		11/09	118.8	120.5	119.3	0.0	-1.0	6.0	-5.2	-0.5
Fresh fruits and melons ³	01-11		133.8	141.5	148.0	14.5	4.6	11.4	6.1	4.6
Fresh and dry vegetables ³	01-13		214.3	238.9	222.3	-9.9	-6.9	2.7	11.9	-6.9
Grains.....	01-2		153.1	134.5	133.5	-20.5	-0.7	-4.1	3.8	4.2
Eggs for fresh use ³	01-71-07	12/91	167.7	107.0	113.6	33.6	6.2	-44.6	-12.7	6.2
Oilseeds.....	01-83-01		163.7	161.5	164.1	1.5	1.6	2.9	-1.1	-2.8
Bakery products ³	02-11		293.9	295.0	293.4	0.4	-0.5	0.1	0.0	-0.5
Milled rice ³	02-13		215.2	224.6	227.8	10.6	1.4	2.1	1.3	1.4
Pasta products.....	02-14-02	06/85	204.3	203.4	202.5	0.2	-0.4	0.2	1.2	-0.2
Beef and veal.....	02-21-01		192.1	217.2	190.8	-5.9	-12.2	69.1	-44.5	-7.4
Pork.....	02-21-04		141.4	146.7	144.8	-0.8	-1.3	15.0	-15.2	-3.5
Processed young chickens.....	02-22-03		163.0	161.5	158.6	-5.4	-1.8	14.4	-8.4	-2.7
Processed turkeys.....	02-22-06		147.5	144.4	144.1	-2.3	-0.2	-1.8	0.3	-1.6
Finfish and shellfish ³	02-23		345.5	331.5	358.2	6.1	8.1	-0.5	-0.7	8.1
Dairy products.....	02-3		201.1	199.7	208.5	2.5	4.4	-4.0	6.6	4.0
Processed fruits and vegetables ³	02-4		209.9	212.9	212.7	2.3	-0.1	1.4	0.1	-0.1
Confectionery end products ³	02-55		284.7	280.2	281.1	-0.5	0.3	0.3	-0.8	0.3
Soft drinks ³	02-62		216.8	218.3	216.9	2.2	-0.6	1.8	-0.5	-0.6
Roasted coffee ³	02-63-01		194.7	194.3	194.7	0.4	0.2	0.6	-0.1	0.2
Shortening and cooking oils ³	02-78		237.3	241.2	239.4	0.0	-0.7	-0.8	2.2	-0.7
Frozen specialty food ³	02-85		188.5	185.1	188.6	0.4	1.9	3.1	-1.3	1.9
Final demand energy.....		11/09	91.5	89.1	94.1	-13.5	5.6	4.5	7.7	5.3
Liquefied petroleum gas ³	05-32		57.1	92.5	94.7	-5.2	2.4	54.0	21.6	2.4
Residential electric power.....	05-41	12/90	179.6	184.0	186.3	-1.3	1.3	-0.3	-0.4	0.7
Residential natural gas.....	05-51	12/90	200.4	198.5	197.2	-0.6	-0.7	0.7	0.4	-1.3
Gasoline.....	05-71		133.3	124.5	136.6	-31.3	9.7	43.9	26.3	10.1
Home heating oil and distillates.....	05-73-02		127.0	108.9	165.1	-8.9	51.6	-34.6	53.3	56.1
No. 2 diesel fuel.....	05-73-03		169.7	137.9	181.4	-17.5	31.5	-16.2	28.0	31.3
Final demand goods less foods and energy.....		11/09	118.3	117.9	118.2	0.5	0.3	0.0	0.1	0.3
Alcoholic beverages ³	02-61		203.0	203.3	201.2	0.4	-1.0	-1.6	0.2	-1.0
Pet food ³	02-94-02		273.0	273.1	273.3	0.9	0.1	0.0	0.0	0.1
Women's, girls', and infants' apparel ³	03-81-06	12/03	108.0	107.9	109.6	0.8	1.6	0.0	0.0	1.6
Men's and boys' apparel ³	03-81-07	12/03	118.2	118.5	118.5	0.5	0.0	0.0	0.3	0.0
Textile housefurnishings ³	03-82		168.3	168.3	168.2	-0.9	-0.1	0.0	0.0	-0.1
Footwear.....	04-3		210.1	209.8	209.8	-0.1	0.0	0.1	0.0	-0.2
Industrial chemicals.....	06-1		237.9	211.9	217.6	-12.7	2.7	-4.3	4.1	2.9
Pharmaceutical preparations.....	06-38	06/01	274.6	274.5	274.8	2.4	0.1	0.2	0.0	0.3
Soaps and detergents ³	06-71		183.1	183.5	183.8	0.7	0.2	0.0	0.1	0.2
Cleaning and polishing products ³	06-72	06/83	205.6	203.9	203.5	2.4	-0.2	-0.6	-0.2	-0.2
Cosmetics and other toiletries ³	06-75		167.9	167.9	167.9	0.7	0.0	0.0	0.0	0.0
Tires ³	07-12-01		148.5	149.5	149.5	0.8	0.0	-0.5	-0.1	0.0
Consumer, institutional, and commercial products, n.e.c. ³	07-2B	12/06	137.7	137.5	136.9	-0.9	-0.4	-0.1	-0.1	-0.4
Sanitary paper products ³	09-15-01		183.9	183.2	184.4	1.9	0.7	0.1	-0.3	0.7
Iron and steel scrap ³	10-12		402.9	378.6	362.2	-5.3	-4.3	11.3	-0.9	-4.3
Agricultural machinery and equipment.....	11-1		242.3	242.8	243.0	2.2	0.1	0.1	0.1	0.0
Construction machinery and equipment.....	11-2		236.5	236.6	236.5	1.7	0.0	0.0	0.0	-0.2
Metal cutting machine tools ³	11-37		206.4	206.6	207.8	1.9	0.6	0.0	0.1	0.6
Metal forming machine tools.....	11-38		242.0	243.0	240.5	1.2	-1.0	0.0	0.3	-0.7
Tools, dies, jigs, fixtures, and industrial molds ³	11-39		154.8	154.2	153.8	-1.7	-0.3	-0.1	0.0	-0.3
Pumps, compressors, and equipment.....	11-41		270.5	270.5	268.9	0.7	-0.6	0.0	0.0	-0.7
Industrial material handling equipment.....	11-44		229.1	229.0	228.9	1.6	0.0	-0.1	0.1	0.0
Electronic computers and computer equipment ³	11-5	12/98	25.6	25.5	25.7	-1.2	0.8	0.4	-0.8	0.8
Textile machinery and equipment ³	11-62		173.9	173.9	173.9	1.0	0.0	0.0	-0.1	0.0
Paper industries machinery ³	11-64	06/82	228.9	229.0	229.0	0.4	0.0	0.0	0.2	0.0
Printing trades machinery and equipment ³	11-65		165.2	165.7	165.3	0.8	-0.2	-0.3	0.4	-0.2
Transformers and power regulators ³	11-74		234.5	231.4	233.9	0.8	1.1	-0.4	0.0	1.1
Communication and related equipment.....	11-76	12/85	119.9	119.6	119.9	2.9	0.3	0.3	0.1	0.3
Electronic components and accessories.....	11-78		65.6	64.8	64.7	-1.1	-0.2	0.2	0.0	0.0
X-ray and electromedical equipment ³	11-79-05		86.9	86.8	87.2	0.7	0.5	-0.1	0.0	0.5
Oil field and gas field machinery ³	11-91		217.4	217.8	217.8	-1.1	0.0	0.0	0.0	0.0
Mining machinery and equipment ³	11-92		305.5	305.8	305.7	2.0	0.0	0.1	0.0	0.0
Office and store machines and equipment ³	11-93		122.2	120.4	120.8	-1.1	0.3	-1.2	0.1	0.3
Household furniture ³	12-1		221.4	223.7	222.7	1.1	-0.4	0.4	0.4	-0.4
Commercial furniture ³	12-2		239.8	238.5	240.4	2.3	0.8	0.0	-0.3	0.8
Floor coverings ³	12-3		198.5	197.8	196.7	-0.7	-0.6	-0.9	0.6	-0.6

See footnotes at end of table.

Table 4. Producer price indexes and percent changes for selected commodity groupings by final demand category¹ — Continued
 [1982=100, unless otherwise indicated]

