



Transmission of material in this release is embargoed until  
**8:30 a.m. (ET) Friday, August 11, 2023**

USDL 23-1736

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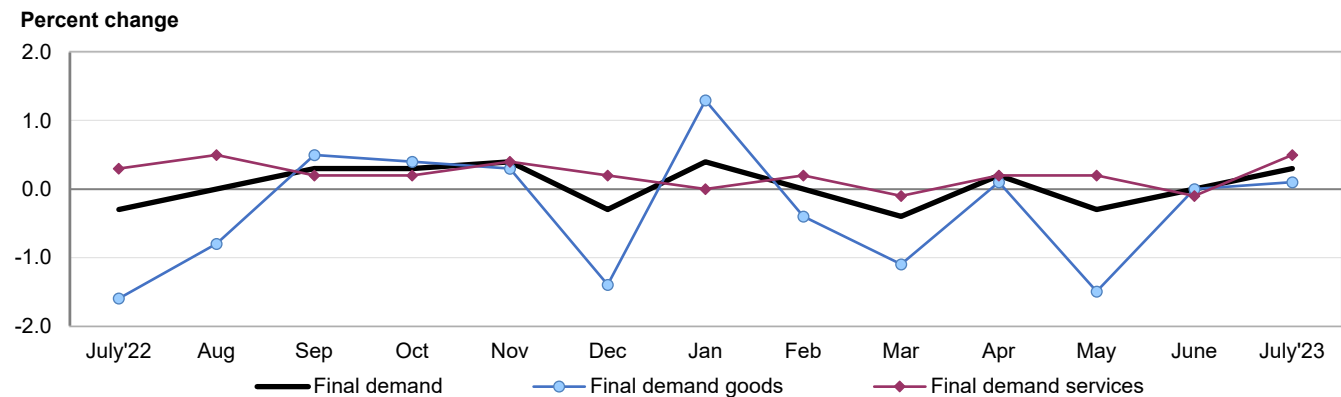
### PRODUCER PRICE INDEXES – JULY 2023

The Producer Price Index for final demand increased 0.3 percent in July, seasonally adjusted, the U.S. Bureau of Labor Statistics reported today. Final demand prices were unchanged in June and declined 0.3 percent in May. (See table A.) On an unadjusted basis, the index for final demand advanced 0.8 percent for the 12 months ended in July.

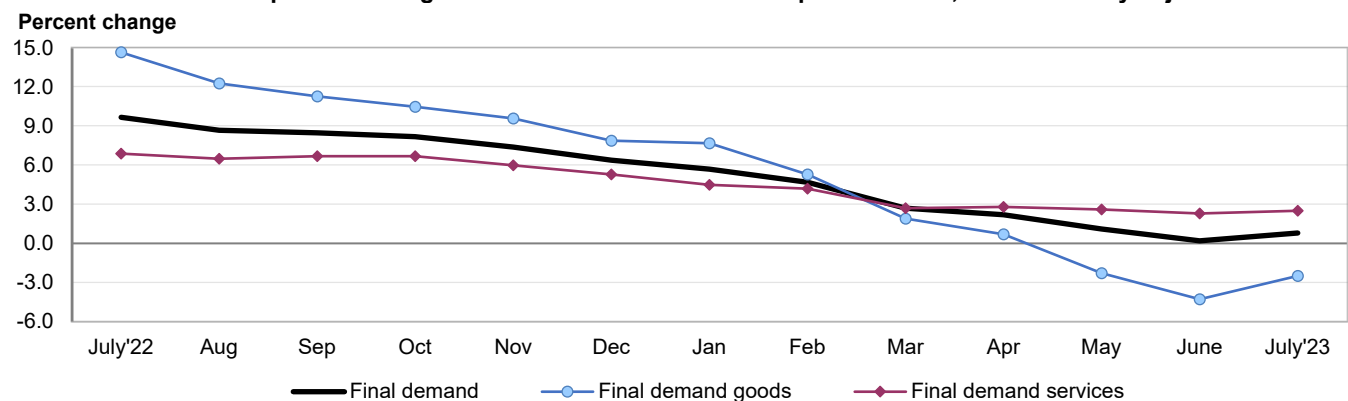
In July, the increase in final demand prices was led by a 0.5-percent rise in the index for final demand services. Prices for final demand goods edged up 0.1 percent.

The index for final demand less foods, energy, and trade services moved up 0.2 percent in July, the largest increase since a 0.3-percent rise in February. For the 12 months ended in July, prices for final demand less foods, energy, and trade services advanced 2.7 percent.

**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 increased 0.5 percent in July, the largest rise since moving up 0.5 percent in August 2022. Leading the broad-based advance in July, prices for final demand services less trade, transportation, and warehousing climbed 0.3 percent. Margins for final demand trade services rose 0.7 percent, and the index for final demand transportation and warehousing services moved up 0.5 percent. (Trade indexes measure changes in margins received by wholesalers and retailers.)

*Product detail:* Forty percent of the July advance in the index for final demand services can be traced to a 7.6-percent rise in prices for portfolio management. The indexes for machinery and vehicle wholesaling; outpatient care (partial); chemicals and allied products wholesaling; securities brokerage, dealing, investment advice, and related services; and transportation of passengers (partial) also moved higher. Conversely, margins for food and alcohol retailing declined 2.5 percent. The indexes for application software publishing and for long-distance motor carrying also fell. (See table 2.)

**Final demand goods:** Prices for final demand goods edged up 0.1 percent in July after no change in June. The July increase is attributable to the index for final demand foods, which rose 0.5 percent. Prices for final demand goods less foods and energy and for final demand energy were both unchanged.

*Product detail:* Within the index for final demand goods in July, prices for meats rose 5.0 percent. The indexes for gas fuels; hay, hayseeds, and oilseeds; utility natural gas; and motor vehicles also moved higher. In contrast, prices for diesel fuel dropped 7.1 percent. The indexes for gasoline, fresh fruits and melons, and plastic resins and materials 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		
<b>2022</b>												
July....	-0.3	0.2	-1.6	1.3	-8.3	0.2	0.3	0.8	-0.3	0.1	9.7	5.8
Aug....	0.0	0.2	-0.8	-0.2	-4.4	0.2	0.5	1.0	-1.1	0.4	8.7	5.6
Sept....	0.3	0.3	0.5	1.5	1.0	0.0	0.2	-0.3	-0.2	0.5	8.5	5.6
Oct....	0.3	0.2	0.4	0.7	1.5	0.0	0.2	0.2	0.0	0.2	8.2	5.5
Nov....	0.4	0.4	0.3	3.3	-2.3	0.3	0.4	0.5	-0.4	0.5	7.4	4.9
Dec....	-0.3	0.2	-1.4	-0.9	-6.3	0.1	0.2	0.3	0.0	0.2	6.4	4.7
<b>2023</b>												
Jan... ..	0.4	0.5	1.3	-1.3	5.4	0.6	0.0	-0.8	-0.5	0.5	5.7	4.4
Feb... ..	0.0	0.3	-0.4	-2.3	-0.8	0.3	0.2	-0.2	-0.8	0.4	4.7	4.5
Mar. <sup>1</sup> ...	-0.4	0.1	-1.1	0.2	-6.1	0.2	-0.1	-0.6	-0.7	0.2	2.7	3.7
Apr. <sup>1</sup> ...	0.2	0.1	0.1	-0.4	0.7	0.1	0.2	0.4	-2.4	0.5	2.2	3.3
May <sup>1</sup> ...	-0.3	0.0	-1.5	-1.0	-6.9	0.1	0.2	0.9	-0.4	0.0	1.1	2.9
June <sup>1</sup> ..	0.0	0.1	0.0	-0.2	0.7	-0.2	-0.1	-0.8	0.0	0.3	0.2	2.7
July....	0.3	0.2	0.1	0.5	0.0	0.0	0.5	0.7	0.5	0.3	0.8	2.7

<sup>1</sup> Some of the figures shown above and elsewhere in this release may differ from those previously reported because data for March 2023 through June 2023 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 fell 0.6 percent, the index for unprocessed goods rose 1.7 percent, and prices for services moved up 0.5 percent. (See tables B and C.)

**Processed goods for intermediate demand:** The index for processed goods for intermediate demand fell 0.6 percent in July, the sixth consecutive decline. Leading the decrease in July, prices for processed materials less foods and energy moved down 0.7 percent. The index for processed energy goods fell 0.9 percent. Conversely, prices for processed foods and feeds advanced 1.4 percent. For the 12 months ended in July, the index for processed goods for intermediate demand dropped 7.8 percent.

*Product detail:* Over 60 percent of the July decline in prices for processed goods for intermediate demand can be traced to a 7.6-percent decrease in the index for steel mill products. Prices for diesel fuel; industrial chemicals; plastic resins and materials; electric power; and natural, processed, and imitation cheese also fell. In contrast, the index for meats rose 5.0 percent. Prices for liquefied petroleum gas and for softwood lumber also advanced.

**Unprocessed goods for intermediate demand:** Prices for unprocessed goods for intermediate demand moved up 1.7 percent in July, the largest advance since jumping 4.8 percent in August 2022. The July increase can be traced to the index for unprocessed energy materials, which rose 8.0 percent. Conversely, prices for unprocessed nonfood materials less energy and for unprocessed foodstuffs and feedstuffs declined 3.1 percent and 0.9 percent, respectively. For the 12 months ended in July, the index for unprocessed goods for intermediate demand dropped 24.9 percent.

*Product detail:* Leading the advance in prices for unprocessed goods for intermediate demand, the index for crude petroleum rose 8.4 percent. Prices for natural gas; hay, hayseeds, and oilseeds; slaughter hogs; slaughter cattle; and carbon steel scrap also moved higher. In contrast, the index for nonferrous metal ores fell 4.5 percent. Prices for corn and for slaughter poultry also decreased.

**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.)
<b>2022</b>										
July.....	-2.1	0.5	-8.0	-0.4	17.2	-8.8	-1.1	-14.2	-5.9	32.5
Aug.....	-1.2	-0.2	-3.7	-0.6	14.3	4.8	-0.9	10.9	0.5	36.9
Sept.....	-0.1	-0.1	2.0	-0.8	12.9	-3.1	1.3	-6.6	-0.6	29.2
Oct.....	-0.2	-0.2	1.5	-0.8	10.1	-9.7	-0.7	-18.1	-4.1	9.3
Nov.....	-0.5	0.8	-1.9	-0.2	7.6	-3.1	0.0	-6.7	-0.7	3.5
Dec.....	-2.5	-0.6	-9.8	-0.4	4.8	1.5	-0.2	5.2	-1.7	10.7
<b>2023</b>										
Jan.....	1.1	0.2	4.9	0.1	3.9	-4.7	-5.8	-7.0	2.1	2.8
Feb.....	-0.4	-2.1	-1.6	0.2	2.1	-4.9	-1.0	-10.9	0.3	-10.4
Mar. <sup>1</sup> ....	-1.0	-0.2	-3.9	-0.2	-1.0	-4.7	-0.7	-11.1	-0.9	-16.8
Apr. <sup>1</sup> ....	-0.5	-1.1	-2.9	0.2	-3.4	1.1	-1.5	3.7	1.8	-20.3
May <sup>1</sup> ....	-1.5	-1.8	-7.0	0.0	-7.1	-5.3	-4.6	-8.0	-2.6	-28.3
June <sup>1</sup> ....	-0.5	-1.1	-0.5	-0.4	-9.3	-1.2	1.0	-3.0	-2.0	-32.3
July.....	-0.6	1.4	-0.9	-0.7	-7.8	1.7	-0.9	8.0	-3.1	-24.9

<sup>1</sup> Some of the figures shown above and elsewhere in this release may differ from those previously reported because data for March 2023 through June 2023 have been revised to reflect the availability of late reports and corrections by respondents.

**Services for intermediate demand:** The index for services for intermediate demand increased 0.5 percent in July after no change in June. Half of the broad-based rise can be traced to margins for trade services for intermediate demand, which moved up 1.3 percent. The indexes for services less trade, transportation, and warehousing for intermediate demand and for transportation and warehousing services for intermediate demand also advanced, climbing 0.3 percent and 0.4 percent, respectively. For the 12 months ended in July, prices for services for intermediate demand rose 4.6 percent, the largest 12-month increase since moving up 6.2 percent in February.

*Product detail:* Within the index for services for intermediate demand in July, margins for chemicals and allied products wholesaling advanced 2.4 percent. The indexes for portfolio management; securities brokerage, dealing, investment advice, and related services; courier, messenger, and U.S. postal services; accounting services (partial); and hardware, building material, and supplies retailing also moved higher. Conversely, prices for business loans (partial) decreased 1.5 percent. The indexes for fuels and lubricants retailing and for arrangement of freight and cargo transportation also fell.

**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	
<b>2022</b>					
July.....	0.3	0.2	1.1	0.1	5.9
Aug.....	0.6	-0.9	-0.3	1.3	6.0
Sept.....	0.5	0.1	-0.4	0.8	6.2
Oct.....	0.4	0.0	0.6	0.5	6.7
Nov.....	0.8	0.9	-1.3	1.2	6.9
Dec.....	0.0	-1.3	0.0	0.4	6.0
<b>2023</b>					
Jan.....	1.0	0.8	0.5	1.1	6.3
Feb.....	0.3	-0.7	0.0	0.7	6.2
Mar. <sup>1</sup> .....	-0.3	0.9	-1.0	-0.5	4.5
Apr. <sup>1</sup> .....	0.7	0.8	-1.1	1.0	4.4
May <sup>1</sup> .....	0.2	-0.1	-0.4	0.4	3.9
June <sup>1</sup> ....	0.0	-0.6	-0.1	0.1	4.3
July.....	0.5	1.3	0.4	0.3	4.6

<sup>1</sup> Some of the figures shown above and elsewhere in this release may differ from those previously reported because data for March 2023 through June 2023 have been revised to reflect the availability of late reports and corrections by respondents.