Grouping	Commodity code	Other index base	Unadjusted index			Unadjusted percent change to July 2020 from:		Seasonally adjusted percent change from:		
			Mar. 2020 ²	June 2020 ²	July 2020 ²	July 2019	June 2020	Apr. to May	May to June	June to July
Household appliances ³	12-4		124.3	125.4	126.0	2.1	0.5	-0.1	0.8	0.5
Home electronic equipment ³	12-5		53.0	52.8	53.1	2.5	0.6	0.0	0.0	0.6
Lawn and garden equipment excl. garden tractors ³	12-66		151.1	151.2	151.2	1.2	0.0	0.0	0.0	0.0
Passenger cars.....	14-11-01		133.8	133.7	133.8	-0.4	0.1	0.5	-0.2	0.4
Light motor trucks.....	14-11-05		175.2	175.6	175.8	-0.2	0.1	1.2	-0.3	0.6
Heavy motor trucks.....	14-11-06		233.8	233.8	233.8	0.4	0.0	0.0	0.3	-0.1
Motor vehicles parts ³	14-12		127.7	127.7	127.7	0.5	0.0	0.0	0.0	0.0
Truck trailers ³	14-14		226.4	224.7	223.2	-1.8	-0.7	0.0	0.0	-0.7
Travel trailers and campers.....	14-16	06/84	218.9	219.0	219.2	1.1	0.1	0.0	-0.1	0.2
Aircraft.....	14-21		309.8	310.8	310.9	1.1	0.0	0.1	0.1	0.0
Ships ³	14-31	12/85	230.4	230.4	230.6	0.4	0.1	0.0	0.0	0.1
Railroad equipment ³	14-4		204.3	204.4	204.4	0.4	0.0	0.0	0.0	0.0
Toys, games, and children's vehicles ³	15-11		159.6	159.9	161.3	2.1	0.9	0.2	0.0	0.9
Sporting and athletic goods.....	15-12		145.6	145.6	145.6	2.4	0.0	0.0	0.3	0.0
Cigarettes ³	15-21		1,168.4	1,168.4	1,196.4	6.3	2.4	0.0	0.0	2.4
Mobile homes ³	15-5		327.8	330.6	332.7	2.7	0.6	0.2	0.0	0.6
Medical, surgical & personal aid devices.....	15-6		186.1	186.0	186.1	2.0	0.1	0.3	0.1	0.0
Jewelry, platinum and karat gold ³	15-94-02		241.7	242.7	249.7	8.3	2.9	0.8	0.6	2.9
Costume jewelry and novelties ³	15-94-04		202.6	202.5	202.7	3.3	0.1	0.0	0.0	0.1
Final demand services.....		11/09	120.0	119.2	119.8	0.3	0.5	-0.2	-0.3	0.5
Final demand trade services ⁴		11/09	120.8	120.5	121.3	1.2	0.7	-0.8	-1.8	0.8
Machinery and equipment parts and supplies wholesaling ³	57-11-02	03/09	131.6	130.7	133.5	2.4	2.1	1.7	-0.8	2.1
Machinery and vehicle wholesaling ³	57-11-03	05/19	92.5	91.9	96.4	-3.8	4.9	-2.0	-7.3	4.9
Professional and commercial equipment wholesaling ³	57-11-04	05/19	92.4	93.7	91.7	-8.3	-2.1	-0.1	1.5	-2.1
Furnishings wholesaling ³	57-2	03/09	103.9	104.1	104.9	3.3	0.8	2.6	-1.1	0.8
Chemicals and allied products wholesaling ³	57-5	03/09	113.2	121.6	120.9	6.6	-0.6	1.8	2.7	-0.6
Paper and plastics products wholesaling ³	57-6	03/09	140.6	141.6	141.3	9.2	-0.2	-0.3	-0.6	-0.2
Apparel wholesaling ³	57-7	03/09	120.9	127.0	123.2	-0.5	-3.0	1.3	1.4	-3.0
Food and alcohol wholesaling ³	57-8	06/09	115.7	114.1	114.7	-0.1	0.5	-0.2	-0.9	0.5
Food and alcohol retailing.....	58-1	03/09	137.3	136.6	137.0	2.2	0.3	-0.2	-1.0	0.7
Health, beauty, and optical goods retailing ³	58-2	03/09	124.7	123.8	124.1	-2.5	0.2	0.1	-0.4	0.2
Apparel, jewelry, footwear, and accessories retailing.....	58-3	06/09	114.8	103.5	100.2	-5.6	-3.2	1.6	-7.1	-2.6
Computer hardware, software, and supplies retailing ³	58-4	03/09	97.3	101.0	99.7	4.7	-1.3	1.2	1.4	-1.3
TV, video, and photographic equipment and supplies retailing ³	58-5	03/09	64.5	52.9	61.6	14.1	16.4	-9.0	-6.0	16.4
Automobiles retailing (Partial).....	58-61-01	03/09	80.7	78.4	93.7	20.6	19.5	-10.2	12.2	20.5
Automotive parts, including tires, retailing ³	58-61-02	03/09	113.7	112.6	114.6	0.5	1.8	-0.8	-0.9	1.8
RVs, trailers, and campers retailing ³	58-8	03/09	112.4	102.4	103.0	-2.8	0.6	11.2	2.3	0.6
Sporting goods, including boats, retailing ³	58-9	03/09	115.6	115.6	119.5	4.0	3.4	-0.3	-0.7	3.4
Lawn, garden, and farm equipment and supplies retailing ³	58-A	03/09	111.6	112.9	113.0	4.4	0.1	1.2	-0.3	0.1
Furniture retailing ³	58-B	03/09	109.1	105.8	111.6	5.5	5.5	-2.2	0.8	5.5
Flooring and floor coverings retailing ³	58-C	03/09	99.1	100.3	98.5	-3.5	-1.8	-1.3	0.1	-1.8
Hardware, building materials, and supplies retailing.....	58-D	03/09	124.7	127.9	135.1	9.4	5.6	1.6	-0.2	5.8
Major household appliances retailing.....	58-E	03/09	100.4	103.8	104.7	7.4	0.9	2.2	-1.1	5.9
Fuels and lubricants retailing ³	58-F	06/09	221.9	229.2	217.4	26.2	-5.1	-13.1	-9.4	-5.1
Cleaning supplies and paper products retailing ³	58-G	03/09	144.8	143.7	141.1	-2.8	-1.8	-3.4	-1.7	-1.8
Book retailing ³	58-H	03/09	124.9	122.6	129.3	11.9	5.5	-8.0	4.3	5.5
Final demand transportation and warehousing services.....		11/09	122.5	120.5	119.5	-5.5	-0.8	1.5	0.9	-0.8
Rail transportation of freight and mail ³	30-11	12/08	129.5	126.9	126.6	-1.9	-0.2	-1.2	-0.2	-0.2
Truck transportation of freight ³	30-12	06/09	124.7	119.6	122.2	-2.5	2.2	-2.4	-0.5	2.2
Air transportation of freight ³	30-14	12/08	111.5	111.5	116.3	4.0	4.3	1.4	0.1	4.3
Courier, messenger, and U.S. postal services.....	30-16	06/09	151.3	150.2	150.5	2.7	0.2	0.1	0.5	0.3
Rail transportation of passengers.....	30-21	12/08	127.8	127.8	127.8	2.4	0.0	0.2	0.2	0.2
Airline passenger services.....	30-22	12/08	107.5	111.2	102.9	-14.8	-7.5	12.4	4.8	-7.0
Final demand services less trade, transportation, and warehousing.....		11/09	119.4	118.5	119.2	0.4	0.6	0.0	0.3	0.4
Sales of books ³	33-11		402.6	407.7	400.7	2.5	-1.7	0.9	0.3	-1.7
Sales and subscriptions of periodicals and newspapers ³	33-12		132.5	138.5	146.1	16.6	5.5	4.1	0.3	5.5
Application software publishing ³	34-2	06/09	101.8	102.9	102.8	-1.0	-0.1	-0.4	0.9	-0.1
Advertising space sales in periodicals, newspapers, directories, and mailing lists ³	36-1	06/09	100.0	98.6	98.9	-2.7	0.3	-0.4	0.2	0.3
Residential wired telecommunication services.....	37-11	06/09	146.1	144.4	144.4	3.2	0.0	-0.8	-0.3	-0.2
Wireless telecommunication services.....	37-2	06/09	65.2	63.8	64.0	-1.8	0.3	-2.3	-0.3	0.3
Cable and satellite subscriber services ³	37-3	12/08	137.9	138.6	138.8	2.2	0.1	-0.4	0.0	0.1
Internet access services ³	37-4	03/09	93.4	92.9	92.2	-1.4	-0.8	-0.5	0.0	-0.8
Bundled wired telecommunications access services ³	37-5	12/11	114.8	115.2	115.1	5.1	-0.1	2.9	0.0	-0.1
Consumer loans (partial).....	39-12	06/09	115.1	109.3	108.1	-7.0	-1.1	-5.8	0.7	0.2
Deposit services (partial) ³	39-2	04/09	61.2	59.3	60.5	-10.6	2.0	0.3	-4.2	2.0
Other credit intermediation, incl. trust services (partial) ³	39-3	04/09	106.6	99.6	99.5	-8.1	-0.1	-2.4	-3.7	-0.1

See footnotes at end of table.

Table 4. Producer price indexes and percent changes for selected commodity groupings by final demand category¹ — Continued
 [1982=100, unless otherwise indicated]

Grouping	Commodity code	Other index base	Unadjusted index			Unadjusted percent change to July 2020 from:		Seasonally adjusted percent change from:		
			Mar. 2020 ²	June 2020 ²	July 2020 ²	July 2019	June 2020	Apr. to May	May to June	June to July
Securities brokerage, dealing, investment advice, and related services ³	40-1	06/09	160.2	132.8	135.3	-17.7	1.9	-10.0	2.3	1.9
Portfolio management ³	40-2	12/08	227.9	214.2	230.9	4.9	7.8	3.9	2.2	7.8
Life insurance ³	41-11-01	03/09	105.2	105.2	105.5	1.0	0.3	0.7	0.0	0.3
Disability insurance, including accidental death ³	41-11-02	03/09	103.9	103.9	103.9	-0.1	0.0	0.0	0.0	0.0
Health and medical insurance.....	41-11-03	03/09	139.2	139.1	139.3	2.8	0.1	2.0	0.4	0.0
Property and casualty insurance ³	41-11-04	03/09	125.6	125.6	125.7	0.8	0.1	0.0	0.0	0.1
Annuities ³	41-2	03/09	118.5	118.1	118.5	4.1	0.3	0.0	0.4	0.3
Residential property sales and leases, brokerage fees and commissions.....	43-21	12/08	148.5	150.0	152.4	3.9	1.6	0.5	-0.3	1.3
Passenger car rental.....	44-1	03/09	82.0	79.5	86.3	-7.5	8.6	4.8	12.0	-0.4
Legal services.....	45-1	03/09	139.6	140.4	142.5	5.6	1.5	0.4	0.0	1.9
Tax preparation and planning.....	45-21-02	04/09	118.9	120.3	113.7	-3.2	-5.5	2.5	-0.3	-5.8
Architectural and engineering services ³	45-3	06/09	118.9	117.7	117.7	-0.1	0.0	-1.3	0.2	0.0
Management, scientific, and technical consulting services.....	45-4	06/09	98.9	97.3	96.8	-6.8	-0.5	-1.1	-0.8	-0.4
Arrangement of flights (partial) ³	47-1	06/09	98.5	97.9	96.5	-10.4	-1.4	-8.3	1.7	-1.4
Arrangement of vehicle rentals and lodging ³	47-2	12/08	77.5	82.1	86.6	0.9	5.5	5.3	0.4	5.5
Arrangement of cruises and tours ³	47-3	12/08	107.8	62.0	53.1	-60.9	-14.4	-18.2	-26.0	-14.4
Physician care.....	51-11-01	03/09	110.8	110.8	111.3	1.0	0.5	-0.5	0.5	0.4
Medical laboratory and diagnostic imaging care ³	51-11-02	03/09	94.7	95.5	95.2	-0.3	-0.3	0.5	0.3	-0.3
Home health and hospice care ³	51-11-03	12/08	114.4	115.1	115.6	3.0	0.4	0.2	0.4	0.4
Hospital outpatient care.....	51-11-04	12/08	133.5	134.2	134.6	2.3	0.3	0.1	0.4	0.4
Dental care.....	51-11-05	06/10	117.6	120.4	121.6	4.6	1.0	6.5	-3.7	1.1
Hospital inpatient care.....	51-21-01	12/08	131.7	133.6	133.9	3.6	0.2	0.4	0.8	0.1
Nursing home care.....	51-21-02	12/08	130.3	130.7	131.7	4.1	0.8	0.1	0.3	0.5
Traveler accommodation services.....	53-11	06/09	116.6	102.2	103.3	-20.8	1.1	-4.0	2.4	-3.2
Food and beverages for immediate consumption services (partial) ³ ..	54-1	06/09	120.6	120.4	121.5	0.7	0.9	-2.2	1.9	0.9
Motor vehicle repair and maintenance (partial).....	55-2	12/08	140.9	141.0	141.6	2.5	0.4	0.3	-0.1	0.3
Membership dues and admissions and recreation facility use fees (partial).....	56-1	06/09	124.6	124.2	125.1	2.0	0.7	-0.3	-0.2	0.8
Recreational activity instruction fees (partial) ³	56-2	12/08	123.1	123.3	123.1	2.4	-0.2	0.0	0.0	-0.2
Gaming receipts (partial) ³	56-3	12/08	105.5	-	-	-	-	8.7	-	-
Mining services ³	60-1	06/85	226.3	221.5	220.9	-5.4	-0.3	0.5	-0.5	-0.3
Final demand construction.....		11/09	129.6	129.9	130.7	2.1	0.6	-0.1	-0.3	0.6
New warehouse building construction ³	80-11-01	12/04	162.8	161.5	162.0	0.6	0.3	-0.7	0.0	0.3
New school building construction ³	80-11-02	12/05	173.2	173.7	174.8	2.0	0.6	-0.1	-0.6	0.6
New office building construction ³	80-11-03	06/06	145.5	145.2	146.6	2.3	1.0	0.1	-0.6	1.0
New industrial building construction ³	80-11-04	06/07	138.4	139.6	140.7	3.1	0.8	-0.1	-0.1	0.8
New health care building construction ³	80-11-05	06/12	118.9	119.3	120.3	2.6	0.8	-0.2	0.0	0.8

¹ Further information about the Final Demand-Intermediate Demand Aggregation system is available online at <https://www.bls.gov/ppi/fdidaggregation.htm>

² The indexes for March 2020 have been recalculated to incorporate late reports and corrections by respondents. All indexes are subject to revision 4 months after original publication.

³ Not seasonally adjusted.

⁴ Trade indexes measure changes in margins received by wholesalers and retailers.

"-" Data not available.

NOTE: The term "(partial)" denotes incomplete coverage of the index category.

Table 5. Producer price indexes and percent changes for selected commodity groupings of intermediate demand by commodity type category¹
 [1982=100, unless otherwise indicated]

Grouping	Commodity code	Other index base	Unadjusted index			Unadjusted percent change to July 2020 from:		Seasonally adjusted percent change from:		
			Mar. 2020 ²	June 2020 ²	July 2020 ²	July 2019	June 2020	Apr. to May	May to June	June to July
Processed goods for intermediate demand.....			191.7	188.8	191.7	-3.6	1.5	0.1	0.9	1.5
Processed foods and feeds.....			192.5	196.5	194.8	1.0	-0.9	6.4	-5.5	-0.7
Meats.....	02-21		175.2	196.4	177.6	-2.2	-9.6	40.4	-27.7	-8.0
Processed poultry.....	02-22		153.1	155.7	156.6	-1.0	0.6	1.9	-1.5	-0.3
Dairy products.....	02-3		201.1	199.7	208.5	2.5	4.4	-4.0	6.6	4.0
Processed fruits and vegetables ³	02-4		209.9	212.9	212.7	2.3	-0.1	1.4	0.1	-0.1
Refined sugar and byproducts ³	02-53		182.9	183.1	183.3	4.9	0.1	0.5	-0.1	0.1
Fats and oils ³	02-7		234.7	239.6	237.7	0.3	-0.8	-0.4	2.2	-0.8
Prepared animal feeds.....	02-9		190.9	189.9	188.3	0.5	-0.8	-0.3	-1.2	-0.7
Processed materials less foods and feeds.....			191.6	188.1	191.5	-4.1	1.8	-0.5	1.6	1.8
Synthetic fibers ³	03-1		127.7	126.9	127.6	-3.3	0.6	-0.2	-0.5	0.6
Processed yarns and threads ³	03-2		138.0	135.7	135.9	-3.6	0.1	-0.8	-0.8	0.1
Finished fabrics ³	03-4		160.9	161.8	162.6	0.9	0.5	0.4	0.2	0.5
Liquefied petroleum gas ³	05-32		57.1	92.5	94.7	-5.2	2.4	54.0	21.6	2.4
Commercial electric power.....	05-42		193.1	206.3	211.7	0.9	2.6	-1.6	1.5	2.1
Industrial electric power.....	05-43		233.2	251.2	253.1	-0.1	0.8	-1.4	2.4	-0.6
Commercial natural gas.....	05-52	12/90	187.3	180.1	178.1	-3.9	-1.1	0.6	0.6	-1.1
Industrial natural gas.....	05-53	12/90	136.9	130.5	126.7	-9.4	-2.9	1.2	-0.4	-3.1
Natural gas to electric utilities.....	05-54	12/90	128.4	126.2	119.9	-15.9	-5.0	4.7	-3.3	-3.8
Gasoline.....	05-71		133.3	124.5	136.6	-31.3	9.7	43.9	26.3	10.1
Jet fuel ³	05-72-03		145.2	105.4	121.2	-40.0	15.0	-12.6	47.0	15.0
No. 2 diesel fuel.....	05-73-03		169.7	137.9	181.4	-17.5	31.5	-16.2	28.0	31.3
Residual fuels ³	05-74		130.3	65.3	93.3	-37.9	42.9	-38.9	90.4	42.9
Finished lubricants ³	05-76		439.5	436.3	433.4	-0.8	-0.7	-0.5	-0.1	-0.7
Lubricating oil base stocks ³	05-78	06/09	94.9	67.3	83.5	-31.4	24.1	33.4	-41.7	24.1
Asphalt.....	05-81-02	06/85	191.8	141.8	158.0	-38.1	11.4	-14.6	8.5	4.7
Basic inorganic chemicals ³	06-13		270.1	270.2	272.6	-1.9	0.9	0.6	-0.8	0.9
Basic organic chemicals.....	06-14		233.5	203.4	209.6	-14.7	3.0	-5.2	5.2	3.4
Prepared paint ³	06-21		301.9	304.3	306.5	2.0	0.7	0.0	0.2	0.7
Paint materials ³	06-22		263.1	265.3	265.7	-1.5	0.2	0.8	0.1	0.2
Medicinal and botanical chemicals ³	06-31		184.1	179.3	179.3	-1.2	0.0	0.0	-3.3	0.0
Biological products, including diagnostics.....	06-37		280.1	280.0	281.5	2.2	0.5	0.6	0.1	0.5
Fats and oils, inedible.....	06-4		198.2	189.7	192.3	-1.0	1.4	-2.7	4.2	2.2
Nitrogenates.....	06-52-01		237.1	243.2	234.2	-11.1	-3.7	7.2	-2.1	-0.8
Phosphates.....	06-52-02		163.4	170.1	165.5	-8.9	-2.7	0.2	5.7	1.3
Other agricultural chemicals ³	06-53		191.9	191.6	195.3	-7.5	1.9	0.0	1.2	1.9
Plastic resins and materials.....	06-6		220.1	203.7	207.3	-7.4	1.8	-5.1	2.0	1.7
Industrial gases ³	06-79-03		274.3	273.3	273.3	-2.6	0.0	-0.5	-0.4	0.0
Adhesives and sealants ³	06-79-04	12/83	269.5	270.3	269.5	0.9	-0.3	0.4	0.0	-0.3
Synthetic rubber ³	07-11-02		200.9	189.1	184.1	-11.2	-2.6	-1.0	-0.5	-2.6
Tires ³	07-12-01		148.5	149.5	149.5	0.8	0.0	-0.5	-0.1	0.0
Plastic construction products ³	07-21		231.3	229.2	230.5	0.1	0.6	-0.5	-0.5	0.6
Unsupported plastic film, sheet, other shapes ³	07-22		218.6	216.7	218.4	-1.6	0.8	-1.0	-0.9	0.8
Parts for manufacturing from plastics ³	07-26		152.6	153.1	152.6	-1.2	-0.3	0.0	-0.1	-0.3
Plastic packaging products ³	07-2A	12/06	113.9	113.1	111.8	-4.4	-1.1	-0.2	-0.3	-1.1
Softwood lumber.....	08-11		240.5	245.3	269.4	25.7	9.8	3.1	12.9	11.0
Hardwood lumber ³	08-12		203.6	201.5	202.1	-6.2	0.3	-0.1	-0.9	0.3
Millwork.....	08-2		267.3	268.2	270.9	2.6	1.0	0.1	-0.2	1.1
Plywood ³	08-3		204.4	197.4	216.5	8.5	9.7	-2.6	0.6	9.7
Paper ²	09-13		195.0	193.6	194.4	-3.2	0.4	-1.4	0.3	0.4
Paperboard ³	09-14		256.0	255.7	256.1	-3.3	0.2	-0.1	0.2	0.2
Paper boxes and containers ³	09-15-03		268.1	266.8	267.4	-0.8	0.2	0.0	-0.4	0.2
Building paper and board ³	09-2		232.2	216.6	229.9	15.9	6.1	-2.8	4.7	6.1
Commercial printing ³	09-47	06/82	178.7	177.5	178.0	0.2	0.3	-0.1	-0.8	0.3
Foundry and forge shop products ³	10-15		212.5	211.9	212.2	0.2	0.1	-0.2	0.0	0.1
Steel mill products ³	10-17		188.7	181.0	179.9	-10.5	-0.6	-3.1	-1.0	-0.6
Primary nonferrous metals ³	10-22		182.5	182.1	188.7	2.8	3.6	0.2	3.7	3.6
Secondary nonferrous metals ³	10-24		241.0	242.2	249.6	6.8	3.1	-3.3	1.2	3.1
Aluminum mill shapes ³	10-25-01		185.7	170.0	173.1	-12.8	1.8	-4.0	-0.4	1.8
Copper and brass mill shapes ³	10-25-02		372.8	376.3	403.6	2.9	7.3	1.1	3.7	7.3
Nonferrous wire and cable ³	10-26		241.0	239.7	242.6	-1.6	1.2	0.4	-0.5	1.2
Nonferrous foundry shop products.....	10-28		211.4	210.8	211.6	-1.0	0.4	0.0	0.0	0.5
Metal containers ³	10-3		163.5	162.2	162.8	0.1	0.4	-0.1	-0.4	0.4
Hardware ³	10-4		226.7	227.1	227.1	1.5	0.0	0.1	0.0	0.0
Plumbing fixtures and brass fittings.....	10-5		287.9	280.6	286.6	1.5	2.1	0.3	-2.5	2.2
Heating equipment ³	10-6		283.9	284.3	283.6	1.6	-0.2	-0.2	0.1	-0.2
Fabricated structural metal products.....	10-7		238.9	240.2	239.0	-1.4	-0.5	0.0	0.6	-0.5

See footnotes at end of table.

Table 5. Producer price indexes and percent changes for selected commodity groupings of intermediate demand by commodity type category¹ — Continued
 [1982=100, unless otherwise indicated]