### **Intermediate Demand by Production Flow**

**Stage 4 intermediate demand:** Prices for stage 4 intermediate demand rose 0.3 percent in July after declining 0.1 percent in June. In July, the index for total services inputs to stage 4 intermediate demand increased 0.8 percent. In contrast, prices for total goods inputs moved down 0.3 percent. (See table D.) Advances in the indexes for portfolio management; securities brokerage, dealing, investment advice, and related services; meats; nonresidential property management fees; machinery and equipment parts and supplies wholesaling; and courier, messenger, and U.S. postal services outweighed falling prices for steel mill products, gross rents for retail properties, and corn. For the 12 months ended in July, the index for stage 4 intermediate demand rose 2.0 percent.

**Stage 3 intermediate demand:** Prices for stage 3 intermediate demand moved down 0.6 percent in July, the sixth consecutive decrease. In July, the index for total goods inputs to stage 3 intermediate demand declined 1.8 percent. Conversely, prices for total services inputs advanced 0.3 percent. Lower prices for steel mill products, corn, slaughter poultry, diesel fuel, plastic resins and materials, and business loans (partial) outweighed increases in the indexes for courier, messenger, and U.S. postal services; slaughter hogs; and slaughter cattle. For the 12 months ended in July, prices for stage 3 intermediate demand fell 6.9 percent.

**Stage 2 intermediate demand:** The index for stage 2 intermediate demand increased 1.4 percent in July, the largest advance since rising 3.0 percent in August 2022. In July, prices for total goods inputs to stage 2 intermediate demand moved up 3.3 percent, while the index for total services inputs was unchanged. Advancing prices for crude petroleum, gas fuels, oilseeds, prepared animal feeds, portfolio management, and accounting services (partial) outweighed decreases in the indexes for business loans (partial), fuels and lubricants retailing, and industrial chemicals. For the 12 months ended in July, prices for stage 2 intermediate demand declined 8.5 percent.

**Stage 1 intermediate demand:** The index for stage 1 intermediate demand was unchanged in July after moving down 0.2 percent in June. In July, a 0.8-percent advance in prices for total services inputs to stage 1 intermediate demand offset a 0.9-percent decrease in the index for total goods inputs. Increases in the indexes for portfolio management; securities brokerage, dealing, investment advice, and related services; hardware, building material, and supplies retailing; courier, messenger, and U.S. postal services; and natural gas to electric utilities offset declines in prices for steel mill products, diesel fuel, corn, gross rents for retail properties, and industrial chemicals. For the 12 months ended in July, prices for stage 1 intermediate demand fell 3.1 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
<b>2022</b>												
July.....	-0.4	-0.8	0.0	-1.2	-2.6	0.4	-4.1	-8.2	0.9	-1.6	-2.8	-0.3
Aug.....	0.3	0.0	0.6	-1.3	-2.6	0.1	3.0	4.8	1.2	-0.4	-1.2	0.5
Sept.....	0.4	0.1	0.7	0.0	-0.1	0.1	-1.9	-4.0	0.3	0.3	0.3	0.2
Oct.....	0.1	-0.1	0.2	-0.1	-0.6	0.5	-4.7	-9.8	0.8	0.1	-0.2	0.4
Nov.....	0.4	-0.2	1.0	-0.4	-1.1	0.3	-1.0	-2.9	0.8	0.1	-0.6	0.9
Dec.....	-0.4	-0.7	0.0	-2.0	-3.8	0.0	1.0	1.5	0.6	-1.8	-3.0	-0.4
<b>2023</b>												
Jan.....	1.0	0.8	1.2	0.2	-0.5	0.9	-0.9	-2.9	0.9	0.7	0.8	0.7
Feb.....	0.0	-0.1	0.2	-0.2	-0.6	0.1	-1.4	-4.6	1.2	-0.3	-0.4	-0.2
Mar. <sup>1</sup> .....	-0.3	-0.5	-0.1	-0.7	-1.1	-0.4	-2.5	-4.9	-0.7	-0.4	-1.0	0.2
Apr. <sup>1</sup> .....	0.3	-0.2	0.7	-0.2	-1.2	0.6	0.9	1.2	0.7	-0.1	-0.7	0.5
May <sup>1</sup> .....	-0.1	-0.5	0.2	-1.4	-2.9	-0.1	-1.3	-4.0	0.6	-0.9	-1.8	-0.1
June <sup>1</sup> ....	-0.1	0.0	-0.1	-0.2	-0.1	-0.2	-1.1	-2.4	-0.2	-0.2	-0.7	0.2
July.....	0.3	-0.3	0.8	-0.6	-1.8	0.3	1.4	3.3	0.0	0.0	-0.9	0.8

<sup>1</sup> Some of the figures shown above and elsewhere in this release may differ from those previously reported because data for March 2023 through June 2023 have been revised to reflect the availability of late reports and corrections by respondents.

**The Producer Price Index for August 2023 is scheduled to be released on Thursday, September 14, 2023, at 8:30 a.m. (ET).**

# 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 2023, the PPI covered 69 percent of services as measured by 2017 Census revenue, and 17 percent of construction.

More than 64,000 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 2022, final demand goods were about 30.7 percent of overall final demand, final demand services were roughly 66.6 percent, and final demand construction was about 2.7 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 [www.bls.gov/ppi/fd-id/ppi-intermediate-demand-by-production-flow-industry-stage-assignments.htm](http://www.bls.gov/ppi/fd-id/ppi-intermediate-demand-by-production-flow-industry-stage-assignments.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 [www.bls.gov/opub/mlr/](http://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). Data provided by survey respondents are supplemented with data from other sources for some areas.

Price data are provided by survey respondents on a voluntary and confidential basis; only sworn BLS employees are allowed access to individual company price reports. BLS publishes price indexes, not actual prices. All PPIs are subject to monthly revisions up to 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 at their date of introduction and the *PPI Detailed Report* issue that announces their introduction

Title	Code	<i>PPI Detailed Report</i> Issue
	<b>SIC</b>	
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



Title	Code	PPI Detailed Report Issue
<b>SIC</b>		
Retail bakeries .....	5461	July 2000
Miscellaneous food stores .....	5499	July 2000
New car dealers .....	5511	July 2000
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
<b>NAICS</b>		
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
Pipeline transportation of natural gas....	486210	June 2022
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

Title	Code	PPI Detailed Report Issue
<b>NAICS</b>		
Construction, mining, and forestry machinery and equipment rental and leasing .....	532412	January 2005
Management consulting services .....	541610	January 2007
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 2017 values of shipments as reported in the *Census of Manufactures* and other sources. From January 2018 to December 2022, PPI weights were derived from 2012 shipment values. Industry indexes now are calculated under the 2022 NAICS structure utilizing 2017 value of shipment weights and 2012 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 [www.bls.gov/opub/hom/homch14.htm](http://www.bls.gov/opub/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: [www.bls.gov/ppi/publications/price-adjustment-guide-for-contracting-parties.htm](http://www.bls.gov/ppi/publications/price-adjustment-guide-for-contracting-parties.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 COVID-19 pandemic. In this case, intervention techniques allowed for better estimates of seasonally adjusted data. On the whole, very few series have required intervention. Out of over 400 seasonally adjusted commodity series, 69 were subject to intervention in 2023.

For more information relating to seasonal adjustment methods, see “PPI and CPI Seasonal Adjustment: an Update” in the July 2010 *Monthly Labor Review*, and “PPI and CPI Seasonal Adjustment During the COVID-19 Pandemic” in the May 2022 *Monthly Labor Review*.

## Producer Price Index Data on the Internet

In 1995, the BLS began posting PPI series, news releases, and technical information to the internet. There were more than 13 million instances of PPI data being downloaded from the BLS website during 2022.

## Retrieving PPI data from the PPI Web site

PPI data can be obtained online ([www.bls.gov/ppi](http://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 [download.bls.gov/](http://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> <a href="http://pub.time.series/pc">/pub/time.series/pc</a>
Industry Data - Discontinued (NAICS basis)	<a href="http://pub.time.series/nd">/pub/time.series/nd</a>
(SIC basis)	<a href="http://pub.time.series/pd">/pub/time.series/pd</a>
Commodity Data (incl. FD-ID)	<a href="http://pub.time.series/wp">/pub/time.series/wp</a>
Commodity Data – Discontinued	<a href="http://pub.time.series/wd">/pub/time.series/wd</a>
Special requests	<a href="http://pub.special.requests/ppi">/pub/special.requests/ppi</a>

### Additional information

The PPI homepage ([www.bls.gov/ppi](http://www.bls.gov/ppi)) contains additional information regarding PPI data and methodology. The “PPI Publications” section of the homepage provides PPI news releases, both current and archived, as well as general PPI information. The “PPI Tables” 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](mailto:ppi-info@bls.gov). If you are deaf, hard of hearing, or have a speech disability, please dial 7-1-1 to access telecommunications relay services.

**Table 1. Producer price index percentage changes and weights for Final Demand-Intermediate Demand groupings, seasonally adjusted [July 2023]**

Grouping	Commodity code		Relative Importance Dec. 2022 <sup>1</sup>	Unadjusted 12-month percent change <sup>2</sup> July 2022 to July 2023 <sup>P</sup>	Seasonally adjusted 1-month percent change <sup>2</sup>				
	Group code	Item code			Feb. to Mar.	Mar. to Apr. <sup>P</sup>	Apr. to May <sup>P</sup>	May to June <sup>P</sup>	June to July <sup>P</sup>
<b>Final Demand</b>									
Final demand.....	FD	4	100.000	0.8	-0.4	0.2	-0.3	0.0	0.3
Final demand goods.....	FD	41	30.653	-2.5	-1.1	0.1	-1.5	0.0	0.1
Final demand foods.....	FD	411	5.940	-0.2	0.2	-0.4	-1.0	-0.2	0.5
Finished consumer foods <sup>3</sup> .....	FD	4111	4.511	0.7	0.7	-0.5	-0.9	0.2	0.2
Finished consumer foods, crude.....	FD	41113	0.606	-14.4	4.0	2.1	-16.3	2.1	-1.8
Finished consumer foods, processed.....	FD	41112	3.905	1.8	0.4	-0.8	0.8	0.0	0.4
Government purchased foods.....	FD	4112	0.406	0.4	0.3	-1.0	0.3	-0.3	1.5
Foods for export.....	FD	4113	1.023	-4.4	-1.9	0.2	-1.7	-1.9	1.6
Final demand energy.....	FD	412	5.853	-16.8	-6.1	0.7	-6.9	0.7	0.0
Finished consumer energy goods <sup>3</sup> .....	FD	4121	4.451	-12.8	-6.6	2.3	-6.7	1.2	0.0
Government purchased energy.....	FD	4122	0.942	-27.4	-4.9	-4.5	-8.1	-0.6	-0.7
Energy for export.....	FD	4123	0.460	-33.0	-2.2	-5.7	-7.7	-1.1	1.0
Final demand goods less foods and energy.....	FD	413	18.859	1.9	0.2	0.1	0.1	-0.2	0.0
Finished goods less foods and energy <sup>3</sup> .....	FD	4131	10.768	4.0	0.3	0.1	0.3	0.1	0.3
Finished consumer goods less foods and energy.....	FD	41311	5.731	3.7	0.3	0.0	0.3	0.0	0.2
Nondurable consumer goods less foods and energy.....	FD	413111	3.441	4.7	0.3	0.1	0.3	0.1	0.3
Durable consumer goods.....	FD	413112	2.290	2.3	0.2	-0.1	0.2	0.0	0.2
Private capital equipment.....	FD	41312	5.037	4.3	0.4	0.1	0.4	0.1	0.3
Private capital equipment for manufacturing industries.....	FD	413121	1.222	5.0	0.5	0.1	0.6	0.2	0.2
Private capital equipment for nonmanufacturing industries.....	FD	413122	3.815	4.0	0.4	0.1	0.3	0.1	0.3
Government purchased goods, excluding foods and energy.....	FD	4132	1.967	0.6	0.0	0.0	-0.1	-0.1	0.1
Government purchased goods excluding foods, energy, and capital equipment.....	FD	41321	1.160	-0.4	-0.2	-0.1	-0.2	-0.3	-0.1
Government purchased capital equipment.....	FD	41322	0.807	2.1	0.3	0.0	0.1	0.1	0.4
Goods for export, excluding foods and energy.....	FD	4133	6.124	-1.2	0.1	0.3	-0.2	-0.5	-0.4
Final demand services.....	FD	42	66.677	2.5	-0.1	0.2	0.2	-0.1	0.5
Final demand trade services <sup>4</sup> .....	FD	423	19.700	1.2	-0.6	0.4	0.9	-0.8	0.7
Trade of finished goods <sup>3</sup> .....	FD	4231	17.049	1.0	-0.7	0.3	0.9	-0.7	0.5
Trade of personal consumption goods.....	FD	42311	13.855	1.6	-0.9	0.3	1.0	-0.1	0.1
Trade of private capital equipment.....	FD	42312	3.194	-1.3	0.3	0.1	0.4	-3.0	2.1
Trade of government purchased goods.....	FD	4232	0.750	2.3	-0.3	1.3	0.5	-1.8	2.3
Trade of government purchased goods, excluding capital equipment.....	FD	42321	0.457	3.4	0.0	1.8	0.4	-0.4	2.0
Trade of government purchased capital equipment.....	FD	42322	0.293	0.6	-0.9	0.5	0.8	-4.1	2.7
Trade of exports.....	FD	4233	1.901	1.9	0.4	0.7	0.5	-2.0	2.0
Final demand transportation and warehousing services.....	FD	422	5.213	-6.0	-0.7	-2.4	-0.4	0.0	0.5
Transportation of passengers for final demand.....	FD	4221	1.275	3.4	1.3	-3.0	-0.8	1.8	1.7
Transportation of private passengers.....	FD	42211	0.860	3.4	1.3	-3.0	-0.8	1.8	1.7
Transportation of government passengers.....	FD	42212	0.103	3.3	1.3	-3.0	-0.8	1.8	1.6
Transportation of passengers for export.....	FD	42213	0.312	3.4	1.3	-3.1	-0.8	1.8	1.7
Transportation and warehousing of goods for final demand.....	FD	4222	3.938	-9.1	-1.4	-2.2	-0.3	-0.6	0.0
Transportation and warehousing of finished goods <sup>3</sup> .....	FD	42221	2.567	-9.8	-1.5	-2.4	-0.3	-0.6	0.0
Transportation and warehousing of personal consumption goods.....	FD	422211	2.063	-9.5	-1.5	-2.4	-0.3	-0.6	0.1
Transportation and warehousing of private capital equipment.....	FD	422212	0.504	-11.0	-1.6	-2.6	-0.4	-0.7	-0.1
Transportation and warehousing of government purchased goods.....	FD	42222	0.233	-7.2	-1.3	-2.0	-0.5	-0.7	0.3
Transportation and warehousing of exports.....	FD	42223	1.138	-7.8	-1.3	-1.9	-0.2	-0.6	0.0
Final demand services less trade, transportation, and warehousing.....	FD	421	41.763	4.2	0.2	0.5	0.0	0.3	0.3
Finished services less trade, transportation, and warehousing <sup>3</sup> .....	FD	4211	36.505	3.8	0.3	0.5	0.0	0.3	0.3
Finished consumer services less trade, transportation, and warehousing.....	FD	42111	32.158	4.0	0.3	0.5	-0.1	0.3	0.4
Private capital investment services less trade, transportation, and warehousing.....	FD	42112	4.347	2.9	0.3	0.1	0.4	0.2	-0.1
Government purchased services less trade, transportation, and warehousing.....	FD	4212	2.674	4.5	0.0	0.6	0.1	0.3	0.6
Gov. purchased services less trade, transportation, and warehousing, excl. capital investment.....	FD	42121	2.515	4.7	0.0	0.7	0.0	0.3	0.7
Government purchased capital investment services less trade, transportation, and warehousing.....	FD	42122	0.159	0.5	0.0	-0.4	0.4	0.3	-0.9
Services for export less trade, transportation, and warehousing.....	FD	4213	2.584	9.3	-0.8	0.8	0.6	0.3	0.5
Final demand construction.....	FD	43	2.670	3.8	0.1	-0.2	0.1	0.0	-1.3
Construction for private capital investment.....	FD	431	1.856	3.7	0.1	-0.1	0.1	0.0	-1.4
Construction for government.....	FD	432	0.814	3.8	0.2	-0.2	0.1	0.0	-1.1
<b>Special Groupings of Final Demand</b>									
Final demand less exports.....	FD	49101	86.458	1.1	-0.4	0.2	-0.3	0.1	0.3
Final demand less government.....	FD	49102	92.111	1.0	-0.4	0.2	-0.3	0.0	0.3

See footnotes at end of table.

**Table 1. Producer price index percentage changes and weights for Final Demand-Intermediate Demand groupings, seasonally adjusted — Continued**  
[July 2023]

Grouping	Commodity code		Relative Importance Dec. 2022 <sup>1</sup>	Unadjusted 12-month percent change <sup>2</sup> July 2022 to July 2023 <sup>P</sup>	Seasonally adjusted 1-month percent change <sup>2</sup>				
	Group code	Item code			Feb. to Mar.	Mar. to Apr. <sup>P</sup>	Apr. to May <sup>P</sup>	May to June <sup>P</sup>	June to July <sup>P</sup>
Final demand less foods, food and nonalcoholic beverages for immediate consumption, and energy <sup>5</sup> .....	FD	49103	87.791	2.4	0.0	0.2	0.2	-0.1	0.3
Final demand less foods and energy <sup>5</sup> .....	FD	49104	88.207	2.4	0.0	0.2	0.2	-0.1	0.3
Final demand less foods and food and nonalcoholic beverages for immediate consumption <sup>5</sup> .....	FD	49105	93.644	0.7	-0.5	0.2	-0.3	-0.1	0.3
Final demand less foods <sup>5</sup> .....	FD	49106	94.060	0.9	-0.4	0.2	-0.3	0.0	0.3
Final demand less energy.....	FD	49107	94.147	2.2	0.0	0.2	0.1	-0.1	0.3
Final demand less trade services.....	FD	49108	80.300	0.7	-0.3	0.1	-0.6	0.2	0.2
Final demand less distributive services <sup>6</sup> .....	FD	49109	76.362	1.2	-0.3	0.3	-0.6	0.2	0.2
Final demand goods less energy.....	FD	49111	24.799	1.4	0.2	0.0	-0.1	-0.2	0.1
Final demand goods less foods.....	FD	49112	24.712	-3.0	-1.4	0.3	-1.6	0.0	0.0
Final demand services less trade services.....	FD	49113	46.976	3.1	0.1	0.2	0.0	0.3	0.4
Final demand distributive services <sup>6</sup> .....	FD	49114	23.638	-0.5	-0.7	-0.1	0.7	-0.8	0.6
Final demand goods plus final demand distributive services <sup>6</sup> .....	FD	49115	54.290	-1.7	-0.9	0.0	-0.6	-0.3	0.3
Final demand less foods, energy, and trade services <sup>5</sup> .....	FD	49116	68.507	2.7	0.1	0.1	0.0	0.1	0.2
Private and government purchased capital equipment.....	FD	49117	5.844	4.0	0.4	0.1	0.3	0.1	0.3
Private and government purchased capital investment services.....	FD	49118	8.497	0.5	0.2	0.0	0.4	-1.2	0.8
Total private and government purchased capital investment.....	FD	49119	14.341	2.1	0.2	0.0	0.3	-0.5	0.3
Total finished <sup>3</sup> .....	FD	49201	78.567	1.4	-0.4	0.3	-0.2	0.1	0.3
Total finished less foods, food and nonalcoholic beverages for immediate consumption, and energy <sup>3, 5</sup> .....	FD	49202	69.193	2.7	0.0	0.2	0.2	0.0	0.3
Total finished less foods and energy <sup>3, 5</sup> .....	FD	49203	69.605	2.7	0.0	0.2	0.2	0.0	0.3
Total finished less foods and food and nonalcoholic beverages for immediate consumption <sup>3, 5</sup> .....	FD	49204	73.644	1.4	-0.4	0.3	-0.2	0.1	0.3
Total finished less foods <sup>3, 5</sup> .....	FD	49205	74.056	1.4	-0.4	0.3	-0.2	0.1	0.3
Total finished less energy <sup>3</sup> .....	FD	49206	74.116	2.6	0.1	0.1	0.2	0.0	0.3
Finished goods <sup>3</sup> .....	FD	49207	19.730	-1.1	-1.3	0.5	-1.6	0.3	0.2
Finished goods less energy <sup>3</sup> .....	FD	49208	15.279	3.0	0.5	-0.1	0.0	0.1	0.2
Finished goods, excluding foods <sup>3, 5</sup> .....	FD	49209	15.219	-1.5	-1.9	0.7	-1.8	0.4	0.2
Finished services <sup>3</sup> .....	FD	49210	56.981	2.4	0.0	0.2	0.2	0.0	0.4
Private capital investment services.....	FD	49211	8.045	0.4	0.2	-0.1	0.4	-1.1	0.8
Finished distributive services <sup>3, 6</sup> .....	FD	49212	19.616	-0.3	-0.8	-0.1	0.8	-0.7	0.4
Finished services less trade services <sup>3</sup> .....	FD	49213	39.932	2.9	0.2	0.2	-0.1	0.3	0.3
Finished services less distributive services <sup>3, 6</sup> .....	FD	49214	37.365	3.8	0.3	0.4	0.0	0.3	0.3
Total private capital investment (goods, services, and construction).....	FD	49215	14.938	2.1	0.3	0.0	0.3	-0.6	0.3
Finished goods plus finished distributive services <sup>3, 6</sup> .....	FD	49216	39.346	-0.8	-1.0	0.2	-0.5	-0.2	0.3
Total exports.....	FD	49301	13.542	-0.9	-0.4	0.0	-0.3	-0.6	0.4
Goods for export.....	FD	49302	7.607	-3.8	-0.3	0.0	-0.8	-0.7	-0.1
Services for export.....	FD	49303	5.935	3.2	-0.4	0.0	0.4	-0.5	1.0
Total government purchases.....	FD	49401	7.889	-2.0	-0.6	-0.4	-0.9	-0.2	0.4
Government purchased goods.....	FD	49402	3.315	-8.1	-1.4	-1.4	-2.2	-0.3	0.1
Government purchased services.....	FD	49403	3.760	3.3	-0.1	0.5	0.1	-0.1	0.9
Total government purchased capital investment (goods, services, construction).....	FD	49404	2.073	2.4	0.1	0.0	0.2	-0.5	0.0
Government purchases, defense.....	FD	49405	2.344	-3.6	-0.5	-1.1	-1.0	-0.2	0.8
Government purchases, non-defense.....	FD	49406	5.545	-1.4	-0.7	0.0	-0.8	-0.2	0.2
Personal consumption.....	FD	49501	63.629	1.2	-0.5	0.3	-0.4	0.2	0.3
Personal consumption goods (finished consumer goods).....	FD	49502	14.693	-2.9	-1.9	0.6	-2.3	0.4	0.1
Personal consumption goods less energy.....	FD	49503	10.242	2.3	0.5	-0.2	-0.2	0.1	0.2
Personal consumption goods less foods.....	FD	49504	10.182	-4.2	-2.9	1.0	-2.9	0.5	0.1
Personal consumption nondurable goods less foods.....	FD	49508	7.892	-5.6	-3.8	1.4	-3.7	0.7	0.1
Personal consumption services.....	FD	49505	48.936	2.7	-0.1	0.3	0.2	0.2	0.3
Personal consumption less trade services.....	FD	49506	49.774	1.1	-0.4	0.3	-0.8	0.3	0.3
Personal consumption less distributive services <sup>6</sup> .....	FD	49507	47.711	1.6	-0.4	0.5	-0.8	0.4	0.3
Personal consumption less foods and energy.....	FD	49510	54.667	2.8	0.0	0.2	0.2	0.1	0.3
Personal consumption less foods, energy, and trade services <sup>4</sup> .....	FD	49511	40.812	3.3	0.2	0.2	-0.1	0.2	0.4
Personal consumption less foods, energy, and distributive services <sup>6</sup> .....	FD	49512	38.749	3.9	0.3	0.3	0.0	0.3	0.4
Personal consumption goods plus personal consumption distributive services <sup>6</sup> .....	FD	49509	30.611	-1.4	-1.4	0.3	-0.7	0.1	0.1
<b>Intermediate Demand by Commodity Type</b>									
<b>Processed goods</b>									
Processed goods for intermediate demand.....	ID6	1	100.000	-7.8	-1.0	-0.5	-1.5	-0.5	-0.6
Materials and components for manufacturing.....	ID6	11	42.908	-6.3	-0.4	0.3	-0.2	-0.7	-1.0
Materials for manufacturing.....	ID6	111	26.996	-10.8	-0.8	0.3	-0.2	-1.0	-1.6
Materials for food manufacturing.....	ID6	1111	4.432	-6.7	0.0	-1.1	-1.9	-1.6	0.8
Materials for nondurable manufacturing.....	ID6	1112	12.302	-12.3	-1.6	-0.2	-1.5	-1.5	-1.2
Materials for durable manufacturing.....	ID6	1113	10.262	-10.4	-0.1	1.4	1.9	-0.3	-3.1
Components for manufacturing.....	ID6	112	15.912	2.2	0.2	0.3	-0.1	0.0	0.0

See footnotes at end of table.