Grouping	Commodity code	Other index base	Unadjusted index			Unadjusted percent change to July 2020 from:		Seasonally adjusted percent change from:		
			Mar. 2020 ²	June 2020 ²	July 2020 ²	July 2019	June 2020	Apr. to May	May to June	June to July
Bolts, nuts, screws, rivets, and washers ³	10-81	00/82	211.8	221.0	220.0	4.9	-0.5	3.6	0.5	-0.5
Lighting fixtures ³	10-83	00/82	187.7	187.7	187.6	1.8	-0.1	-0.1	0.2	-0.1
Fabricated ferrous wire products ³	10-88	06/82	252.6	252.9	252.3	-1.4	-0.2	0.2	0.0	-0.2
Other miscellaneous metal products ³	10-89		166.3	166.3	166.1	-0.5	-0.1	0.1	0.1	-0.1
Fluid power equipment ³	11-43		270.0	270.2	270.5	1.7	0.1	0.3	-0.2	0.1
Mechanical power transmission equipment ³	11-45		282.3	283.4	283.8	1.6	0.1	0.0	0.3	0.1
Air conditioning and refrigeration equipment.....	11-48		203.7	204.1	203.5	1.0	-0.3	-0.3	0.5	-0.3
Metal valves, except fluid power.....	11-49-02	12/82	345.2	349.1	348.1	2.1	-0.3	0.3	0.8	-0.1
Ball and roller bearings ³	11-49-05		282.7	281.8	281.8	1.0	0.0	0.1	-0.4	0.0
Wiring devices ³	11-71		239.4	239.6	240.7	1.4	0.5	-0.7	0.2	0.5
Motors, generators, motor generator sets ³	11-73		222.2	222.2	222.2	0.5	0.0	0.0	0.0	0.0
Switchgear, switchboard, and industrial controls equip. ³	11-75		234.7	235.4	236.4	2.3	0.4	0.0	0.2	0.4
Electronic components and accessories.....	11-78		65.6	64.8	64.7	-1.1	-0.2	0.2	0.0	0.0
Internal combustion engines ³	11-94		170.9	171.1	171.2	0.8	0.1	0.2	0.0	0.1
Machine shop products ³	11-95		195.0	195.6	195.2	0.9	-0.2	0.3	0.0	-0.2
Flat glass ³	13-11		139.1	139.2	139.0	1.2	-0.1	0.1	0.4	-0.1
Cement.....	13-22		256.9	261.3	261.7	1.2	0.2	-1.2	0.9	0.8
Concrete products.....	13-3		279.0	279.3	279.0	2.2	-0.1	0.1	0.0	0.0
Asphalt felts and coatings ³	13-6		249.5	247.6	252.4	3.5	1.9	-1.1	1.1	1.9
Paving mixtures and blocks ³	13-94		330.7	313.1	304.7	-5.9	-2.7	0.0	-0.8	-2.7
Motor vehicle parts ³	14-12		127.7	127.7	127.7	0.5	0.0	0.0	0.0	0.0
Aircraft engines and engine parts.....	14-23	12/85	230.7	232.0	231.8	0.9	-0.1	0.2	0.3	-0.1
Aircraft parts and auxiliary equipment, n.e.c.....	14-25	06/85	190.7	192.3	192.3	2.1	0.0	0.7	-0.1	0.1
Medical, surgical, and personal aid devices.....	15-6		186.1	186.0	186.1	2.0	0.1	0.3	0.1	0.0
Unprocessed goods for intermediate demand.....			160.9	157.0	154.8	-16.3	-1.4	8.9	3.1	-0.7
Unprocessed foodstuffs and feedstuffs.....			159.6	143.2	147.6	-11.8	3.1	4.5	-5.6	4.3
Wheat ³	01-21		142.7	141.5	139.9	1.7	-1.1	-3.3	-2.6	-1.1
Corn.....	01-22-02		154.4	128.1	127.2	-28.0	-0.7	-5.0	6.3	6.7
Slaughter cattle.....	01-31		164.5	159.9	149.6	-11.0	-6.4	7.7	-2.2	-5.7
Slaughter hogs.....	01-32		71.5	64.1	59.4	-32.2	-7.3	41.6	-39.3	-12.8
Slaughter chickens.....	01-41-02		213.8	190.5	184.3	-27.6	-3.3	64.9	-7.7	6.5
Slaughter turkeys.....	01-42		205.9	216.9	220.0	21.9	1.4	0.7	0.8	-0.7
Raw milk.....	01-6		137.3	87.1	126.3	-11.5	45.0	-22.4	-13.0	43.7
Alfalfa hay.....	01-81		310.9	326.5	336.0	7.1	2.9	-7.8	10.6	4.1
Oilseeds.....	01-83-01		163.7	161.5	164.1	1.5	1.6	2.9	-1.1	-2.8
Raw cane sugar and byproducts ³	02-52-01		168.2	173.1	176.3	13.4	1.8	1.1	1.0	1.8
Unprocessed nonfood materials.....			153.8	159.3	152.5	-19.1	-4.3	12.4	9.7	-4.0
Raw cotton ³	01-51		91.8	91.0	94.9	2.2	4.3	12.2	3.3	4.3
Hides and skins.....	04-1		105.8	75.2	72.8	-37.7	-3.2	-16.1	-1.2	-2.9
Coal.....	05-1		189.3	192.6	190.1	-5.4	-1.3	2.8	-0.3	-1.0
Natural gas ³	05-31		55.4	53.1	52.3	-29.5	-1.5	36.5	-18.4	-1.5
Crude petroleum ³	05-61		89.8	108.8	94.0	-42.1	-13.6	41.6	71.9	-13.6
Logs, bolts, timber, pulpwood, and woodchips.....	08-5		239.0	234.4	230.5	-3.6	-1.7	-1.2	-0.6	-1.7
Recyclable paper ³	09-12		184.3	317.9	261.3	69.6	-17.8	18.3	-1.9	-17.8
Iron ores.....	10-11		146.7	147.0	149.8	2.0	1.9	-3.5	-1.6	3.1
Iron and steel scrap ³	10-12		402.9	378.6	362.2	-5.3	-4.3	11.3	-0.9	-4.3
Nonferrous metal ores ³	10-21	12/83	426.7	404.4	425.9	17.0	5.3	-4.9	2.1	5.3
Copper base scrap ³	10-23-01		369.0	399.9	435.9	7.7	9.0	3.3	10.3	9.0
Aluminum base scrap.....	10-23-02		156.3	151.6	145.7	-15.9	-3.9	-5.1	1.5	-2.9
Construction sand, gravel, and crushed stone.....	13-21		362.1	366.9	365.5	3.7	-0.4	-0.1	0.4	-0.2
Services for intermediate demand.....			122.2	119.9	120.5	-1.0	0.5	-0.4	0.2	0.7
Trade services for intermediate demand ⁴			127.6	128.0	129.4	3.9	1.1	0.6	-0.5	1.1
Machinery and equipment parts and supplies wholesaling ³	57-11-02	03/09	131.6	130.7	133.5	2.4	2.1	1.7	-0.8	2.1
Building materials, paint, and hardware wholesaling.....	57-3	03/09	103.4	102.5	103.3	2.8	0.8	-2.6	1.2	1.9
Metals, minerals, and ores wholesaling ³	57-4	03/09	169.3	158.5	159.4	2.9	0.6	1.5	-4.5	0.6
Chemicals and allied products wholesaling ³	57-5	03/09	113.2	121.6	120.9	6.6	-0.6	1.8	2.7	-0.6
Paper and plastics products wholesaling ³	57-6	03/09	140.6	141.6	141.3	9.2	-0.2	-0.3	-0.6	-0.2
Food wholesaling ³	57-81-01	03/09	113.6	112.0	112.5	-1.1	0.4	0.2	-1.2	0.4
Automotive parts, including tires, retailing ³	58-61-02	03/09	113.7	112.6	114.6	0.5	1.8	-0.8	-0.9	1.8
Hardware, building material, and supplies retailing.....	58-D	03/09	124.7	127.9	135.1	9.4	5.6	1.6	-0.2	5.8
Transportation and warehousing services for intermediate demand.....			129.2	127.2	126.8	-2.2	-0.3	0.5	-0.2	-0.4
Rail transportation of freight and mail ³	30-11	12/08	129.5	126.9	126.6	-1.9	-0.2	-1.2	-0.2	-0.2
Truck transportation of freight ³	30-12	06/09	124.7	119.6	122.2	-2.5	2.2	-2.4	-0.5	2.2
Water transportation of freight ³	30-13	06/09	121.6	116.8	117.0	-5.6	0.2	0.1	-0.7	0.2
Air transportation of freight ³	30-14	12/08	111.5	111.5	116.3	4.0	4.3	1.4	0.1	4.3
Pipeline transportation of petroleum products.....	30-15-01	12/08	161.1	160.6	166.6	3.1	3.7	0.4	0.2	1.5
U.S. Postal Service.....	30-16-01	06/89	237.5	237.5	237.5	2.3	0.0	0.3	0.1	-0.1

See footnotes at end of table.

Table 5. Producer price indexes and percent changes for selected commodity groupings of intermediate demand by commodity type category¹ — Continued
 [1982=100, unless otherwise indicated]

Grouping	Commodity code	Other index base	Unadjusted index			Unadjusted percent change to July 2020 from:		Seasonally adjusted percent change from:		
			Mar. 2020 ²	June 2020 ²	July 2020 ²	July 2019	June 2020	Apr. to May	May to June	June to July
Courier and messenger services, except air mail.....	30-16-02	04/09	168.2	167.5	167.5	3.9	0.0	0.1	0.4	0.3
Air mail and package delivery services, excluding by USPS.....	30-16-03	04/09	184.4	178.4	180.1	1.1	1.0	-1.2	2.2	1.3
Transportation of passengers (partial).....	30-2	06/09	116.9	120.8	111.9	-14.6	-7.4	12.2	4.8	-6.9
Services related to water transportation.....	31-1	06/09	124.8	122.0	123.3	-0.3	1.1	-1.5	0.2	0.6
Arrangement of freight and cargo ³	31-31	12/08	105.7	103.7	98.5	-8.6	-5.0	-0.1	-2.5	-5.0
Warehousing, storage, and related services ³	32-1	12/08	106.6	105.0	105.6	-1.2	0.6	0.2	-1.9	0.6
Services less trade, transportation, and warehousing for intermediate demand.....		11/09	119.4	116.4	117.1	-2.0	0.6	-0.9	0.4	0.8
Network compensation from broadcast TV, cable TV, radio ³	35	06/09	146.5	146.5	146.5	4.6	0.0	0.0	0.0	0.0
Advertising space sales in periodicals and newspapers ³	36-11	06/09	100.7	98.9	99.3	-3.2	0.4	-0.4	0.2	0.4
Advertising space sales in directories and mail lists ³	36-12	12/08	100.8	100.8	100.8	0.0	0.0	0.0	0.0	0.0
Television advertising time sales.....	36-2	06/09	109.2	99.1	100.5	-2.4	1.4	-4.9	3.8	6.6
Radio advertising time sales.....	36-3	03/09	101.9	83.5	86.7	-16.8	3.8	-25.9	4.1	3.9
Internet advertising space sales, excluding Internet ads sold by print publishers ³	36-5	12/09	59.2	52.3	52.0	-14.6	-0.6	-0.3	-11.2	-0.6
Business wired telecommunication services ³	37-12	06/09	102.3	102.0	102.0	0.5	0.0	0.0	0.0	0.0
Wireless telecommunication services.....	37-2	06/09	65.2	63.8	64.0	-1.8	0.3	-2.3	-0.3	0.3
Cable and satellite subscriber services ³	37-3	12/08	137.9	138.6	138.8	2.2	0.1	-0.4	0.0	0.1
Bundled wired telecommunication access services ³	37-5	12/11	114.8	115.2	115.1	5.1	-0.1	2.9	0.0	-0.1
Data processing and related services ³	38-1	06/09	103.4	103.0	103.5	2.3	0.5	-0.5	0.9	0.5
Business loans (partial).....	39-11	04/09	201.7	168.2	156.5	-32.3	-7.0	-9.9	-2.0	-4.6
Deposit services (partial) ³	39-2	04/09	61.2	59.3	60.5	-10.6	2.0	0.3	-4.2	2.0
Other credit intermediation, incl. trust services (partial) ³	39-3	04/09	106.6	99.6	99.5	-8.1	-0.1	-2.4	-3.7	-0.1
Securities brokerage, dealing, investment advice, and related services ³	40-1	06/09	160.2	132.8	135.3	-17.7	1.9	-10.0	2.3	1.9
Portfolio management ³	40-2	12/08	227.9	214.2	230.9	4.9	7.8	3.9	2.2	7.8
Investment banking ³	40-3	12/08	207.3	192.9	199.1	7.9	3.2	2.8	-5.8	3.2
Life insurance ³	41-11-01	03/09	105.2	105.2	105.5	1.0	0.3	0.7	0.0	0.3
Health and medical insurance.....	41-11-03	03/09	139.2	139.1	139.3	2.8	0.1	2.0	0.4	0.0
Property and casualty insurance ³	41-11-04	03/09	125.6	125.6	125.7	0.8	0.1	0.0	0.0	0.1
Annuities ³	41-2	03/09	118.5	118.1	118.5	0.7	0.3	0.0	0.4	0.3
Commissions from sales of insurance ³	42-1	06/09	108.6	108.7	108.7	0.6	0.0	0.0	0.2	0.0
Nonresidential real estate rents ³	43-11	06/09	117.3	120.4	121.6	3.3	1.0	-4.2	7.2	1.0
Nonresidential property sales and leases ³	43-12	12/08	128.2	129.0	130.9	4.3	1.5	1.0	-0.9	1.5
Residential property management fees ³	43-22	12/08	118.2	118.2	118.3	0.0	0.1	-0.1	0.0	0.1
Passenger car rental.....	44-1	03/09	82.0	79.5	86.3	-7.5	8.6	4.8	12.0	-0.4
Truck, utility trailer, and RV rental and leasing ³	44-2	06/09	109.2	110.0	111.1	1.6	1.0	1.7	-0.7	1.0
Construction, mining, and forestry machinery and equipment rental and leasing ³	44-3	03/09	99.3	97.8	96.1	-3.5	-1.7	0.0	0.1	-1.7
Legal services.....	45-1	03/09	139.6	140.4	142.5	5.6	1.5	0.4	0.0	1.9
Accounting services (partial).....	45-2	06/09	115.7	113.1	109.8	-2.2	-2.9	0.0	-1.4	-3.5
Architectural and engineering services ³	45-3	06/09	118.9	117.7	117.7	-0.1	0.0	-1.3	0.2	0.0
Management, scientific, and technical consulting services.....	45-4	06/09	98.9	97.3	96.8	-6.8	-0.5	-1.1	-0.8	-0.4
Advertising and related services (partial) ³	45-5	12/08	108.2	108.1	108.1	-2.1	0.0	0.0	-0.4	0.0
Permanent placement services ³	46-1	03/09	119.7	119.3	116.4	0.2	-2.4	1.0	-0.9	-2.4
Executive search services ³	46-2	12/08	98.2	97.2	98.2	3.4	1.0	0.6	1.7	1.0
Staffing services.....	46-3	06/09	115.9	118.8	118.5	2.5	-0.3	1.7	0.6	-0.3
Security guard services ³	48-1	03/09	119.9	122.0	122.0	3.7	0.0	0.1	0.1	0.0
Janitorial services ³	49-1	03/09	112.3	112.0	112.3	0.1	0.3	0.0	-0.2	0.3
Waste collection.....	50-1	12/08	136.3	134.6	134.7	2.7	0.1	0.6	-0.3	0.2
Traveler accommodation services.....	53-11	06/09	116.6	102.2	103.3	-20.8	1.1	-4.0	2.4	-3.2
Commercial and industrial machinery and equipment repair and maintenance ³	55-1	03/09	127.2	127.2	127.3	2.3	0.1	0.0	0.0	0.1
Aircraft repair and maintenance.....	55-4	04/09	129.4	126.2	126.2	0.2	0.0	-0.8	0.2	0.2
Metal treatment services ³	59-1	12/84	189.9	189.3	189.8	0.9	0.3	0.2	-0.2	0.3
Construction for intermediate demand.....		11/09	119.6	121.0	119.5	-0.1	-1.2	0.1	0.1	-1.2
Maintenance and repair of non-residential buildings (partial) ³	80-2	12/10	120.9	122.3	120.8	-0.1	-1.2	0.1	0.1	-1.2

¹ Further information about the Final Demand-Intermediate Demand Aggregation system is available online at <https://www.bls.gov/ppi/fdidaggregation.htm>

² The indexes for March 2020 have been recalculated to incorporate late reports and corrections by respondents. All indexes are subject to revision 4 months after original publication.