**Table 1. Producer price index percentage changes and weights for Final Demand-Intermediate Demand groupings, seasonally adjusted — Continued**  
[July 2023]

Grouping	Commodity code		Relative Importance Dec. 2022 <sup>1</sup>	Unadjusted 12-month percent change <sup>2</sup> July 2022 to July 2023 <sup>P</sup>	Seasonally adjusted 1-month percent change <sup>2</sup>				
	Group code	Item code			Feb. to Mar.	Mar. to Apr. <sup>P</sup>	Apr. to May <sup>P</sup>	May to June <sup>P</sup>	June to July <sup>P</sup>
Components for nondurable manufacturing.....	ID6	1121	0.793	-1.5	-0.3	0.2	-0.2	-0.6	-0.5
Components for durable manufacturing.....	ID6	1122	15.119	2.4	0.2	0.3	0.0	0.0	0.0
Materials and components for construction.....	ID6	12	10.348	-0.1	0.4	0.1	0.0	-0.1	0.1
Materials for construction.....	ID6	121	4.574	-0.7	0.1	0.1	0.2	0.1	0.3
Components for construction.....	ID6	122	5.774	0.4	0.6	0.1	-0.2	-0.2	0.0
Processed fuels and lubricants for intermediate demand.....	ID6	13	19.830	-21.8	-3.9	-2.9	-7.0	-0.5	-0.9
Processed fuels and lubricants to manufacturing industries.....	ID6	131	5.016	-18.1	-0.7	-4.9	-4.5	0.1	-1.2
Processed fuels and lubricants to nonmanufacturing industries.....	ID6	132	14.814	-23.1	-5.0	-2.3	-7.8	-0.8	-0.8
Containers for intermediate demand.....	ID6	14	3.107	-0.3	-0.8	-0.2	0.3	-0.5	-0.5
Supplies for intermediate demand.....	ID6	15	23.807	-0.4	0.0	-0.3	-0.4	-0.3	0.2
Supplies to manufacturing industries.....	ID6	151	3.173	-0.5	0.1	0.0	-0.1	-0.2	-0.3
Supplies to nonmanufacturing industries.....	ID6	152	20.634	-0.4	-0.1	-0.3	-0.4	-0.3	0.3
Supplies to nonmanufacturing industries, feeds.....	ID6	1521	2.363	-5.1	-1.4	-1.5	-2.9	-0.8	3.1
Supplies to nonmanufacturing industries, other than feeds.....	ID6	1522	18.271	0.2	0.1	-0.1	-0.1	-0.2	0.0
<b>Unprocessed goods</b>									
Unprocessed goods for intermediate demand.....	ID6	2	100.000	-24.9	-4.7	1.1	-5.3	-1.2	1.7
Unprocessed foodstuffs and feedstuffs.....	ID6	21	36.058	-13.3	-0.7	-1.5	-4.6	1.0	-0.9
Unprocessed nonfood materials.....	ID6	22	63.942	-30.6	-7.2	2.8	-5.8	-2.6	3.4
Unprocessed nonfood materials except fuel.....	ID6	221	45.514	-17.3	-4.1	6.5	-6.3	-3.1	2.7
Unprocessed nonfood materials except fuel to manufacturing industries.....	ID6	2211	43.610	-18.4	-4.3	6.8	-6.6	-3.3	2.9
Unprocessed nonfood materials except fuel to nonmanufacturing industries.....	ID6	2212	1.904	8.4	0.1	0.1	0.0	0.7	0.1
Unprocessed fuel.....	ID6	222	18.428	-63.4	-20.0	-15.3	-2.3	0.3	7.3
Unprocessed fuel to manufacturing industries.....	ID6	2221	0.982	-28.9	-7.9	-1.9	-2.8	3.1	2.5
Unprocessed fuel to nonmanufacturing industries.....	ID6	2222	17.446	-65.4	-21.0	-16.6	-2.3	0.0	7.9
<b>Services</b>									
Services for intermediate demand.....	ID6	3	100.000	4.6	-0.3	0.7	0.2	0.0	0.5
Trade services for intermediate demand <sup>4</sup> .....	ID6	33	18.127	1.1	0.9	0.8	-0.1	-0.6	1.3
Trade services for manufacturing industries.....	ID6	331	8.929	1.6	1.8	0.6	-0.4	-1.2	1.1
Trade services for nonmanufacturing industries.....	ID6	332	9.198	0.6	0.0	1.0	0.2	-0.1	1.5
Transportation and warehousing services for intermediate demand.....	ID6	32	14.516	-3.1	-1.0	-1.1	-0.4	-0.1	0.4
Transportation of passengers for intermediate demand.....	ID6	321	1.069	3.3	1.3	-3.0	-0.8	1.8	1.6
Transportation of passengers for manufacturing industries.....	ID6	3211	0.127	3.4	1.3	-3.1	-0.8	1.8	1.7
Transportation of passengers for nonmanufacturing industries.....	ID6	3212	0.942	3.3	1.3	-3.0	-0.8	1.8	1.6
Transportation and warehousing of goods for intermediate demand.....	ID6	322	13.447	-3.6	-1.1	-0.9	-0.4	-0.2	0.3
Transportation and warehousing of goods for manufacturing industries.....	ID6	3221	2.941	-6.7	-1.2	-1.7	-0.1	-0.7	-0.2
Transportation and warehousing of goods for nonmanufacturing industries.....	ID6	3222	10.506	-2.7	-1.1	-0.7	-0.5	-0.1	0.5
Services less trade, transportation, and warehousing for intermediate demand.....	ID6	31	67.357	7.5	-0.5	1.0	0.4	0.1	0.3
Services less trade, transportation, and warehousing for manufacturing industries.....	ID6	311	2.068	4.0	0.2	0.5	0.1	-0.1	0.3
Services less trade, transportation, and warehousing for nonmanufacturing industries.....	ID6	312	65.288	7.7	-0.5	1.0	0.5	0.1	0.3
<b>Construction</b>									
Construction for intermediate demand.....	ID6	4	100.000	4.4	0.4	0.1	1.4	0.1	0.3
<b>Special Groupings of Intermediate Demand by Commodity Type</b>									
Processed materials less foods and feeds.....	ID6	9111	90.968	-8.0	-1.1	-0.5	-1.5	-0.4	-0.7
Processed foods and feeds.....	ID6	9112	9.032	-5.1	-0.2	-1.1	-1.8	-1.1	1.4
Processed energy goods.....	ID6	9113	19.830	-21.8	-3.9	-2.9	-7.0	-0.5	-0.9
Processed materials less energy.....	ID6	9118	80.170	-3.7	-0.2	0.1	-0.2	-0.5	-0.5
Processed materials less foods and energy.....	ID6	9115	71.138	-3.5	-0.2	0.2	0.0	-0.4	-0.7
Intermediate distributive services <sup>7</sup> .....	ID6	9116	31.574	-0.9	0.0	0.1	-0.2	-0.5	0.9
Processed goods plus intermediate distributive services.....	ID6	9117	-	-5.8	-0.7	-0.3	-1.1	-0.5	-0.1
Unprocessed materials less agricultural products.....	ID6	9211	58.389	-31.0	-7.2	2.9	-5.8	-3.1	4.9
Unprocessed energy materials <sup>8</sup> .....	ID6	9212	43.623	-38.8	-11.1	3.7	-8.0	-3.0	8.0
Unprocessed materials less energy.....	ID6	9213	56.377	-12.2	-0.7	-0.3	-3.8	-0.2	-1.8
Unprocessed nonfood materials less energy <sup>9</sup> .....	ID6	9216	20.319	-10.5	-0.9	1.8	-2.6	-2.0	-3.1
<b>Intermediate Demand by Production Flow</b>									
<b>Stage 4 Intermediate Demand</b>									
Stage 4 intermediate demand.....	ID5	4	100.000	2.0	-0.3	0.3	-0.1	-0.1	0.3
Inputs to stage 4 goods producers.....	ID5	41	30.237	-0.6	0.3	-0.1	0.0	-0.4	-0.2
Goods.....	ID5	411	22.423	-1.5	-0.3	-0.1	-0.2	-0.1	-0.5

See footnotes at end of table.



**Table 1. Producer price index percentage changes and weights for Final Demand-Intermediate Demand groupings, seasonally adjusted — Continued**  
 [July 2023]

Grouping	Commodity code		Relative Importance Dec. 2022 <sup>1</sup>	Unadjusted 12-month percent change <sup>2</sup> July 2022 to July 2023 <sup>P</sup>	Seasonally adjusted 1-month percent change <sup>2</sup>				
	Group code	Item code			Feb. to Mar.	Mar. to Apr. <sup>P</sup>	Apr. to May <sup>P</sup>	May to June <sup>P</sup>	June to July <sup>P</sup>
Foods.....	ID5	4111	3.300	-7.0	-2.1	-0.3	-2.1	-0.4	-1.3
Energy.....	ID5	4112	0.220	-17.4	6.3	-14.4	-10.4	4.1	0.7
Goods excluding foods and energy.....	ID5	4113	18.903	-0.4	0.0	0.2	0.3	-0.1	-0.4
Services.....	ID5	412	7.814	2.0	2.0	-0.1	0.5	-1.2	0.7
Trade services.....	ID5	4123	5.817	2.1	2.8	-0.2	0.7	-1.6	0.9
Transportation and warehousing services.....	ID5	4122	0.515	-4.8	-0.6	-1.5	-0.6	-0.2	0.3
Transportation of passengers.....	ID5	41221	0.077	3.4	1.3	-3.1	-0.8	1.8	1.7
Transportation and warehousing of goods.....	ID5	41222	0.438	-6.2	-1.0	-1.2	-0.6	-0.5	0.1
Services less trade, transportation, and warehousing.....	ID5	4121	1.482	4.3	-0.1	0.7	0.1	0.2	0.4
Inputs to stage 4 services producers.....	ID5	42	54.970	4.8	-0.6	0.5	0.1	0.1	0.6
Goods.....	ID5	421	13.984	-1.3	-0.8	-0.7	-0.7	0.1	0.0
Foods.....	ID5	4211	2.360	-4.8	0.1	-1.4	-0.5	-0.3	1.3
Energy.....	ID5	4212	4.133	-5.1	-2.8	-1.4	-2.0	0.4	-0.8
Goods excluding foods and energy.....	ID5	4213	7.491	1.8	0.1	-0.1	-0.1	0.0	0.0
Services.....	ID5	422	40.934	7.2	-0.5	0.9	0.3	0.1	0.8
Trade services.....	ID5	4223	4.078	2.8	0.5	0.7	0.6	-0.7	1.3
Transportation and warehousing services.....	ID5	4222	3.742	1.1	-0.4	-0.8	-1.1	0.0	1.4
Transportation of passengers.....	ID5	42221	0.490	3.4	1.3	-3.0	-0.8	1.8	1.7
Transportation and warehousing of goods.....	ID5	42222	3.252	0.8	-0.7	-0.4	-1.1	-0.3	1.3
Services less trade, transportation, and warehousing.....	ID5	4221	33.114	8.6	-0.6	1.1	0.5	0.2	0.7
Construction.....	ID5	423	0.052	4.4	0.4	0.1	1.4	0.1	0.3
Inputs to stage 4 construction producers.....	ID5	43	14.792	-2.3	-0.2	0.3	-1.0	0.1	0.1
Goods.....	ID5	431	10.801	-2.4	-0.4	0.3	-1.0	0.1	-0.1
Energy.....	ID5	4312	0.855	-28.8	-7.7	2.9	-12.0	1.4	-2.1
Goods excluding foods and energy.....	ID5	4313	9.946	0.8	0.3	0.1	0.1	0.0	0.1
Services.....	ID5	432	3.991	-2.1	0.4	0.1	-1.1	0.0	0.8
Trade services.....	ID5	4323	1.692	-2.9	1.4	0.6	-2.5	0.2	1.5
Transportation and warehousing services.....	ID5	4322	0.725	-10.2	-1.4	-2.4	-0.6	-0.6	-0.1
Transportation of passengers.....	ID5	43221	0.015	3.4	1.3	-3.1	-0.8	1.8	1.7
Transportation and warehousing of goods.....	ID5	43222	0.710	-10.5	-1.4	-2.4	-0.6	-0.7	-0.1
Services less trade, transportation, and warehousing.....	ID5	4321	1.574	3.7	0.1	0.7	0.2	0.1	0.3
<b>Stage 3 Intermediate Demand</b>									
Stage 3 intermediate demand.....	ID5	3	100.000	-6.9	-0.7	-0.2	-1.4	-0.2	-0.6
Inputs to stage 3 goods producers.....	ID5	31	45.352	-10.8	-0.1	-0.5	-1.8	-0.1	-1.4
Goods.....	ID5	311	35.807	-12.9	-0.3	-0.6	-1.9	0.0	-2.0
Foods.....	ID5	3111	11.906	-17.6	-0.2	-2.2	-5.6	1.4	-2.2
Energy.....	ID5	3112	1.292	-32.9	2.5	-7.0	-7.1	0.5	-2.0
Goods excluding foods and energy.....	ID5	3113	22.609	-8.9	-0.6	0.6	0.2	-0.6	-1.9
Services.....	ID5	312	9.545	-2.2	0.6	0.1	-1.3	-0.7	0.4
Trade services.....	ID5	3123	5.175	-0.3	1.7	1.0	-2.2	-0.9	0.7
Transportation and warehousing services.....	ID5	3122	3.002	-8.0	-1.3	-2.1	-0.2	-0.5	0.0
Transportation of passengers.....	ID5	31221	0.144	3.4	1.3	-3.1	-0.8	1.8	1.7
Transportation and warehousing of goods.....	ID5	31222	2.858	-8.6	-1.5	-2.0	-0.2	-0.7	-0.1
Services less trade, transportation, and warehousing.....	ID5	3121	1.368	4.4	0.1	0.7	0.3	0.1	0.3
Inputs to stage 3 services producers.....	ID5	32	53.518	-3.2	-1.2	0.0	-1.1	-0.2	0.0
Goods.....	ID5	321	10.628	-23.6	-3.5	-3.2	-6.7	-0.8	-1.2
Foods.....	ID5	3211	0.090	-0.4	-1.0	-2.6	0.4	-1.4	0.0
Energy.....	ID5	3212	6.619	-34.5	-5.4	-5.1	-10.7	-1.2	-2.0
Goods excluding foods and energy.....	ID5	3213	3.919	-0.3	-0.3	-0.1	-0.3	-0.2	-0.1
Services.....	ID5	322	42.317	3.6	-0.6	0.8	0.2	-0.1	0.3
Trade services.....	ID5	3223	2.614	3.2	-0.9	2.3	-0.8	0.4	2.1
Transportation and warehousing services.....	ID5	3222	10.018	-2.0	-1.2	-0.4	-0.4	0.2	0.4
Transportation of passengers.....	ID5	32221	0.021	0.2	0.2	-0.3	0.0	-0.1	0.2
Transportation and warehousing of goods.....	ID5	32222	9.997	-2.0	-1.2	-0.4	-0.4	0.2	0.4
Services less trade, transportation, and warehousing.....	ID5	3221	29.685	5.5	-0.5	1.1	0.5	-0.2	0.1
Construction.....	ID5	323	0.573	4.4	0.4	0.1	1.4	0.1	0.3
Inputs to stage 3 construction producers.....	ID5	33	1.131	-4.4	-0.1	-0.6	-0.4	0.9	1.2
Goods.....	ID5	331	0.566	-3.2	-0.4	-0.2	-0.1	0.1	0.1
Goods excluding foods and energy.....	ID5	3313	0.566	-3.2	-0.4	-0.2	-0.1	0.1	0.1
Services.....	ID5	332	0.565	-4.8	0.2	-1.0	-0.6	1.8	2.3
Trade services.....	ID5	3323	0.521	-5.2	0.3	-1.1	-0.7	1.9	2.5
Transportation and warehousing services.....	ID5	3322	0.015	-1.7	-1.4	-0.1	0.4	-0.8	0.2
Transportation and warehousing of goods.....	ID5	33222	0.015	-1.7	-1.4	-0.1	0.4	-0.8	0.2
Services less trade, transportation, and warehousing.....	ID5	3321	0.029	4.9	-0.1	0.4	0.3	-0.2	0.5
<b>Stage 2 Intermediate Demand</b>									

See footnotes at end of table.



**Table 1. Producer price index percentage changes and weights for Final Demand-Intermediate Demand groupings, seasonally adjusted — Continued**  
[July 2023]

Grouping	Commodity code		Relative Importance Dec. 2022 <sup>1</sup>	Unadjusted 12-month percent change <sup>2</sup>	Seasonally adjusted 1-month percent change <sup>2</sup>				
	Group code	Item code			July 2022 to July 2023 <sup>P</sup>	Feb. to Mar.	Mar. to Apr. <sup>P</sup>	Apr. to May <sup>P</sup>	May to June <sup>P</sup>
Stage 2 intermediate demand.....	ID5	2	100.000	-8.5	-2.5	0.9	-1.3	-1.1	1.4
Inputs to stage 2 goods producers.....	ID5	21	54.274	-18.9	-4.1	1.3	-3.0	-2.1	2.8
Goods.....	ID5	211	40.812	-24.9	-5.5	1.5	-4.5	-2.6	3.8
Foods.....	ID5	2111	4.355	-5.9	-3.0	-0.4	-2.5	-3.2	4.5
Energy.....	ID5	2112	21.042	-39.2	-11.0	3.2	-8.5	-3.3	8.7
Goods excluding foods and energy.....	ID5	2113	15.415	-7.8	0.0	0.2	-0.8	-1.8	-1.1
Services.....	ID5	212	13.197	3.6	-0.3	0.8	0.7	-0.9	0.4
Trade services.....	ID5	2123	5.150	2.7	0.1	2.1	1.2	-1.4	1.2
Transportation and warehousing services.....	ID5	2122	4.488	-0.5	-0.6	-0.8	0.2	-0.7	-0.3
Transportation of passengers.....	ID5	21221	0.168	3.3	1.3	-2.9	-0.7	1.7	1.6
Transportation and warehousing of goods.....	ID5	21222	4.320	-0.6	-0.6	-0.7	0.3	-0.8	-0.4
Services less trade, transportation, and warehousing.....	ID5	2121	3.559	10.6	-0.7	1.0	0.6	-0.2	0.0
Construction.....	ID5	213	0.265	4.4	0.4	0.1	1.4	0.1	0.3
Inputs to stage 2 services producers.....	ID5	22	45.725	5.6	-0.8	0.6	0.4	-0.1	-0.1
Goods.....	ID5	221	5.072	-3.3	-0.6	-0.3	-1.0	-0.3	-0.1
Foods.....	ID5	2211	0.055	-15.1	-2.8	-0.8	-2.9	-1.9	-0.3
Energy.....	ID5	2212	0.357	-28.8	-6.8	-2.8	-11.9	-1.2	-0.2
Goods excluding foods and energy.....	ID5	2213	4.660	-0.9	0.0	-0.1	-0.2	-0.2	-0.1
Services.....	ID5	222	39.767	7.0	-0.9	0.7	0.6	0.0	-0.1
Trade services.....	ID5	2223	2.238	0.4	-3.4	0.6	3.6	-0.9	-0.9
Transportation and warehousing services.....	ID5	2222	2.862	-12.1	-2.3	-1.8	-0.7	1.3	-0.7
Transportation of passengers.....	ID5	22221	0.390	3.4	1.3	-3.0	-0.8	1.8	1.7
Transportation and warehousing of goods.....	ID5	22222	2.472	-14.4	-2.9	-1.5	-0.7	1.2	-1.1
Services less trade, transportation, and warehousing.....	ID5	2221	34.667	9.2	-0.6	0.9	0.5	-0.1	0.0
Construction.....	ID5	223	0.886	4.4	0.4	0.1	1.4	0.1	0.3
<b>Stage 1 Intermediate Demand</b>									
Stage 1 intermediate demand.....	ID5	1	100.000	-3.1	-0.4	-0.1	-0.9	-0.2	0.0
Inputs to stage 1 goods producers.....	ID5	11	33.533	-8.1	-0.7	-0.4	-1.4	-0.7	-0.6
Goods.....	ID5	111	24.780	-11.3	-1.2	-0.8	-1.5	-0.8	-1.3
Foods.....	ID5	1111	3.351	-12.9	-4.4	-0.8	-3.1	-0.4	-2.6
Energy.....	ID5	1112	3.963	-19.3	-0.8	-7.3	-7.5	0.0	0.8
Goods excluding foods and energy.....	ID5	1113	17.466	-9.3	-0.7	0.6	0.0	-1.1	-1.4
Services.....	ID5	112	8.752	1.1	0.6	0.7	-1.1	-0.4	1.1
Trade services.....	ID5	1123	5.298	-0.3	1.2	1.0	-1.9	-0.8	1.2
Transportation and warehousing services.....	ID5	1122	0.599	-0.4	-2.3	-0.6	2.0	-0.9	0.7
Transportation of passengers.....	ID5	11221	0.103	3.4	1.3	-3.1	-0.8	1.8	1.7
Transportation and warehousing of goods.....	ID5	11222	0.496	-1.3	-3.0	0.0	2.6	-1.5	0.5
Services less trade, transportation, and warehousing.....	ID5	1121	2.855	4.7	0.0	0.5	-0.3	0.3	1.0
Construction.....	ID5	113	0.001	4.4	0.4	0.1	1.4	0.1	0.3
Inputs to stage 1 services producers.....	ID5	12	53.646	0.8	-0.3	0.2	-0.6	0.1	0.3
Goods.....	ID5	121	16.434	-8.3	-1.2	-0.7	-2.5	-0.6	-0.8
Foods.....	ID5	1211	0.115	-32.5	6.2	3.0	-26.6	-12.8	-0.1
Energy.....	ID5	1212	5.528	-24.9	-3.6	-2.6	-7.0	-1.5	-2.5
Goods excluding foods and energy.....	ID5	1213	10.791	2.7	0.0	0.3	0.0	-0.1	0.0
Services.....	ID5	122	37.209	5.7	0.0	0.5	0.2	0.4	0.7
Trade services.....	ID5	1223	3.617	2.5	0.4	0.8	0.2	-0.1	1.3
Transportation and warehousing services.....	ID5	1222	4.373	0.7	-0.2	-1.5	-0.4	0.4	1.4
Transportation of passengers.....	ID5	12221	1.342	3.4	1.3	-3.1	-0.8	1.8	1.7
Transportation and warehousing of goods.....	ID5	12222	3.031	-0.6	-0.9	-0.8	-0.2	-0.3	1.3
Services less trade, transportation, and warehousing.....	ID5	1221	29.219	6.9	0.0	0.8	0.3	0.4	0.5
Construction.....	ID5	123	0.003	4.4	0.4	0.1	1.4	0.1	0.3
Inputs to stage 1 construction producers.....	ID5	13	12.821	-5.0	0.0	-0.6	-1.1	0.0	0.2
Goods.....	ID5	131	9.208	-4.4	-0.1	-0.4	-1.2	-0.3	-0.4
Energy.....	ID5	1312	0.934	-41.5	-3.8	-5.6	-13.0	-3.4	-5.4
Goods excluding foods and energy.....	ID5	1313	8.274	1.2	0.3	0.1	0.0	0.0	0.0
Services.....	ID5	132	3.613	-6.1	0.3	-1.0	-1.0	0.9	1.7
Trade services.....	ID5	1323	2.667	-4.1	0.9	-0.5	-1.2	1.4	2.2
Transportation and warehousing services.....	ID5	1322	0.854	-11.9	-1.7	-2.8	-0.3	-0.7	-0.1
Transportation and warehousing of goods.....	ID5	13222	0.854	-11.9	-1.7	-2.8	-0.3	-0.7	-0.1
Services less trade, transportation, and warehousing.....	ID5	1321	0.092	7.2	0.5	1.0	-0.1	0.0	0.6
<b>Special Groupings of Intermediate Demand by Production Flow</b>									
Total goods inputs to stage 4 intermediate demand.....	ID5	9411	47.208	-1.6	-0.5	-0.2	-0.5	0.0	-0.3
Total services inputs to stage 4 intermediate demand.....	ID5	9412	52.739	5.5	-0.1	0.7	0.2	-0.1	0.8
Total construction inputs to stage 4 intermediate demand.....	ID5	9413	0.052	4.4	0.4	0.1	1.4	0.1	0.3
Total foods inputs to stage 4 intermediate demand.....	ID5	9414	5.660	-6.0	-1.2	-0.7	-1.4	-0.4	-0.2

See footnotes at end of table.

**Table 1. Producer price index percentage changes and weights for Final Demand-Intermediate Demand groupings, seasonally adjusted — Continued**  
[July 2023]

Grouping	Commodity code		Relative Importance Dec. 2022 <sup>1</sup>	Unadjusted 12-month percent change <sup>2</sup> July 2022 to July 2023 <sup>p</sup>	Seasonally adjusted 1-month percent change <sup>2</sup>				
	Group code	Item code			Feb. to Mar.	Mar. to Apr. <sup>p</sup>	Apr. to May <sup>p</sup>	May to June <sup>p</sup>	June to July <sup>p</sup>
Total energy goods inputs to stage 4 intermediate demand.....	ID5	9415	5.208	-10.5	-3.4	-1.2	-4.1	0.7	-0.9
Total goods less foods and energy inputs to stage 4 intermediate demand. ....	ID5	9416	36.340	0.4	0.1	0.1	0.1	-0.1	-0.2
Total goods inputs to stage 3 intermediate demand.....	ID5	9311	47.001	-15.4	-1.1	-1.2	-2.9	-0.1	-1.8
Total services inputs to stage 3 intermediate demand.....	ID5	9312	52.427	2.2	-0.4	0.6	-0.1	-0.2	0.3
Total construction inputs to stage 3 intermediate demand.....	ID5	9313	0.573	4.4	0.4	0.1	1.4	0.1	0.3
Total foods inputs to stage 3 intermediate demand.....	ID5	9314	11.996	-17.5	-0.2	-2.2	-5.5	1.4	-2.2
Total energy goods inputs to stage 3 intermediate demand.....	ID5	9315	7.911	-34.3	-4.1	-5.4	-10.1	-0.9	-2.0
Total goods less foods and energy inputs to stage 3 intermediate demand. ....	ID5	9316	27.094	-7.7	-0.5	0.5	0.1	-0.5	-1.6
Total goods inputs to stage 2 intermediate demand.....	ID5	9211	45.884	-22.7	-4.9	1.2	-4.0	-2.4	3.3
Total services inputs to stage 2 intermediate demand.....	ID5	9212	52.964	6.2	-0.7	0.7	0.6	-0.2	0.0
Total construction inputs to stage 2 intermediate demand.....	ID5	9213	1.151	4.4	0.4	0.1	1.4	0.1	0.3
Total foods inputs to stage 2 intermediate demand.....	ID5	9214	4.410	-6.0	-2.9	-0.4	-2.5	-3.2	4.4
Total energy goods inputs to stage 2 intermediate demand.....	ID5	9215	21.399	-39.0	-10.9	3.0	-8.6	-3.3	8.5
Total goods less foods and energy inputs to stage 2 intermediate demand. ....	ID5	9216	20.075	-6.3	0.0	0.2	-0.6	-1.5	-0.9
Total goods inputs to stage 1 intermediate demand.....	ID5	9111	50.422	-9.1	-1.0	-0.7	-1.8	-0.7	-0.9
Total services inputs to stage 1 intermediate demand.....	ID5	9112	49.574	3.7	0.2	0.5	-0.1	0.2	0.8
Total construction inputs to stage 1 intermediate demand.....	ID5	9117	0.004	4.4	0.4	0.1	1.4	0.1	0.3
Total foods inputs to stage 1 intermediate demand.....	ID5	9114	3.466	-13.5	-4.1	-0.7	-3.9	-0.7	-2.5
Total energy goods inputs to stage 1 intermediate demand.....	ID5	9115	10.425	-24.9	-2.6	-4.6	-7.7	-1.1	-1.5
Total goods less foods and energy inputs to stage 1 intermediate demand. ....	ID5	9116	36.531	-3.5	-0.2	0.4	0.0	-0.5	-0.7

<sup>1</sup> 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.

<sup>2</sup> All indexes are subject to revision for 4 months after their originally scheduled publication to incorporate late reports and corrections by survey respondents. In addition, seasonally adjusted indexes are subject to change for up to 5 years due to the recalculation of seasonal factors published each January.

<sup>3</sup> PPI defines Total finished as including only the personal consumption and private capital investment portions of final demand.

<sup>4</sup> Trade indexes measure changes in margins received by wholesalers and retailers.

<sup>5</sup> 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.

<sup>6</sup> Distributive services include transportation, warehousing, and trade of goods.

<sup>7</sup> Includes intermediate trade, transportation, and warehousing services.

<sup>8</sup> Includes crude petroleum.

<sup>9</sup> Excludes crude petroleum.

<sup>p</sup> Preliminary

"/" Data not available.