³ Not seasonally adjusted.

⁴ Trade indexes measure changes in margins received by wholesalers and retailers.

"-" Data not available.

NOTE: The term "(partial)" denotes incomplete coverage of the index category.

Table 6. Producer price indexes and percent changes for selected commodity groupings of intermediate demand by production flow category¹
 [1982=100, unless otherwise indicated]

Grouping	Commodity code	Other index base	Unadjusted index			Unadjusted percent change to July 2020 from:		Seasonally adjusted percent change from:		
			Mar. 2020 ²	June 2020 ²	July 2020 ²	July 2019	June 2020	Apr. to May	May to June	June to July
Stage 4 intermediate demand.³		11/09	118.8	117.8	118.9	-0.4	0.9	0.2	0.3	1.0
Stage 4 intermediate demand goods		04/10	111.5	111.2	112.2	-1.0	0.9	0.5	0.3	0.9
Grains	01-2		153.1	134.5	133.5	-20.5	-0.7	-4.1	3.8	4.2
Meats	02-21		175.2	196.4	177.6	-2.2	-9.6	40.4	-27.7	-8.0
Unprocessed and packaged fish ³	02-23		345.5	331.5	358.2	6.1	8.1	-0.5	-0.7	8.1
Dairy products	02-3		201.1	199.7	208.5	2.5	4.4	-4.0	6.6	4.0
Commercial electric power	05-42		193.1	206.3	211.7	0.9	2.6	-1.6	1.5	2.1
Industrial electric power	05-43		233.2	251.2	253.1	-0.1	0.8	-1.4	2.4	-0.6
Gasoline	05-71		133.3	124.5	136.6	-31.3	9.7	43.9	26.3	10.1
No. 2 diesel fuel	05-73-03		169.7	137.9	181.4	-17.5	31.5	-16.2	28.0	31.3
Basic organic chemicals	06-14		233.5	203.4	209.6	-14.7	3.0	-5.2	5.2	3.4
Prepared paint ³	06-21		301.9	304.3	306.5	2.0	0.7	0.0	0.2	0.7
Medicinal and botanical chemicals ³	06-31		184.1	179.3	179.3	-1.2	0.0	0.0	-3.3	0.0
Biological products, including diagnostics	06-37		280.1	280.0	281.5	2.2	0.5	0.6	0.1	0.5
Pharmaceutical preparations	06-38	06/01	274.6	274.5	274.8	2.4	0.1	0.2	0.0	0.3
Plastic construction products ³	07-21	00/82	231.3	229.2	230.5	0.1	0.6	-0.5	-0.5	0.6
Unsupported plastic film, sheet, and other shapes ³	07-22		218.6	216.7	218.4	-1.6	0.8	-1.0	-0.9	0.8
Parts for manufacturing from plastics ³	07-26		152.6	153.1	152.6	-1.2	-0.3	0.0	-0.1	-0.3
Plastic packaging products ³	07-2A	12/06	113.9	113.1	111.8	-4.4	-1.1	-0.2	-0.3	-1.1
Lumber	08-1	00/82	222.1	224.3	239.6	14.1	6.8	2.0	8.2	7.6
Millwork	08-2		267.3	268.2	270.9	2.6	1.0	0.1	-0.2	1.1
Paper boxes and containers ³	09-15-03		268.1	266.8	267.4	-0.8	0.2	0.0	-0.4	0.2
Commercial printing ³	09-47	06/82	178.7	177.5	178.0	0.2	0.3	-0.1	-0.8	0.3
Steel mill products ³	10-17		188.7	181.0	179.9	-10.5	-0.6	-3.1	-1.0	-0.6
Nonferrous wire and cable ³	10-26		241.0	239.7	242.6	-1.6	1.2	0.4	-0.5	1.2
Fabricated structural metal products	10-7		238.9	240.2	239.0	-1.4	-0.5	0.0	0.6	-0.5
Other miscellaneous metal products ³	10-89		166.3	166.3	166.1	-0.5	-0.1	0.1	0.1	-0.1
Air conditioning and refrigeration equipment	11-48		203.7	204.1	203.5	1.0	-0.3	-0.3	0.5	-0.3
Wiring devices ³	11-71		239.4	239.6	240.7	1.4	0.5	-0.7	0.2	0.5
Electronic components and accessories	11-78		65.6	64.8	64.7	-1.1	-0.2	0.2	0.0	0.0
Miscellaneous electrical machinery and equipment ³	11-79		124.6	124.5	124.8	-1.4	0.2	-0.1	-0.1	0.2
Internal combustion engines ³	11-94		170.9	171.1	171.2	0.8	0.1	0.2	0.0	0.1
Machine shop products ³	11-95		195.0	195.6	195.2	0.9	-0.2	0.3	0.0	-0.2
Concrete ingredients and related products	13-2		317.8	322.3	321.5	3.0	-0.2	-0.4	0.5	0.1
Concrete products	13-3		279.0	279.3	279.0	2.2	-0.1	0.1	0.0	0.0
Prepared asphalt, tar roofing and siding products ³	13-61		250.2	247.9	253.5	4.1	2.3	-1.3	1.3	2.3
Paving mixtures and blocks ³	13-94		330.7	313.1	304.7	-5.9	-2.7	0.0	-0.8	-2.7
Motor vehicle parts ³	14-12		127.7	127.7	127.7	0.5	0.0	0.0	0.0	0.0
Aircraft engines and engine parts	14-23	12/85	230.7	232.0	231.8	0.9	-0.1	0.2	0.3	-0.1
Aircraft parts and auxiliary equipment, n.e.c.	14-25	06/85	190.7	192.3	192.3	2.1	0.0	0.7	-0.1	0.1
Medical, surgical and personal aid devices	15-6		186.1	186.0	186.1	2.0	0.1	0.3	0.1	0.0
Stage 4 intermediate demand services		04/10	122.5	120.8	122.0	0.1	1.0	-0.2	0.5	1.0
Truck transportation of freight ³	30-12	06/09	124.7	119.6	122.2	-2.5	2.2	-2.4	-0.5	2.2
Courier, messenger, and U.S. postal services	30-16	06/09	151.3	150.2	150.5	2.7	0.2	0.1	0.5	0.3
Airline passenger services	30-22	12/08	107.5	111.2	102.9	-14.8	-7.5	12.4	4.8	-7.0
Warehousing, storage, and related services ³	32-1	12/08	106.6	105.0	105.6	-1.2	0.6	0.2	-1.9	0.6
Advertising space sales in periodicals and newspapers ³	36-11	06/09	100.7	98.9	99.3	-3.2	0.4	-0.4	0.2	0.4
Data processing and related services ³	38-1	06/09	103.4	103.0	103.5	2.3	0.5	-0.5	0.9	0.5
Business loans (partial)	39-11	04/09	201.7	168.2	156.5	-32.3	-7.0	-9.9	-2.0	-4.6
Deposit services (partial) ³	39-2	04/09	61.2	59.3	60.5	-10.6	2.0	0.3	-4.2	2.0
Securities brokerage, dealing, investment advice, and related services ³	40-1	06/09	160.2	132.8	135.3	-17.7	1.9	-10.0	2.3	1.9
Portfolio management ³	40-2	12/08	227.9	214.2	230.9	4.9	7.8	3.9	2.2	7.8
Investment banking ³	40-3	12/08	207.3	192.9	199.1	7.9	3.2	2.8	-5.8	3.2
Insurance	41-11	06/09	126.1	126.1	126.3	1.5	0.2	0.6	0.1	0.0
Annuities ³	41-2	03/09	118.5	118.1	118.5	0.7	0.3	0.0	0.4	0.3
Nonresidential real estate rents ³	43-11	06/09	117.3	120.4	121.6	3.3	1.0	-4.2	7.2	1.0
Nonresidential property sales and leases ³	43-12	12/08	128.2	129.0	130.9	4.3	1.5	1.0	-0.9	1.5
Nonresidential property management fees ³	43-13	12/08	94.3	88.3	83.5	-8.4	-5.4	5.4	-7.3	-5.4
Residential property management fees ³	43-22	12/08	118.2	118.2	118.3	0.0	0.1	-0.1	0.0	0.1
Construction, mining, and forestry machinery and equipment rental and leasing ³	44-3	03/09	99.3	97.8	96.1	-3.5	-1.7	0.0	0.1	-1.7
Legal services	45-1	03/09	139.6	140.4	142.5	5.6	1.5	0.4	0.0	1.9
Advertising agency services ³	45-51	12/08	108.2	108.1	108.1	-2.1	0.0	0.0	-0.4	0.0
Accounting services (partial)	45-2	06/09	115.7	113.1	109.8	-2.2	-2.9	0.0	-1.4	-3.5
Architectural and engineering services ³	45-3	06/09	118.9	117.7	117.7	-0.1	0.0	-1.3	0.2	0.0
Management, scientific, and technical consulting services	45-4	06/09	98.9	97.3	96.8	-6.8	-0.5	-1.1	-0.8	-0.4
Staffing services	46-3	06/09	115.9	118.8	118.5	2.5	-0.3	1.7	0.6	-0.3

See footnotes at end of table.

Table 6. Producer price indexes and percent changes for selected commodity groupings of intermediate demand by production flow category¹ — Continued
 [1982=100, unless otherwise indicated]