**Table 2. Producer price index percentage changes for selected commodity groupings by Final Demand-Intermediate Demand category, seasonally adjusted**  
[July 2023]

Grouping	Commodity code		Unadjusted 12-month percent change <sup>1</sup>	Seasonally adjusted 1-month percent change <sup>1</sup>				
	Group code	Item code		July 2022 to July 2023 <sup>P</sup>	Feb. to Mar.	Mar. to Apr. <sup>P</sup>	Apr. to May <sup>P</sup>	May to June <sup>P</sup>
<b>Final Demand</b>								
Final demand.....	FD	4	0.8	-0.4	0.2	-0.3	0.0	0.3
Final demand goods.....	FD	41	-2.5	-1.1	0.1	-1.5	0.0	0.1
Final demand foods.....	FD	411	-0.2	0.2	-0.4	-1.0	-0.2	0.5
Fresh fruits and melons <sup>2</sup> .....	01	11	-7.8	-3.2	2.4	-2.5	2.1	-10.2
Fresh and dry vegetables <sup>2</sup> .....	01	13	11.9	-7.5	35.1	-15.8	-0.8	3.5
Grains.....	01	2	-19.1	-7.4	2.7	-5.5	1.9	-8.7
Eggs for fresh use <sup>2</sup> .....	01	7107	-56.7	33.2	-35.8	-53.4	33.8	0.3
Oilseeds.....	01	8301	-3.7	-4.2	0.5	-1.2	-6.9	9.0
Bakery products <sup>2</sup> .....	02	11	6.9	0.5	0.1	0.3	0.5	0.5
Milled rice <sup>2</sup> .....	02	13	11.4	0.4	-0.3	-0.8	-0.1	-0.2
Pasta products <sup>2</sup> .....	02	1402	1.6	0.0	-8.4	0.0	0.0	-2.0
Beef and veal.....	02	2101	19.2	1.4	-3.1	7.7	2.1	4.8
Pork.....	02	2104	-3.6	3.2	-6.5	-3.9	-0.7	6.8
Processed young chickens.....	02	2203	-20.8	2.2	-1.3	-0.6	-0.5	0.4
Processed turkeys <sup>2</sup> .....	02	2206	-32.3	-10.7	-6.8	-8.9	-7.4	-3.0
Finfish and shellfish.....	02	23	0.5	0.6	-1.4	1.3	-1.9	0.9
Dairy products.....	02	3	-12.7	-1.7	-0.2	-1.3	-2.1	-1.5
Processed fruits and vegetables <sup>2</sup> .....	02	4	12.5	0.7	0.2	1.3	0.9	0.1
Confectionery end products <sup>2</sup> .....	02	55	4.7	0.2	0.3	0.3	1.5	1.0
Soft drinks <sup>2</sup> .....	02	62	12.6	0.0	-0.9	3.2	0.7	-2.4
Roasted coffee <sup>2</sup> .....	02	6301	7.9	-0.4	0.3	0.2	-0.1	0.0
Shortening and cooking oils <sup>2</sup> .....	02	78	-13.4	-1.6	-1.4	-2.4	-1.8	3.2
Frozen specialty food <sup>2</sup> .....	02	85	7.0	1.0	0.2	1.2	0.0	0.0
Final demand energy.....	FD	412	-16.8	-6.1	0.7	-6.9	0.7	0.0
Liquefied petroleum gas <sup>2</sup> .....	05	32	-48.6	-11.4	-3.1	-17.2	-8.3	24.6
Residential electric power.....	05	41	6.3	-1.1	-0.1	0.4	0.9	-0.5
Residential natural gas.....	05	51	-10.0	-7.4	-4.7	-1.3	-0.7	1.8
Gasoline.....	05	71	-24.5	-11.6	8.1	-13.6	3.2	-1.1
Home heating oil and distillates.....	05	7302	-32.8	-4.1	-7.8	-12.3	1.3	13.3
No. 2 diesel fuel.....	05	7303	-45.2	-6.3	-3.6	-13.6	-5.4	-7.1
Final demand goods less foods and energy.....	FD	413	1.9	0.2	0.1	0.1	-0.2	0.0
Alcoholic beverages.....	02	61	3.9	0.0	0.1	0.3	0.0	0.2
Pet food <sup>2</sup> .....	02	9402	8.7	5.7	0.0	0.0	0.0	0.0
Women's, girls', and infants' apparel <sup>2</sup> .....	03	8106	-1.2	0.0	0.0	0.1	0.1	0.1
Men's and boys' apparel <sup>2</sup> .....	03	8107	4.5	0.1	0.0	2.3	0.0	-0.5
Textile housefurnishings <sup>2</sup> .....	03	82	2.0	0.2	-0.1	0.0	0.1	0.3
Footwear.....	04	3	7.0	-0.6	0.5	0.0	0.4	0.1
Industrial chemicals.....	06	1	-17.4	-2.8	-0.5	-2.0	-1.7	-1.8
Pharmaceutical preparations.....	06	38	2.4	0.0	0.3	0.0	0.1	0.2
Soaps and detergents <sup>2</sup> .....	06	71	11.9	0.1	0.1	0.0	-0.1	0.1
Cleaning and polishing products <sup>2</sup> .....	06	72	4.3	0.2	0.3	0.1	0.1	0.0
Cosmetics and other toiletries <sup>2</sup> .....	06	75	6.0	0.6	0.2	0.5	0.4	0.0
Tires <sup>2</sup> .....	07	1201	6.2	0.0	0.3	-0.2	-0.3	0.0
Consumer, institutional, and commercial products, n.e.c. <sup>2</sup> .....	07	2B	0.3	-0.3	0.1	-0.1	0.0	0.1
Sanitary paper products <sup>2</sup> .....	09	1501	7.2	0.1	0.0	0.4	0.4	0.0
Iron and steel scrap.....	10	12	-12.5	3.1	5.6	-6.2	-10.7	2.0
Agricultural machinery and equipment.....	11	1	4.5	0.3	0.4	0.3	-0.2	0.5
Construction machinery and equipment <sup>2</sup> .....	11	2	9.3	0.3	0.3	0.1	0.0	1.6
Metal cutting machine tools <sup>2</sup> .....	11	37	4.4	0.1	0.0	0.5	0.0	0.5
Metal forming machine tools.....	11	38	5.5	0.1	0.1	1.8	0.2	0.3
Tools, dies, jigs, fixtures, and industrial molds <sup>2</sup> .....	11	39	5.9	2.0	0.2	0.1	0.7	0.1
Pumps, compressors, and equipment.....	11	41	8.0	0.4	-0.1	0.9	0.4	0.5
Industrial material handling equipment <sup>2</sup> .....	11	44	5.6	0.0	0.0	0.5	0.3	0.1
Electronic computers and computer equipment <sup>2</sup> .....	11	5	-1.1	-0.1	-0.8	-0.5	-1.6	-0.2
Textile machinery and equipment <sup>2</sup> .....	11	62	-0.1	0.0	0.0	0.0	0.0	0.0
Paper industries machinery <sup>2</sup> .....	11	64	8.2	0.4	0.1	0.5	1.8	0.0
Printing trades machinery and equipment <sup>2</sup> .....	11	65	1.8	0.2	0.3	0.2	-0.3	0.1
Transformers and power regulators <sup>2</sup> .....	11	74	3.0	0.6	0.3	0.3	0.8	2.5
Communication and related equipment.....	11	76	2.3	0.3	0.4	0.0	0.5	0.1
Electronic components and accessories.....	11	78	0.5	0.0	-0.4	-1.1	0.3	0.6
X-ray and electromedical equipment <sup>2</sup> .....	11	7905	2.8	0.0	0.0	0.1	0.0	1.2
Oil field and gas field machinery <sup>2</sup> .....	11	91	6.9	0.3	0.3	0.0	0.0	0.0
Mining machinery and equipment <sup>2</sup> .....	11	92	10.3	0.0	4.1	0.3	0.0	0.4
Internal combustion engines <sup>2</sup> .....	11	94	6.5	0.0	0.3	0.0	0.1	0.6

See footnotes at end of table.

**Table 2. Producer price index percentage changes for selected commodity groupings by Final Demand-Intermediate Demand category, seasonally adjusted — Continued**  
 [July 2023]

Grouping	Commodity code		Unadjusted 12-month percent change <sup>1</sup>	Seasonally adjusted 1-month percent change <sup>1</sup>				
	Group code	Item code		July 2022 to July 2023 <sup>P</sup>	Feb. to Mar.	Mar. to Apr. <sup>P</sup>	Apr. to May <sup>P</sup>	May to June <sup>P</sup>
Household furniture <sup>2</sup> .....	12	1	1.9	0.2	-0.3	-0.1	0.4	0.3
Commercial furniture <sup>2</sup> .....	12	2	5.5	0.5	-0.1	0.5	-0.3	0.7
Floor coverings <sup>2</sup> .....	12	3	2.0	-0.2	0.4	-0.2	-0.4	0.0
Household appliances <sup>2</sup> .....	12	4	1.7	-0.4	0.2	1.1	0.1	-0.4
Home electronic equipment <sup>2</sup> .....	12	5	2.8	0.0	0.0	0.0	0.0	0.0
Lawn and garden equipment excl. garden tractors <sup>2</sup> .....	12	66	3.7	-0.1	0.3	-0.3	0.0	0.0
Passenger cars.....	14	1101	-1.7	-0.4	-0.8	-0.3	-0.7	0.2
Light motor trucks.....	14	1105	3.5	0.5	-0.4	0.1	-0.2	0.4
Heavy motor trucks <sup>2</sup> .....	14	1106	1.6	0.0	0.1	0.1	0.3	0.0
Motor vehicles parts <sup>2</sup> .....	14	12	1.9	0.2	0.2	0.2	-0.1	0.2
Truck trailers <sup>2</sup> .....	14	14	-2.0	0.0	0.5	-0.2	0.0	-0.8
Travel trailers and campers <sup>2</sup> .....	14	16	2.5	0.1	0.0	0.0	0.0	0.5
Aircraft.....	14	21	4.3	0.6	0.5	0.5	0.3	0.1
Ships <sup>2</sup> .....	14	31	2.0	0.6	0.1	0.8	0.0	0.7
Railroad equipment <sup>2</sup> .....	14	4	2.1	0.8	0.0	0.0	0.0	0.4
Toys, games, and children's vehicles <sup>2</sup> .....	15	11	2.3	0.3	0.0	0.0	0.0	0.0
Sporting and athletic goods <sup>2</sup> .....	15	12	6.1	-0.4	-0.3	0.4	0.0	0.0
Cigarettes <sup>2</sup> .....	15	21	12.2	0.0	0.0	1.9	0.0	1.1
Mobile homes <sup>2</sup> .....	15	5	-4.8	-0.2	0.0	0.5	0.2	0.0
Medical, surgical & personal aid devices.....	15	6	3.0	0.3	-0.2	0.1	0.8	-0.1
Jewelry, platinum and karat gold <sup>2</sup> .....	15	9402	4.9	0.9	1.5	1.0	-1.7	-0.5
Costume jewelry and novelties <sup>2</sup> .....	15	9404	9.9	0.0	1.1	0.9	0.0	2.6
Final demand services.....	FD	42	2.5	-0.1	0.2	0.2	-0.1	0.5
Final demand trade services <sup>3</sup> .....	FD	423	1.2	-0.6	0.4	0.9	-0.8	0.7
Machinery and equipment parts and supplies wholesaling <sup>2</sup> .....	57	1102	3.4	4.9	-2.7	2.8	-2.1	0.9
Machinery and vehicle wholesaling <sup>2</sup> .....	57	1103	0.5	-2.3	1.2	0.8	-5.0	3.7
Professional and commercial equipment wholesaling <sup>2</sup> .....	57	1104	3.0	5.1	-2.7	1.2	-0.6	-1.4
Furnishings wholesaling <sup>2</sup> .....	57	2	-2.0	1.1	-0.3	-6.9	1.1	0.0
Chemicals and allied products wholesaling <sup>2</sup> .....	57	5	5.0	-3.2	1.6	0.4	0.1	2.4
Paper and plastics products wholesaling <sup>2</sup> .....	57	6	2.6	0.5	0.3	0.3	-0.4	-0.9
Apparel wholesaling <sup>2</sup> .....	57	7	7.7	-5.6	7.1	-5.5	3.2	-1.2
Food and alcohol wholesaling <sup>2</sup> .....	57	8	3.1	0.5	2.7	2.2	-2.3	0.6
Food and alcohol retailing.....	58	1	8.0	1.1	-1.0	1.5	2.3	-2.5
Health, beauty, and optical goods retailing <sup>2</sup> .....	58	2	2.8	-1.0	-0.6	1.6	-0.6	-0.4
Apparel, jewelry, footwear, and accessories retailing.....	58	3	3.5	0.8	-4.1	4.5	-1.8	-1.2
Computer hardware, software, and supplies retailing <sup>2</sup> .....	58	4	-26.4	2.2	-2.3	-0.6	-1.7	-0.3
TV, video, and photographic equipment and supplies retailing.....	58	5	-5.4	6.8	1.3	-8.7	12.6	-3.9
Automobiles retailing (partial).....	58	6101	-24.6	-0.8	-2.4	-1.2	-1.8	0.5
Automotive parts, including tires, retailing <sup>2</sup> .....	58	6102	1.4	-1.9	-3.8	0.8	1.6	-0.2
RVs, trailers, and campers retailing <sup>2</sup> .....	58	8	-19.5	9.1	-2.2	9.3	-4.0	0.2
Sporting goods, including boats, retailing.....	58	9	4.5	-0.4	2.9	0.4	-1.6	3.1
Lawn, garden, and farm equipment and supplies retailing <sup>2</sup> .....	58	A	17.8	12.4	1.5	-1.3	0.1	2.5
Furniture retailing <sup>2</sup> .....	58	B	3.7	-2.2	2.0	0.9	1.0	-1.1
Flooring and floor coverings retailing <sup>2</sup> .....	58	C	-2.6	0.9	-0.1	-0.5	0.9	0.4
Hardware, building materials, and supplies retailing.....	58	D	-7.7	0.4	-2.6	0.2	4.6	5.6
Major household appliances retailing.....	58	E	-3.4	-8.4	3.3	-4.0	-1.4	-0.2
Fuels and lubricants retailing.....	58	F	-9.9	-12.8	-1.0	12.1	-2.3	-8.4
Cleaning supplies and paper products retailing <sup>2</sup> .....	58	G	6.5	-0.1	6.0	-1.9	3.1	-3.6
Book retailing <sup>2</sup> .....	58	H	-0.1	0.6	0.1	0.3	0.5	0.0
Final demand transportation and warehousing services.....	FD	422	-6.0	-0.7	-2.4	-0.4	0.0	0.5
Rail transportation of freight and mail <sup>2</sup> .....	30	11	-1.7	-0.2	-0.2	-0.9	-0.4	-0.1
Truck transportation of freight <sup>2</sup> .....	30	12	-12.4	-1.6	-3.0	-0.5	-0.7	-0.2
Air transportation of freight <sup>2</sup> .....	30	14	-8.4	-2.7	0.2	-0.5	-1.3	2.2
Courier, messenger, and U.S. postal services.....	30	16	4.6	-0.4	0.0	0.1	-0.1	1.6
Rail transportation of passengers.....	30	21	0.0	0.1	-0.1	0.1	-0.2	0.1
Airline passenger services.....	30	22	3.4	1.3	-3.1	-0.8	1.8	1.7
Final demand services less trade, transportation, and warehousing.....	FD	421	4.2	0.2	0.5	0.0	0.3	0.3
Sales of books.....	33	11	6.8	0.2	1.1	0.3	0.5	0.5
Sales and subscriptions of periodicals and newspapers.....	33	12	1.5	-0.5	0.0	0.3	-0.3	0.2
Application software publishing <sup>2</sup> .....	34	2	-3.1	0.5	-0.4	1.1	-0.1	-2.2
Advertising space sales in periodicals, newspapers, directories, and mailing lists <sup>2</sup> .....	36	1	4.2	0.9	0.0	0.0	0.0	0.0
Residential wired telecommunication services <sup>2</sup> .....	37	11	7.0	0.4	1.3	1.4	0.2	-0.1
Wireless telecommunication services.....	37	2	1.9	0.1	0.1	0.6	0.2	0.1
Cable and satellite subscriber services.....	37	3	10.6	1.5	0.7	0.2	1.1	-0.1
Internet access services <sup>2</sup> .....	37	4	1.0	1.1	-0.1	-0.8	0.7	-0.3

See footnotes at end of table.

**Table 2. Producer price index percentage changes for selected commodity groupings by Final Demand-Intermediate Demand category, seasonally adjusted — Continued**  
 [July 2023]

Grouping	Commodity code		Unadjusted 12-month percent change <sup>1</sup>	Seasonally adjusted 1-month percent change <sup>1</sup>				
	Group code	Item code		July 2022 to July 2023 <sup>P</sup>	Feb. to Mar.	Mar. to Apr. <sup>P</sup>	Apr. to May <sup>P</sup>	May to June <sup>P</sup>
Bundled wired telecommunications access services <sup>2</sup> .....	37	5	5.5	1.3	0.0	-1.5	0.0	-0.5
Consumer loans (partial).....	39	12	-0.7	-4.7	3.0	-0.4	-2.7	-0.7
Deposit services (partial) <sup>2</sup> .....	39	2	22.4	3.0	0.6	0.1	5.6	-0.5
Other credit intermediation, incl. trust services (partial) <sup>2</sup> .....	39	3	-3.6	0.0	0.2	1.3	0.0	0.0
Securities brokerage, dealing, investment advice, and related services <sup>2</sup> ...	40	1	37.2	-0.3	-0.4	3.2	0.1	1.8
Portfolio management <sup>2</sup> .....	40	2	10.1	-3.9	4.0	-3.0	-0.4	7.6
Life insurance <sup>2</sup> .....	41	1101	-0.6	0.0	0.0	0.0	0.0	-0.3
Disability insurance, including accidental death <sup>2</sup> .....	41	1102	0.0	0.0	0.0	0.0	0.0	0.0
Health and medical insurance.....	41	1103	3.0	0.2	0.2	0.0	0.2	0.0
Property and casualty insurance <sup>2</sup> .....	41	1104	6.6	0.3	0.4	0.4	2.0	0.1
Annuities <sup>2</sup> .....	41	2	0.2	0.3	0.2	0.0	-0.1	0.5
Residential property sales and leases, brokerage fees and commissions..	43	21	3.2	0.5	0.9	0.9	0.4	0.5
Passenger car rental.....	44	1	-5.8	-1.0	2.6	-3.1	-2.7	0.4
Legal services.....	45	1	6.4	0.4	0.2	-0.2	0.3	0.6
Tax preparation and planning.....	45	2102	7.1	0.3	0.3	0.6	-0.9	1.6
Architectural and engineering services.....	45	3	3.3	0.0	0.7	0.2	0.2	0.3
Management, scientific, and technical consulting services.....	45	4	3.4	-2.2	2.5	0.2	1.1	-0.1
Arrangement of flights (partial).....	47	1	2.8	0.7	0.2	0.1	-0.9	1.3
Arrangement of vehicle rentals and lodging <sup>2</sup> .....	47	2	5.3	0.7	1.8	-1.2	-1.0	-1.5
Arrangement of cruises and tours <sup>2</sup> .....	47	3	7.8	-1.9	1.9	1.9	5.0	1.5
Physician care.....	51	1101	0.7	0.1	0.1	0.1	0.1	0.0
Medical laboratory and diagnostic imaging care <sup>2</sup> .....	51	1102	0.4	0.0	0.0	0.1	0.0	0.0
Home health and hospice care.....	51	1103	4.8	0.4	1.0	0.1	0.3	0.2
Hospital outpatient care <sup>2</sup> .....	51	1104	1.5	0.2	0.7	0.2	-0.2	0.7
Dental care.....	51	1105	3.1	0.1	0.0	0.0	0.0	0.1
Hospital inpatient care.....	51	2101	3.4	0.6	0.3	0.3	0.4	-0.3
Nursing home care.....	51	2102	5.6	0.5	0.2	0.2	-0.1	0.6
Traveler accommodation services.....	53	11	1.7	6.2	1.1	-2.9	2.2	-0.6
Food and beverages for immediate consumption services (partial) <sup>2</sup> .....	54	1	1.8	0.1	0.4	0.0	0.0	0.3
Motor vehicle repair and maintenance (partial).....	55	2	5.2	1.0	0.4	0.4	0.4	-0.1
Membership dues and admissions and recreation facility use fees (partial) <sup>2</sup> .....	56	1	6.1	0.2	0.2	-1.7	0.0	0.5
Recreational activity instruction fees (partial) <sup>2</sup> .....	56	2	0.2	0.0	0.0	0.1	0.0	0.0
Gaming receipts (partial) <sup>2</sup> .....	56	3	-1.3	0.4	-1.7	0.2	0.0	-1.0
Mining services <sup>2</sup> .....	60	1	4.7	1.1	-0.7	-0.5	-0.3	0.0
Final demand construction.....	FD	43	3.8	0.1	-0.2	0.1	0.0	-1.3
New warehouse building construction <sup>2</sup> .....	80	1101	1.5	-0.2	-0.3	0.4	0.2	-0.7
New school building construction <sup>2</sup> .....	80	1102	3.8	0.2	-0.4	0.0	0.0	-1.1
New office building construction <sup>2</sup> .....	80	1103	5.3	0.2	0.2	0.1	-0.1	-2.3
New industrial building construction <sup>2</sup> .....	80	1104	2.6	0.1	-0.5	0.0	0.1	-1.6
New health care building construction <sup>2</sup> .....	80	1105	4.5	0.1	-0.3	0.0	-0.1	-0.8
<b>Intermediate Demand by Commodity Type</b>								
Processed goods for intermediate demand.....	ID6	1	-7.8	-1.0	-0.5	-1.5	-0.5	-0.6
Processed foods and feeds.....	ID6	9112	-5.1	-0.2	-1.1	-1.8	-1.1	1.4
Meats.....	02	21	9.1	1.9	-3.2	1.9	0.9	5.0
Processed poultry.....	02	22	-27.5	1.0	-1.8	-2.6	-0.5	-2.0
Dairy products.....	02	3	-12.7	-1.7	-0.2	-1.3	-2.1	-1.5
Processed fruits and vegetables <sup>2</sup> .....	02	4	12.5	0.7	0.2	1.3	0.9	0.1
Refined sugar and byproducts <sup>2</sup> .....	02	53	12.5	0.4	0.1	1.1	0.8	0.8
Fats and oils <sup>2</sup> .....	02	7	-24.7	-4.1	-5.4	-3.5	-6.1	1.2
Prepared animal feeds.....	02	9	-2.4	0.0	-1.4	-2.2	-0.8	2.2
Processed materials less foods and feeds.....	ID6	9111	-8.0	-1.1	-0.5	-1.5	-0.4	-0.7
Synthetic fibers <sup>2</sup> .....	03	1	2.7	-0.3	0.0	-1.1	-0.8	1.9
Processed yarns and threads <sup>2</sup> .....	03	2	-14.5	-0.2	-1.0	-1.0	0.3	0.3
Finished fabrics <sup>2</sup> .....	03	4	-0.6	0.0	-0.1	-0.2	-0.2	-0.4
Liquefied petroleum gas <sup>2</sup> .....	05	32	-48.6	-11.4	-3.1	-17.2	-8.3	24.6
Commercial electric power.....	05	42	5.7	-2.7	0.0	0.8	0.9	-0.6
Industrial electric power.....	05	43	6.1	-0.8	-1.6	2.2	1.2	-1.0
Commercial natural gas.....	05	52	-19.4	-10.4	-5.9	-6.1	-2.4	3.7
Industrial natural gas.....	05	53	-18.6	-7.8	-6.9	-6.0	-2.5	10.2
Natural gas to electric utilities.....	05	54	-18.4	-6.3	-5.7	-10.6	-2.3	4.7
Gasoline.....	05	71	-24.5	-11.6	8.1	-13.6	3.2	-1.1
Jet fuel <sup>2</sup> .....	05	7203	-38.3	-6.1	-12.7	-11.6	1.5	3.0
No. 2 diesel fuel.....	05	7303	-45.2	-6.3	-3.6	-13.6	-5.4	-7.1
Residual fuels <sup>2</sup> .....	05	74	-36.8	13.2	-1.0	11.2	-9.8	4.5

See footnotes at end of table.

**Table 2. Producer price index percentage changes for selected commodity groupings by Final Demand-Intermediate Demand category, seasonally adjusted — Continued**  
[July 2023]