Grouping	Commodity code	Other index base	Unadjusted index			Unadjusted percent change to July 2020 from:		Seasonally adjusted percent change from:		
			Mar. 2020 ²	June 2020 ²	July 2020 ²	July 2019	June 2020	Apr. to May	May to June	June to July
Janitorial services ³	49-1	03/09	112.3	112.0	112.3	0.1	0.3	0.0	-0.2	0.3
Commercial and industrial machinery and equipment repair and maintenance ³	55-1	03/09	127.2	127.2	127.3	2.3	0.1	0.0	0.0	0.1
Machinery and equipment parts and supplies wholesaling ³	57-11-02	03/09	131.6	130.7	133.5	2.4	2.1	1.7	-0.8	2.1
Building materials, paint, and hardware wholesaling.....	57-3	03/09	103.4	102.5	103.3	2.8	0.8	-2.6	1.2	1.9
Metals, minerals, and ores wholesaling ³	57-4	03/09	169.3	158.5	159.4	2.9	0.6	1.5	-4.5	0.6
Chemicals and allied products wholesaling ³	57-5	03/09	113.2	121.6	120.9	6.6	-0.6	1.8	2.7	-0.6
Paper and plastics products wholesaling ³	57-6	03/09	140.6	141.6	141.3	9.2	-0.2	-0.3	-0.6	-0.2
Food and alcohol wholesaling ³	57-8	06/09	115.7	114.1	114.7	-0.1	0.5	-0.2	-0.9	0.5
Hardware and building materials and supplies retailing.....	58-D	03/09	124.7	127.9	135.1	9.4	5.6	1.6	-0.2	5.8
Metal treatment services ³	59-1	12/84	189.9	189.3	189.8	0.9	0.3	0.2	-0.2	0.3
Stage 3 intermediate demand.....		11/09	114.0	109.8	111.6	-5.2	1.6	0.3	0.4	1.7
Stage 3 intermediate demand goods.....		04/10	99.8	93.7	96.8	-9.7	3.3	1.2	0.8	3.5
Slaughter cattle.....	01-31		164.5	159.9	149.6	-11.0	-6.4	7.7	-2.2	-5.7
Slaughter hogs.....	01-32		71.5	64.1	59.4	-32.2	-7.3	41.6	-39.3	-12.8
Slaughter poultry.....	01-4		209.7	193.9	189.7	-19.6	-2.2	41.5	-5.5	4.5
Raw milk.....	01-6		137.3	87.1	126.3	-11.5	45.0	-22.4	-13.0	43.7
Commercial electric power.....	05-42		193.1	206.3	211.7	0.9	2.6	-1.6	1.5	2.1
Industrial electric power.....	05-43		233.2	251.2	253.1	-0.1	0.8	-1.4	2.4	-0.6
Gasoline.....	05-71		133.3	124.5	136.6	-31.3	9.7	43.9	26.3	10.1
Jet fuel ³	05-72-03		145.2	105.4	121.2	-40.0	15.0	-12.6	47.0	15.0
No. 2 diesel fuel.....	05-73-03		169.7	137.9	181.4	-17.5	31.5	-16.2	28.0	31.3
Finished lubricants ³	05-76		439.5	436.3	433.4	-0.8	-0.7	-0.5	-0.1	-0.7
Lubricating oil base stocks ³	05-78	06/09	94.9	67.3	83.5	-31.4	24.1	33.4	-41.7	24.1
Asphalt.....	05-81-02	06/85	191.8	141.8	158.0	-38.1	11.4	-14.6	8.5	4.7
Basic inorganic chemicals ³	06-13		270.1	270.2	272.6	-1.9	0.9	0.6	-0.8	0.9
Basic organic chemicals.....	06-14		233.5	203.4	209.6	-14.7	3.0	-5.2	5.2	3.4
Paints and allied products ³	06-2		295.6	297.8	299.5	1.1	0.6	0.2	0.2	0.6
Agricultural chemicals and chemical products.....	06-5		205.2	207.8	207.0	-7.8	-0.4	1.7	0.8	1.5
Plastic resins and materials.....	06-6		220.1	203.7	207.3	-7.4	1.8	-5.1	2.0	1.7
Synthetic rubber ³	07-11-02		200.9	189.1	184.1	-11.2	-2.6	-1.0	-0.5	-2.6
Unsupported plastic film, sheet, and other shapes ³	07-22		218.6	216.7	218.4	-1.6	0.8	-1.0	-0.9	0.8
Paper ³	09-13		195.0	193.6	194.4	-3.2	0.4	-1.4	0.3	0.4
Paperboard ³	09-14		256.0	255.7	256.1	-3.3	0.2	-0.1	0.2	0.2
Converted paper and paperboard products ³	09-15		241.2	240.0	240.9	-0.1	0.4	-0.2	-0.2	0.4
Commercial printing ³	09-47	06/82	178.7	177.5	178.0	0.2	0.3	-0.1	-0.8	0.3
Foundry and forge shop products ³	10-15		212.5	211.9	212.2	0.2	0.1	-0.2	0.0	0.1
Steel mill products ³	10-17		188.7	181.0	179.9	-10.5	-0.6	-3.1	-1.0	-0.6
Nonferrous mill shapes ³	10-25		201.0	191.5	196.7	-7.7	2.7	-2.1	0.9	2.7
Nonferrous foundry shop products.....	10-28		211.4	210.8	211.6	-1.0	0.4	0.0	0.0	0.5
Metal containers ³	10-3		163.5	162.2	162.8	0.1	0.4	-0.1	-0.4	0.4
Structural, architectural, and pre-engineered metal products.....	10-74		231.3	234.0	229.6	-3.9	-1.9	0.4	1.9	-2.2
Bolts, nuts, screws, rivets, and washers ³	10-81		211.8	221.0	220.0	4.9	-0.5	3.6	0.5	-0.5
Other miscellaneous metal products ³	10-89		166.3	166.3	166.1	-0.5	-0.1	0.1	0.1	-0.1
General purpose machinery and equipment.....	11-4		250.7	251.0	250.9	1.3	0.0	0.0	0.2	-0.1
Electrical machinery and equipment.....	11-7		118.0	117.6	117.7	0.6	0.1	0.1	0.1	0.2
Construction sand, gravel, and crushed stone.....	13-21		362.1	366.9	365.5	3.7	-0.4	-0.1	0.4	-0.2
Cement.....	13-22		256.9	261.3	261.7	1.2	0.2	-1.2	0.9	0.8
Motor vehicle parts ³	14-12		127.7	127.7	127.7	0.5	0.0	0.0	0.0	0.0
Aircraft and aircraft equipment.....	14-2		279.6	280.9	280.9	1.3	0.0	0.3	0.1	0.0
Stage 3 intermediate demand services.....		04/10	120.5	118.7	119.1	-0.6	0.3	-0.4	0.0	0.3
Rail transportation of freight and mail ³	30-11	12/08	129.5	126.9	126.6	-1.9	-0.2	-1.2	-0.2	-0.2
Courier, messenger, and U.S. postal services.....	30-16	06/09	151.3	150.2	150.5	2.7	0.2	0.1	0.5	0.3
Arrangement of freight and cargo ³	31-31	12/08	105.7	103.7	98.5	-8.6	-5.0	-0.1	-2.5	-5.0
Freight forwarding ³	31-32-01	12/08	98.8	97.7	96.9	-1.5	-0.8	1.6	-2.4	-0.8
Warehousing, storage, and related services ³	32-1	12/08	106.6	105.0	105.6	-1.2	0.6	0.2	-1.9	0.6
Advertising space sales in periodicals, newspapers, directories, and mailing lists ³	36-1	06/09	100.0	98.6	98.9	-2.7	0.3	-0.4	0.2	0.3
Wired telephone services ³	37-1	06/09	118.7	118.1	118.0	1.0	-0.1	-0.3	0.0	-0.1
Bundled wired telecommunications access services ³	37-5	12/11	114.8	115.2	115.1	5.1	-0.1	2.9	0.0	-0.1
Data processing and related services ³	38-1	06/09	103.4	103.0	103.5	2.3	0.5	-0.5	0.9	0.5
Business loans (partial).....	39-11	04/09	201.7	168.2	156.5	-32.3	-7.0	-9.9	-2.0	-4.6
Deposit services (partial) ³	39-2	04/09	61.2	59.3	60.5	-10.6	2.0	0.3	-4.2	2.0
Securities brokerage, dealing, investment advice, and related services ³	40-1	06/09	160.2	132.8	135.3	-17.7	1.9	-10.0	2.3	1.9
Insurance.....	41-11	06/09	126.1	126.1	126.3	1.5	0.2	0.6	0.1	0.0
Nonresidential real estate rents ³	43-11	06/09	117.3	120.4	121.6	3.3	1.0	-4.2	7.2	1.0
Legal services.....	45-1	03/09	139.6	140.4	142.5	5.6	1.5	0.4	0.0	1.9

See footnotes at end of table.

Table 6. Producer price indexes and percent changes for selected commodity groupings of intermediate demand by production flow category¹ — Continued
 [1982=100, unless otherwise indicated]

Grouping	Commodity code	Other index base	Unadjusted index			Unadjusted percent change to July 2020 from:		Seasonally adjusted percent change from:		
			Mar. 2020 ²	June 2020 ²	July 2020 ²	July 2019	June 2020	Apr. to May	May to June	June to July
Accounting services (partial).....	45-2	06/09	115.7	113.1	109.8	-2.2	-2.9	0.0	-1.4	-3.5
Architectural and engineering services ³	45-3	06/09	118.9	117.7	117.7	-0.1	0.0	-1.3	0.2	0.0
Management, scientific, and technical consulting services.....	45-4	06/09	98.9	97.3	96.8	-6.8	-0.5	-1.1	-0.8	-0.4
Advertising agency services ³	45-51	12/08	108.2	108.1	108.1	-2.1	0.0	0.0	-0.4	0.0
Staffing services.....	46-3	06/09	115.9	118.8	118.5	2.5	-0.3	1.7	0.6	-0.3
Aircraft repair maintenance.....	55-4	04/09	129.4	126.2	126.2	0.2	0.0	-0.8	0.2	0.2
Machinery and equipment parts and supplies wholesaling ³	57-11-02	03/09	131.6	130.7	133.5	2.4	2.1	1.7	-0.8	2.1
Building materials, paint, and hardware wholesaling.....	57-3	03/09	103.4	102.5	103.3	2.8	0.8	-2.6	1.2	1.9
Metals, minerals, and ores wholesaling ³	57-4	03/09	169.3	158.5	159.4	2.9	0.6	1.5	-4.5	0.6
Chemicals and allied products wholesaling ³	57-5	03/09	113.2	121.6	120.9	6.6	-0.6	1.8	2.7	-0.6
Paper and plastics products wholesaling ³	57-6	03/09	140.6	141.6	141.3	9.2	-0.2	-0.3	-0.6	-0.2
Food wholesaling ³	57-81-01	03/09	113.6	112.0	112.5	-1.1	0.4	0.2	-1.2	0.4
Metal treatment services ³	59-1	12/84	189.9	189.3	189.8	0.9	0.3	0.2	-0.2	0.3
Stage 2 intermediate demand.....		11/09	100.7	99.9	99.8	-5.6	-0.1	1.9	1.9	0.0
Stage 2 intermediate demand goods.....		04/10	75.2	75.4	74.5	-13.5	-1.2	5.0	4.9	-1.2
Corn.....	01-22-02		154.4	128.1	127.2	-28.0	-0.7	-5.0	6.3	6.7
Oilseeds.....	01-83		163.7	161.5	164.1	1.5	1.6	2.9	-1.1	-2.8
Prepared animal feeds.....	02-9		190.9	189.9	188.3	0.5	-0.8	-0.3	-1.2	-0.7
Coal.....	05-1		189.3	192.6	190.1	-5.4	-1.3	2.8	-0.3	-1.0
Natural gas ³	05-31		55.4	53.1	52.3	-29.5	-1.5	36.5	-18.4	-1.5
Liquefied petroleum gas ³	05-32		57.1	92.5	94.7	-5.2	2.4	54.0	21.6	2.4
Crude petroleum ³	05-61		89.8	108.8	94.0	-42.1	-13.6	41.6	71.9	-13.6
No. 2 diesel fuel.....	05-73-03		169.7	137.9	181.4	-17.5	31.5	-16.2	28.0	31.3
Industrial chemicals.....	06-1		237.9	211.9	217.6	-12.7	2.7	-4.3	4.1	2.9
Plastic resins and materials.....	06-6		220.1	203.7	207.3	-7.4	1.8	-5.1	2.0	1.7
Plastic products ³	07-2		207.2	205.9	205.6	-1.7	-0.1	-0.2	-0.4	-0.1
Logs, bolts, timber, pulpwood, and wood chips.....	08-5		239.0	234.4	230.5	-3.6	-1.7	-1.2	-0.6	-1.7
Paper ³	09-13		195.0	193.6	194.4	-3.2	0.4	-1.4	0.3	0.4
Paperboard, excluding corrugated paperboard ³	09-14-11	12/82	267.8	268.4	269.0	-2.7	0.2	0.3	0.3	0.2
Commercial printing ³	09-47	06/82	178.7	177.5	178.0	0.2	0.3	-0.1	-0.8	0.3
Iron and steel scrap ³	10-12		402.9	378.6	362.2	-5.3	-4.3	11.3	-0.9	-4.3
Steel mill products ³	10-17		188.7	181.0	179.9	-10.5	-0.6	-3.1	-1.0	-0.6
Nonferrous mill shapes ³	10-25		201.0	191.5	196.7	-7.7	2.7	-2.1	0.9	2.7
Electrical machinery and equipment.....	11-7		118.0	117.6	117.7	0.6	0.1	0.1	0.1	0.2
Electronic components and accessories.....	11-78		65.6	64.8	64.7	-1.1	-0.2	0.2	0.0	0.0
Stage 2 intermediate demand services.....		04/10	120.7	118.8	119.5	-0.2	0.6	0.1	0.3	0.8
Rail transportation of freight and mail ³	30-11	12/08	129.5	126.9	126.6	-1.9	-0.2	-1.2	-0.2	-0.2
Truck transportation of freight ³	30-12	06/09	124.7	119.6	122.2	-2.5	2.2	-2.4	-0.5	2.2
Pipeline transportation of petroleum products.....	30-15-01	12/08	161.1	160.6	166.6	3.1	3.7	0.4	0.2	1.5
U.S. Postal Service.....	30-16-01	06/89	237.5	237.5	237.5	2.3	0.0	0.3	0.1	-0.1
Courier and messenger services, except air.....	30-16-02	04/09	168.2	167.5	167.5	3.9	0.0	0.1	0.4	0.3
Air mail and package delivery services, excluding by USPS.....	30-16-03	04/09	184.4	178.4	180.1	1.1	1.0	-1.2	2.2	1.3
Airline passenger services.....	30-22	12/08	107.5	111.2	102.9	-14.8	-7.5	12.4	4.8	-7.0
Arrangement of freight and cargo ³	31-31	12/08	105.7	103.7	98.5	-8.6	-5.0	-0.1	-2.5	-5.0
Television advertising time sales.....	36-21	06/09	109.2	99.1	100.5	-2.4	1.4	-4.9	3.8	6.6
Wireless telecommunication services.....	37-2	06/09	65.2	63.8	64.0	-1.8	0.3	-2.3	-0.3	0.3
Data processing and related services ³	38-1	06/09	103.4	103.0	103.5	2.3	0.5	-0.5	0.9	0.5
Securities brokerage, dealing, investment advice, and related services ³	40-1	06/09	160.2	132.8	135.3	-17.7	1.9	-10.0	2.3	1.9
Portfolio management ³	40-2	12/08	227.9	214.2	230.9	4.9	7.8	3.9	2.2	7.8
Investment banking ³	40-31	12/08	207.3	192.9	199.1	7.9	3.2	2.8	-5.8	3.2
Insurance.....	41-11	06/09	126.1	126.1	126.3	1.5	0.2	0.6	0.1	0.0
Commissions from sales of insurance ³	42-11	06/09	108.6	108.7	108.7	0.6	0.0	0.0	0.2	0.0
Legal services.....	45-1	03/09	139.6	140.4	142.5	5.6	1.5	0.4	0.0	1.9
Accounting services (partial).....	45-2	06/09	115.7	113.1	109.8	-2.2	-2.9	0.0	-1.4	-3.5
Management, scientific, and technical consulting services.....	45-4	06/09	98.9	97.3	96.8	-6.8	-0.5	-1.1	-0.8	-0.4
Advertising agency services ³	45-51	12/08	108.2	108.1	108.1	-2.1	0.0	0.0	-0.4	0.0
Staffing services.....	46-3	06/09	115.9	118.8	118.5	2.5	-0.3	1.7	0.6	-0.3
Security guard services ³	48-1	03/09	119.9	122.0	122.0	3.7	0.0	0.1	0.1	0.0
Janitorial services ³	49-1	03/09	112.3	112.0	112.3	0.1	0.3	0.0	-0.2	0.3
Traveler accommodation services.....	53-1	06/09	116.6	102.2	103.3	-20.8	1.1	-4.0	2.4	-3.2
Commercial and industrial machinery and equipment repair and maintenance ³	55-1	03/09	127.2	127.2	127.3	2.3	0.1	0.0	0.0	0.1
Hardware and building materials and supplies retailing.....	58-D	03/09	124.7	127.9	135.1	9.4	5.6	1.6	-0.2	5.8
Stage 1 intermediate demand.....		11/09	111.0	108.0	109.5	-4.5	1.4	-0.6	1.7	1.4
Stage 1 intermediate demand goods.....		04/10	91.1	88.1	90.3	-6.1	2.5	-0.7	3.2	2.6
Prepared animal feeds.....	02-9		190.9	189.9	188.3	0.5	-0.8	-0.3	-1.2	-0.7
Commercial electric power.....	05-42		193.1	206.3	211.7	0.9	2.6	-1.6	1.5	2.1

See footnotes at end of table.

Table 6. Producer price indexes and percent changes for selected commodity groupings of intermediate demand by production flow category¹ — Continued
 [1982=100, unless otherwise indicated]

Grouping	Commodity code	Other index base	Unadjusted index			Unadjusted percent change to July 2020 from:		Seasonally adjusted percent change from:		
			Mar. 2020 ²	June 2020 ²	July 2020 ²	July 2019	June 2020	Apr. to May	May to June	June to July
Industrial electric power.....	05-43		233.2	251.2	253.1	-0.1	0.8	-1.4	2.4	-0.6
Commercial natural gas.....	05-52	12/90	187.3	180.1	178.1	-3.9	-1.1	0.6	0.6	-1.1
Industrial natural gas.....	05-53	12/90	136.9	130.5	126.7	-9.4	-2.9	1.2	-0.4	-3.1
Gasoline.....	05-71		133.3	124.5	136.6	-31.3	9.7	43.9	26.3	10.1
No. 2 diesel fuel.....	05-73-03		169.7	137.9	181.4	-17.5	31.5	-16.2	28.0	31.3
Industrial chemicals.....	06-1		237.9	211.9	217.6	-12.7	2.7	-4.3	4.1	2.9
Prepared paint ³	06-21		301.9	304.3	306.5	2.0	0.7	0.0	0.2	0.7
Plastic construction products ³	07-21		231.3	229.2	230.5	0.1	0.6	-0.5	-0.5	0.6
Recyclable paper ³	09-12		184.3	317.9	261.3	69.6	-17.8	18.3	-1.9	-17.8
Paper ³	09-13		195.0	193.6	194.4	-3.2	0.4	-1.4	0.3	0.4
Converted paper and paperboard products ³	09-15		241.2	240.0	240.9	-0.1	0.4	-0.2	-0.2	0.4
Iron and steel scrap ³	10-12		402.9	378.6	362.2	-5.3	-4.3	11.3	-0.9	-4.3
Steel mill products ³	10-17		188.7	181.0	179.9	-10.5	-0.6	-3.1	-1.0	-0.6
Primary nonferrous metals ³	10-22		182.5	182.1	188.7	2.8	3.6	0.2	3.7	3.6
Nonferrous scrap.....	10-23		386.5	361.4	374.5	7.4	3.6	-5.8	5.2	3.9
Nonferrous wire and cable ³	10-26		241.0	239.7	242.6	-1.6	1.2	0.4	-0.5	1.2
Fabricated structural metal products.....	10-7		238.9	240.2	239.0	-1.4	-0.5	0.0	0.6	-0.5
General purpose machinery and equipment.....	11-4		250.7	251.0	250.9	1.3	0.0	0.0	0.2	-0.1
Construction sand, gravel, and crushed stone.....	13-21		362.1	366.9	365.5	3.7	-0.4	-0.1	0.4	-0.2
Stage 1 intermediate demand services.....		04/10	122.7	120.1	120.2	-2.6	0.1	-0.7	0.3	0.1
Truck transportation of freight ³	30-12	06/09	124.7	119.6	122.2	-2.5	2.2	-2.4	-0.5	2.2
Airline passenger services.....	30-22	12/08	107.5	111.2	102.9	-14.8	-7.5	12.4	4.8	-7.0
Advertising space sales in periodicals, newspapers, directories, and mailing lists ³	36-1	06/09	100.0	98.6	98.9	-2.7	0.3	-0.4	0.2	0.3
Business wired telecommunication services ³	37-12	06/09	102.3	102.0	102.0	0.5	0.0	0.0	0.0	0.0
Wireless telecommunication services.....	37-2	06/09	65.2	63.8	64.0	-1.8	0.3	-2.3	-0.3	0.3
Bundled wired telecommunications access services ³	37-5	12/11	114.8	115.2	115.1	5.1	-0.1	2.9	0.0	-0.1
Business loans (partial).....	39-11	04/09	201.7	168.2	156.5	-32.3	-7.0	-9.9	-2.0	-4.6
Deposit services (partial) ³	39-2	04/09	61.2	59.3	60.5	-10.6	2.0	0.3	-4.2	2.0
Securities brokerage, dealing, investment advice, and related services ³	40-1	06/09	160.2	132.8	135.3	-17.7	1.9	-10.0	2.3	1.9
Portfolio management ³	40-2	12/08	227.9	214.2	230.9	4.9	7.8	3.9	2.2	7.8
Investment banking ³	40-3	12/08	207.3	192.9	199.1	7.9	3.2	2.8	-5.8	3.2
Insurance.....	41-11	06/09	126.1	126.1	126.3	1.5	0.2	0.6	0.1	0.0
Nonresidential real estate rents ³	43-11	06/09	117.3	120.4	121.6	3.3	1.0	-4.2	7.2	1.0
Architectural and engineering services ³	45-3	06/09	118.9	117.7	117.7	-0.1	0.0	-1.3	0.2	0.0
Management consulting services.....	45-41	06/09	98.9	97.3	96.8	-6.8	-0.5	-1.1	-0.8	-0.4
Waste collection.....	50-1	12/08	136.3	134.6	134.7	2.7	0.1	0.6	-0.3	0.2
Traveler accommodation services.....	53-11	06/09	116.6	102.2	103.3	-20.8	1.1	-4.0	2.4	-3.2
Commercial and industrial machinery and equipment repair and maintenance ³	55-1	03/09	127.2	127.2	127.3	2.3	0.1	0.0	0.0	0.1
Machinery and equipment parts and supplies wholesaling ³	57-11-02	03/09	131.6	130.7	133.5	2.4	2.1	1.7	-0.8	2.1
Building materials, paint, and hardware wholesaling.....	57-3	03/09	103.4	102.5	103.3	2.8	0.8	-2.6	1.2	1.9
Metals, minerals, and ores wholesaling ³	57-4	03/09	169.3	158.5	159.4	2.9	0.6	1.5	-4.5	0.6
Chemicals and allied products wholesaling ³	57-5	03/09	113.2	121.6	120.9	6.6	-0.6	1.8	2.7	-0.6
Paper and plastics products wholesaling ³	57-6	03/09	140.6	141.6	141.3	9.2	-0.2	-0.3	-0.6	-0.2
Hardware and building materials and supplies retailing.....	58-D	03/09	124.7	127.9	135.1	9.4	5.6	1.6	-0.2	5.8
Mining services ³	60-1	06/85	226.3	221.5	220.9	-5.4	-0.3	0.5	-0.5	-0.3

¹ Further information about the Final Demand-Intermediate Demand Aggregation system is available online at <https://www.bls.gov/ppi/fdidaggregation.htm>

² The indexes for March 2020 have been recalculated to incorporate late reports and corrections by respondents. All indexes are subject to revision 4 months after original publication.

³ Not seasonally adjusted.

"-" Data not available.

NOTE: The term "(partial)" denotes incomplete coverage of the index category.

Table 7. Producer price indexes for selected final demand and intermediate demand categories, seasonally adjusted

[Nov 2009=100, unless otherwise indicated]

Grouping	Other index base	Index ¹					
		Feb. 2020	Mar. 2020	Apr. 2020	May 2020	June 2020	July 2020
Final demand.....		118.6	118.1	117.0	117.5	117.3	118.0
Final demand goods.....		115.4	113.7	110.5	112.3	112.5	113.4
Final demand foods.....		119.3	119.2	118.7	125.8	119.2	118.6
Final demand energy.....		102.3	93.0	77.4	80.9	87.1	91.7
Final demand goods less foods and energy.....		118.2	118.2	117.8	117.8	117.9	118.3
Final demand services.....		119.7	119.8	119.8	119.6	119.2	119.8
Final demand trade services.....		119.5	120.6	123.8	122.8	120.6	121.6
Final demand transportation and warehousing services.....		125.7	122.0	117.1	118.8	119.9	119.0
Final demand services less trade, transportation, and warehousing.....		119.2	119.3	118.2	118.2	118.5	119.0
Intermediate demand by commodity type							
Processed goods for intermediate demand.....	00/82	195.2	192.2	185.8	186.0	187.7	190.5
Materials and components for manufacturing.....	00/82	182.2	181.4	177.8	177.4	177.3	178.2
Materials and components for construction.....	00/82	252.6	254.1	252.5	252.4	253.8	255.0
Processed fuels and lubricants for intermediate demand.....	00/82	169.2	156.5	135.2	135.3	145.0	155.8
Containers for intermediate demand.....	00/82	236.8	236.0	235.7	235.2	234.6	235.0
Supplies for intermediate demand.....	00/82	201.4	201.1	200.5	202.0	200.6	200.9
Unprocessed goods for intermediate demand.....	00/82	174.3	159.4	137.8	150.1	154.7	153.6
Unprocessed foodstuffs and feedstuffs.....	00/82	163.9	156.8	140.7	147.1	138.8	144.8
Unprocessed nonfood materials except fuel.....	00/82	230.8	199.2	161.7	176.7	210.6	199.8
Unprocessed fuel.....	00/82	87.7	83.8	76.7	92.2	81.6	81.0
Services for intermediate demand.....		122.0	122.1	120.0	119.5	119.7	120.5
Trade services for intermediate demand.....		127.2	127.7	127.7	128.5	127.8	129.2
Transportation and warehousing services for intermediate demand.....		130.0	128.6	126.6	127.2	127.0	126.5
Services less trade, transportation, and warehousing for intermediate demand.....		119.1	119.4	116.8	115.7	116.2	117.1
Intermediate demand by production flow							
Stage 4 intermediate demand.....		119.2	118.9	116.8	117.0	117.4	118.6
Inputs to stage 4 goods producers.....		115.4	115.2	114.2	114.7	114.5	115.0
Inputs to stage 4 services producers.....		121.2	121.1	118.9	119.1	119.5	120.7
Inputs to stage 4 construction producers.....		119.7	118.8	115.4	115.0	116.5	118.7
Stage 3 intermediate demand.....		116.0	113.9	108.5	108.8	109.2	111.1
Inputs to stage 3 goods producers.....		117.9	116.2	111.5	112.0	110.2	112.5
Inputs to stage 3 services producers.....		115.1	113.0	107.1	107.4	109.5	110.7
Inputs to stage 3 construction producers.....		106.2	100.0	88.0	84.0	91.0	101.6
Stage 2 intermediate demand.....		103.4	100.5	96.0	97.8	99.7	99.7
Inputs to stage 2 goods producers.....		88.2	82.2	75.3	78.8	82.4	81.2
Inputs to stage 2 services producers.....		118.3	118.4	116.2	116.3	116.7	117.7
Stage 1 intermediate demand.....		112.8	111.2	106.2	105.6	107.4	108.9
Inputs to stage 1 goods producers.....		106.7	105.0	99.7	99.9	101.8	102.6
Inputs to stage 1 services producers.....		117.9	116.3	111.4	109.7	111.7	114.0
Inputs to stage 1 construction producers.....		121.1	120.5	117.6	117.7	118.7	120.5
Special groupings							
Final demand less foods and energy.....	04/10	118.3	118.4	118.2	118.1	117.8	118.4
Final demand less foods.....	04/10	116.8	116.3	115.2	115.3	115.4	116.2
Final demand less energy.....	04/10	118.1	118.2	118.0	118.3	117.7	118.1
Total finished ²	01/10	118.3	117.9	117.0	117.6	117.3	117.9
Total exports.....	04/10	113.2	112.6	110.8	111.2	111.0	111.8
Total Government purchases.....	04/10	112.6	111.6	109.4	109.2	109.6	110.7
Total private capital investment (goods, services, and construction).....	04/10	116.4	116.4	117.5	117.2	116.2	117.3
Finished goods ²	00/82	206.0	202.4	196.6	201.2	201.2	202.7
Processed materials less foods and feeds.....	00/82	195.3	192.2	185.2	184.2	187.1	190.4
Processed foods and feeds.....	00/82	194.5	193.1	193.2	205.5	194.3	193.0
Processed energy goods.....	00/82	169.9	157.3	135.8	135.9	145.7	156.5
Processed materials less foods and energy.....	00/82	199.4	199.0	196.2	195.0	195.9	196.9
Unprocessed materials less agricultural products.....	00/82	173.0	152.6	128.1	145.2	159.1	152.1
Unprocessed energy materials.....	00/82	118.3	94.6	69.5	87.9	102.7	95.1
Unprocessed nonfood materials less energy.....	00/82	335.0	339.0	325.3	327.2	330.9	331.8
Total goods inputs to stage 4 intermediate demand.....	04/10	112.4	111.7	109.8	110.4	110.7	111.7
Total services inputs to stage 4 intermediate demand.....	04/10	122.4	122.5	120.3	120.1	120.7	121.9
Total goods inputs to stage 3 intermediate demand.....	04/10	103.8	99.8	90.8	91.9	92.6	95.8
Total services inputs to stage 3 intermediate demand.....	04/10	120.1	120.4	119.1	118.6	118.6	118.9
Total goods inputs to stage 2 intermediate demand.....	04/10	80.9	75.1	68.3	71.7	75.2	74.3
Total services inputs to stage 2 intermediate demand.....	04/10	120.2	120.4	118.2	118.3	118.6	119.5
Total goods inputs to stage 1 intermediate demand.....	04/10	93.8	91.3	85.3	84.7	87.4	89.7
Total services inputs to stage 1 intermediate demand.....	04/10	122.6	122.7	120.3	119.5	119.8	119.9

¹ All seasonally adjusted indexes are subject to change up to 5 years after original publication due to the recalculation of seasonal factors each January. The indexes for March 2020 have been recalculated to incorporate late reports and corrections by respondents.

² PPI defines Total finished as including only the personal consumption and private capital investment portions of final demand.

Table 8. Producer price indexes for selected commodity groupings, not seasonally adjusted
[1982=100, unless otherwise indicated]

Grouping	Commodity code	Other index base	Index			Percent change to July 2020 from:	
			Mar. 2020 ¹	June 2020 ¹	July 2020 ¹	July 2019	June 2020
Goods							
All commodities.....			193.1	191.1	192.9	-3.9	0.9
Farm products, processed foods and feeds.....			192.2	190.4	190.0	-2.3	-0.2
Farm products.....	01		157.5	144.1	147.1	-10.4	2.1
Processed foods and feeds.....	02		209.3	213.1	211.0	0.7	-1.0
Industrial commodities.....			192.8	190.7	193.0	-4.2	1.2
Textile products and apparel.....	03		149.1	149.0	149.5	-0.7	0.3
Hides, skins, leather, and related products.....	04		157.2	145.0	144.3	-10.6	-0.5
Fuels and related products and power.....	05		140.2	138.4	144.7	-16.0	4.6
Chemicals and allied products.....	06		284.4	272.8	275.6	-4.3	1.0
Rubber and plastic products.....	07		194.6	193.4	193.0	-1.6	-0.2
Lumber and wood products.....	08		241.5	241.7	248.7	5.1	2.9
Pulp, paper, and allied products.....	09		257.2	259.0	259.0	0.2	0.0
Metals and metal products.....	10		219.2	215.2	216.0	-1.9	0.4
Machinery and equipment.....	11		144.9	144.7	144.8	0.9	0.1
Furniture and household durables.....	12		178.5	178.9	179.2	1.5	0.2
Nonmetallic mineral products.....	13		258.5	257.5	257.0	1.2	-0.2
Transportation equipment.....	14		183.0	183.4	183.4	0.4	0.0
Miscellaneous products.....	15		280.2	280.7	282.6	2.9	0.7
Industrial commodities less fuels.....			207.1	205.0	205.8	-0.5	0.4
Other commodity groupings							
Petroleum products, refined.....	057		147.8	127.2	149.1	-26.2	17.2
Industrial chemicals.....	061		237.9	211.9	217.6	-12.7	2.7
Rubber and rubber products.....	071		179.5	178.4	177.5	-1.4	-0.5
Lumber.....	081		222.1	224.3	239.6	14.1	6.8
Iron and steel.....	101		210.6	202.6	200.4	-7.6	-1.1
Nonferrous metals.....	102		251.6	243.4	250.7	2.3	3.0
General purpose machinery and equipment.....	114		250.7	251.0	250.9	1.3	0.0
Electrical machinery and equipment.....	117		118.0	117.6	117.7	0.6	0.1
Electronic components and accessories.....	1178		65.6	64.8	64.7	-1.1	-0.2
Aircraft and aircraft equipment.....	142		279.6	280.9	280.9	1.3	0.0
Services and construction							
Transportation services.....	30	06/09	130.8	128.9	128.2	-3.9	-0.5
Services related to transportation activities.....	31	06/09	114.4	111.5	109.9	-5.0	-1.4
Warehousing, storage, and related activities.....	32	12/08	106.6	105.0	105.6	-1.2	0.6
Publishing sales, excluding software.....	33	06/09	126.1	127.8	129.1	5.7	1.0
Software publishing.....	34	06/09	91.8	93.0	93.1	-0.7	0.1
Network compensation from broadcast and cable television and radio.....	35	06/09	146.5	146.5	146.5	4.6	0.0
Advertising space and time sales.....	36	06/09	96.7	88.5	89.3	-6.5	0.9
Telecommunication, cable, and internet user services.....	37	06/09	104.3	103.7	103.7	1.4	0.0
Data processing and related services.....	38	06/09	103.4	103.0	103.5	2.3	0.5
Credit intermediation services (partial).....	39	06/09	88.5	81.5	80.3	-15.9	-1.5
Investment services.....	40	06/09	185.2	166.7	175.6	-3.0	5.3
Insurance and annuities.....	41	06/09	124.7	124.6	124.8	1.4	0.2
Commissions and fees from sales and administration of insurance policies (partial).....	42	06/09	108.6	108.7	108.7	0.6	0.0
Real estate services (partial).....	43	06/09	126.0	127.7	128.8	2.7	0.9
Rental and leasing of goods (partial).....	44	06/09	93.2	91.7	94.5	-4.0	3.1
Professional services (partial).....	45	06/09	121.4	120.6	120.7	0.2	0.1
Employment services.....	46	06/09	115.8	118.4	118.0	2.4	-0.3
Travel arrangement services.....	47	06/09	100.2	92.1	90.6	-17.3	-1.6
Selected security services (partial).....	48	03/09	119.9	122.0	122.0	3.7	0.0
Cleaning and building maintenance services (partial).....	49	03/09	112.3	112.0	112.3	0.1	0.3
Waste collection and remediation services (partial).....	50	12/08	136.3	134.6	134.7	2.7	0.1
Health care services.....	51	06/09	123.0	124.0	124.5	2.6	0.4
Accommodation services.....	53	06/09	116.6	102.2	103.3	-20.8	1.1
Food and beverages for immediate consumption services (partial).....	54	06/09	120.6	120.4	121.5	0.7	0.9
Repair and maintenance services (partial).....	55	06/09	133.0	132.3	132.7	1.8	0.3
Entertainment services (partial).....	56	06/09	114.7	123.3	118.2	3.1	-4.1
Wholesale trade services.....	57	06/09	122.1	122.9	124.2	1.1	1.1
Retail trade services.....	58	06/09	122.9	121.4	121.9	3.2	0.4
Metal treatment services.....	59	12/84	189.9	189.3	189.8	0.9	0.3
Mining services.....	60	06/85	226.3	221.5	220.9	-5.4	-0.3
Contract work on textile products, apparel, and leather.....	61	06/10	119.9	120.0	120.0	3.4	0.0
Construction (partial).....	80	06/09	124.3	124.9	125.2	1.6	0.2

¹ The indexes for March 2020 have been recalculated to incorporate late reports and corrections by respondents. All indexes are subject to revision 4 months after original publication.
"-" Data not available.

NOTE: The term "(partial)" denotes incomplete coverage of the index category.