Grouping	Commodity code		Unadjusted 12-month percent change <sup>1</sup>	Seasonally adjusted 1-month percent change <sup>1</sup>				
	Group code	Item code		July 2022 to July 2023 <sup>P</sup>	Feb. to Mar.	Mar. to Apr. <sup>P</sup>	Apr. to May <sup>P</sup>	May to June <sup>P</sup>
Finished lubricants <sup>2</sup> .....	05	76	5.3	0.1	-0.9	0.1	1.3	-0.4
Lubricating oil base stocks <sup>2</sup> .....	05	78	-38.4	-3.0	-2.0	-12.7	0.7	-3.0
Asphalt.....	05	8102	-36.5	3.3	9.7	4.6	-0.3	-5.4
Basic inorganic chemicals <sup>2</sup> .....	06	13	-4.7	-0.4	-1.6	-1.3	-1.2	-3.7
Basic organic chemicals.....	06	14	-19.4	-3.3	-0.3	-2.2	-1.8	-1.4
Prepared paint <sup>2</sup> .....	06	21	0.9	-0.2	0.2	0.1	0.0	-0.2
Paint materials <sup>2</sup> .....	06	22	4.6	3.2	-0.4	2.2	0.4	-3.5
Medicinal and botanical chemicals <sup>2</sup> .....	06	31	1.1	0.5	0.1	0.0	-0.1	0.0
Biological products, including diagnostics.....	06	37	5.3	0.4	0.7	-0.2	0.1	1.0
Fats and oils, inedible <sup>2</sup> .....	06	4	-12.5	-2.5	-3.1	-4.1	0.5	6.8
Nitrogenates.....	06	5201	-45.4	-9.9	-9.0	-6.5	-11.2	-1.4
Phosphates.....	06	5202	-	-5.0	2.0	-4.7	0.2	-
Other agricultural chemicals <sup>2</sup> .....	06	53	-16.9	1.0	-4.9	-2.3	-1.3	-0.1
Plastic resins and materials.....	06	6	-14.9	0.2	2.3	-1.6	-2.4	-3.9
Industrial gases <sup>2</sup> .....	06	7903	-1.2	1.0	-0.8	1.2	-1.6	0.3
Adhesives and sealants <sup>2</sup> .....	06	7904	4.9	0.3	0.6	0.1	-0.2	0.0
Synthetic rubber <sup>2</sup> .....	07	1102	-18.3	-1.2	1.2	-1.0	-2.8	-5.6
Tires <sup>2</sup> .....	07	1201	6.2	0.0	0.3	-0.2	-0.3	0.0
Plastic construction products <sup>2</sup> .....	07	21	-4.7	0.1	-0.2	-0.7	-0.9	-0.1
Unsupported plastic film, sheet, other shapes <sup>2</sup> .....	07	22	-7.1	-1.5	0.1	-0.3	-1.9	-1.4
Parts for manufacturing from plastics <sup>2</sup> .....	07	26	-1.6	-0.1	-0.4	-0.4	-0.2	-0.1
Plastic packaging products <sup>2</sup> .....	07	2A	-3.9	-0.2	0.0	0.1	-0.4	-0.3
Softwood lumber.....	08	11	-17.3	-4.1	6.2	-2.9	3.9	8.6
Hardwood lumber <sup>2</sup> .....	08	12	-17.5	-1.3	-0.8	0.3	-1.0	-1.1
Millwork.....	08	2	-4.5	-0.8	-1.2	-0.4	-0.3	-0.1
Plywood <sup>2</sup> .....	08	3	-15.1	-1.0	-0.5	-0.8	-0.7	-0.4
Paper <sup>2</sup> .....	09	13	2.2	-0.4	0.7	-0.6	-0.3	-0.2
Paperboard <sup>2</sup> .....	09	14	-4.5	-0.9	-0.9	-0.1	-0.3	-1.0
Paper boxes and containers <sup>2</sup> .....	09	1503	1.2	-0.8	-0.5	0.6	-1.1	-0.3
Building paper and board <sup>2</sup> .....	09	2	-8.6	0.8	2.1	6.1	2.4	0.0
Commercial printing <sup>2</sup> .....	09	47	5.6	0.3	-0.3	0.3	0.0	0.0
Foundry and forge shop products <sup>2</sup> .....	10	15	-0.2	0.2	0.9	-0.3	-0.3	-1.1
Steel mill products <sup>2</sup> .....	10	17	-20.9	0.9	3.6	5.4	-0.4	-7.6
Primary nonferrous metals <sup>2</sup> .....	10	22	6.4	-5.2	0.9	3.0	-0.2	2.1
Secondary nonferrous metals <sup>2</sup> .....	10	24	-1.3	0.3	-0.4	-0.6	-2.7	-1.2
Aluminum mill shapes <sup>2</sup> .....	10	2501	-7.8	0.0	-1.8	0.4	-1.0	-1.4
Copper and brass mill shapes <sup>2</sup> .....	10	2502	3.3	0.0	-0.9	-2.2	-1.9	-0.1
Nonferrous wire and cable <sup>2</sup> .....	10	26	-0.4	-0.8	0.0	-1.8	-1.7	0.2
Nonferrous foundry shop products.....	10	28	3.9	-0.1	0.8	-0.2	-0.1	0.2
Metal containers <sup>2</sup> .....	10	3	-3.2	-0.3	0.2	0.3	-0.2	-1.3
Hardware <sup>2</sup> .....	10	4	2.9	0.2	0.0	0.0	0.2	0.1
Plumbing fixtures and brass fittings.....	10	5	2.0	0.4	-0.6	0.7	0.1	0.6
Heating equipment <sup>2</sup> .....	10	6	5.9	1.2	0.4	-0.4	0.3	0.2
Fabricated structural metal products.....	10	7	-2.0	0.3	0.2	-0.5	-0.8	0.1
Bolts, nuts, screws, rivets, and washers <sup>2</sup> .....	10	81	7.8	0.3	0.4	0.8	0.6	0.8
Lighting fixtures <sup>2</sup> .....	10	83	4.2	1.5	0.0	0.4	0.1	0.5
Fabricated ferrous wire products <sup>2</sup> .....	10	88	-9.0	-0.6	0.3	0.0	-0.8	-2.3
Other miscellaneous metal products <sup>2</sup> .....	10	89	3.4	-0.3	0.1	-0.1	0.4	0.0
Fluid power equipment.....	11	43	11.8	0.4	6.5	-0.1	0.3	0.5
Mechanical power transmission equipment <sup>2</sup> .....	11	45	7.8	0.0	0.2	0.4	0.2	0.0
Air conditioning and refrigeration equipment.....	11	48	3.7	1.7	0.0	0.6	-0.6	0.3
Metal valves, except fluid power.....	11	4902	6.8	0.1	-0.1	1.0	0.1	0.1
Ball and roller bearings <sup>2</sup> .....	11	4905	1.4	2.3	-0.2	0.0	0.1	0.0
Wiring devices <sup>2</sup> .....	11	71	12.9	0.5	0.2	0.0	0.7	0.0
Motors, generators, motor generator sets <sup>2</sup> .....	11	73	7.1	0.0	0.5	0.0	0.0	1.1
Switchgear, switchboard, and industrial controls equip. <sup>2</sup> .....	11	75	8.4	0.2	0.5	0.1	1.2	0.3
Electronic components and accessories.....	11	78	0.5	0.0	-0.4	-1.1	0.3	0.6
Internal combustion engines <sup>2</sup> .....	11	94	6.5	0.0	0.3	0.0	0.1	0.6
Machine shop products <sup>2</sup> .....	11	95	5.6	0.1	0.2	0.5	0.2	0.2
Flat glass <sup>2</sup> .....	13	11	6.9	-0.2	-0.3	-0.6	0.4	0.3
Cement.....	13	22	12.6	0.7	-1.3	1.1	-0.1	1.3
Concrete products.....	13	3	9.6	0.7	0.1	1.2	0.2	0.1
Asphalt felts and coatings <sup>2</sup> .....	13	6	4.6	0.1	1.9	0.5	1.6	0.9
Paving mixtures and blocks.....	13	94	-1.3	1.2	-1.0	-1.9	-1.0	-0.7
Motor vehicle parts <sup>2</sup> .....	14	12	1.9	0.2	0.2	0.2	-0.1	0.2
Aircraft engines and engine parts.....	14	23	3.4	0.1	0.3	0.1	0.0	0.4

See footnotes at end of table.



**Table 2. Producer price index percentage changes for selected commodity groupings by Final Demand-Intermediate Demand category, seasonally adjusted — Continued**  
 [July 2023]

Grouping	Commodity code		Unadjusted 12-month percent change <sup>1</sup>	Seasonally adjusted 1-month percent change <sup>1</sup>				
	Group code	Item code		July 2022 to July 2023 <sup>P</sup>	Feb. to Mar.	Mar. to Apr. <sup>P</sup>	Apr. to May <sup>P</sup>	May to June <sup>P</sup>
Aircraft parts and auxiliary equipment, n.e.c.....	14	25	5.5	1.0	0.0	0.1	0.0	0.1
Medical, surgical, and personal aid devices.....	15	6	3.0	0.3	-0.2	0.1	0.8	-0.1
Unprocessed goods for intermediate demand.....	ID6	2	-24.9	-4.7	1.1	-5.3	-1.2	1.7
Unprocessed foodstuffs and feedstuffs.....	ID6	21	-13.3	-0.7	-1.5	-4.6	1.0	-0.9
Wheat <sup>2</sup> .....	01	21	-9.8	-9.3	4.0	-3.3	-3.9	1.7
Corn.....	01	2202	-22.1	-7.5	2.4	-6.0	3.4	-10.7
Slaughter cattle.....	01	31	29.4	4.1	8.0	-0.5	6.0	2.4
Slaughter hogs.....	01	32	-18.7	-3.3	-8.0	-4.9	12.2	8.5
Slaughter chickens.....	01	4102	-24.4	1.8	-0.1	-0.4	-0.6	-7.1
Slaughter turkeys.....	01	42	-11.9	-0.9	-2.4	-2.1	-8.5	-8.3
Raw milk.....	01	6	-33.0	-3.3	-3.8	-5.9	-6.3	-1.5
Hay and hayseeds <sup>2</sup> .....	01	81	-14.9	-5.0	-15.3	3.4	4.1	0.3
Oilseeds.....	01	8301	-3.7	-4.2	0.5	-1.2	-6.9	9.0
Raw cane sugar and byproducts <sup>2</sup> .....	02	5201	15.9	2.3	-0.2	-2.5	6.8	-2.0
Unprocessed nonfood materials.....	ID6	22	-30.6	-7.2	2.8	-5.8	-2.6	3.4
Raw cotton <sup>2</sup> .....	01	51	-26.6	-5.1	-0.3	-3.2	0.5	-1.1
Hides and skins.....	04	1	-9.8	4.9	3.1	4.7	-1.7	-6.4
Coal.....	05	1	-7.0	-4.0	1.7	-2.9	3.7	1.4
Natural gas <sup>2</sup> .....	05	31	-72.5	-25.5	-22.8	-2.0	-1.7	11.0
Crude petroleum <sup>2</sup> .....	05	61	-24.8	-7.1	11.2	-9.8	-4.3	8.4
Logs, bolts, timber, pulpwood, and woodchips <sup>2</sup> .....	08	5	-3.8	-1.1	-0.7	0.0	0.2	-0.5
Recyclable paper <sup>2</sup> .....	09	12	-56.5	-0.4	6.2	4.2	-1.0	2.7
Iron ores <sup>2</sup> .....	10	11	-4.3	-0.5	1.0	-6.4	0.3	-0.7
Iron and steel scrap.....	10	12	-12.5	3.1	5.6	-6.2	-10.7	2.0
Nonferrous metal ores <sup>2</sup> .....	10	21	1.5	4.0	0.6	-1.4	-2.3	-4.5
Copper base scrap <sup>2</sup> .....	10	2301	13.9	0.2	-0.3	-3.5	0.6	0.3
Aluminum base scrap.....	10	2302	-4.1	-4.5	-1.4	4.0	-1.5	-2.8
Construction sand, gravel, and crushed stone.....	13	21	8.0	0.0	0.0	0.1	0.7	0.1
Services for intermediate demand.....	ID6	3	4.6	-0.3	0.7	0.2	0.0	0.5
Trade services for intermediate demand <sup>3</sup> .....	ID6	33	1.1	0.9	0.8	-0.1	-0.6	1.3
Machinery and equipment parts and supplies wholesaling <sup>2</sup> .....	57	1102	3.4	4.9	-2.7	2.8	-2.1	0.9
Building materials, paint, and hardware wholesaling.....	57	3	-8.9	-1.5	-1.6	-1.6	1.2	-0.7
Metals, minerals, and ores wholesaling <sup>2</sup> .....	57	4	-2.7	10.4	2.1	-9.8	-3.2	0.9
Chemicals and allied products wholesaling <sup>2</sup> .....	57	5	5.0	-3.2	1.6	0.4	0.1	2.4
Paper and plastics products wholesaling <sup>2</sup> .....	57	6	2.6	0.5	0.3	0.3	-0.4	-0.9
Food wholesaling <sup>2</sup> .....	57	8101	2.4	0.7	3.1	2.5	-2.6	0.7
Automotive parts, including tires, retailing <sup>2</sup> .....	58	6102	1.4	-1.9	-3.8	0.8	1.6	-0.2
Hardware, building material, and supplies retailing.....	58	D	-7.7	0.4	-2.6	0.2	4.6	5.6
Transportation and warehousing services for intermediate demand.....	ID6	32	-3.1	-1.0	-1.1	-0.4	-0.1	0.4
Rail transportation of freight and mail <sup>2</sup> .....	30	11	-1.7	-0.2	-0.2	-0.9	-0.4	-0.1
Truck transportation of freight <sup>2</sup> .....	30	12	-12.4	-1.6	-3.0	-0.5	-0.7	-0.2
Water transportation of freight <sup>2</sup> .....	30	13	0.7	-4.8	0.2	6.0	-1.9	-0.1
Air transportation of freight <sup>2</sup> .....	30	14	-8.4	-2.7	0.2	-0.5	-1.3	2.2
U.S. Postal Service <sup>2</sup> .....	30	1601	9.0	0.0	0.0	0.0	0.0	3.8
Courier and messenger services, except air mail.....	30	1602	3.8	-0.1	0.1	0.7	0.1	0.6
Air mail and package delivery services, excluding by USPS.....	30	1603	-1.6	-1.4	0.0	-0.8	-0.5	0.3
Pipeline transportation <sup>2</sup> .....	30	17	1.3	0.0	-1.1	0.2	-1.2	0.0
Transportation of passengers (partial).....	30	2	3.4	1.3	-3.0	-0.8	1.8	1.7
Services related to water transportation.....	31	1	2.0	-1.1	-0.1	1.4	-0.4	0.0
Arrangement of freight and cargo <sup>2</sup> .....	31	31	-30.2	-6.4	-4.1	-2.0	3.2	-2.2
Warehousing, storage, and related services <sup>2</sup> .....	32	1	5.3	-0.3	0.0	-3.3	-1.2	1.3
Services less trade, transportation, and warehousing for intermediate demand.....	ID6	31	7.5	-0.5	1.0	0.4	0.1	0.3
Network compensation from broadcast TV, cable TV, radio <sup>2</sup> .....	35	-	1.0	1.1	0.0	0.2	0.0	0.0
Advertising space sales in periodicals and newspapers <sup>2</sup> .....	36	11	3.2	1.0	0.0	0.0	0.0	0.0
Advertising space sales in directories and mail lists <sup>2</sup> .....	36	12	9.7	0.0	0.0	0.0	0.0	0.0
Television advertising time sales.....	36	2	-16.8	-2.9	2.8	-0.9	-2.1	-1.0
Radio advertising time sales.....	36	3	-8.0	-2.7	-1.2	6.0	-2.7	-7.2
Internet advertising sales <sup>2</sup> .....	36	6	-	0.0	6.7	0.0	0.0	-0.2
Business wired telecommunication services <sup>2</sup> .....	37	12	3.6	0.1	0.7	0.0	-0.6	1.8
Wireless telecommunication services.....	37	2	1.9	0.1	0.1	0.6	0.2	0.1
Cable and satellite subscriber services.....	37	3	10.6	1.5	0.7	0.2	1.1	-0.1
Bundled wired telecommunication access services <sup>2</sup> .....	37	5	5.5	1.3	0.0	-1.5	0.0	-0.5
Data processing and related services <sup>2</sup> .....	38	1	1.8	0.3	-0.1	0.1	0.3	0.3
Business loans (partial).....	39	11	55.7	-5.8	2.7	3.4	-2.2	-1.5

See footnotes at end of table.

**Table 2. Producer price index percentage changes for selected commodity groupings by Final Demand-Intermediate Demand category, seasonally adjusted — Continued**  
 [July 2023]

Grouping	Commodity code		Unadjusted 12-month percent change <sup>1</sup>	Seasonally adjusted 1-month percent change <sup>1</sup>				
	Group code	Item code		July 2022 to July 2023 <sup>P</sup>	Feb. to Mar.	Mar. to Apr. <sup>P</sup>	Apr. to May <sup>P</sup>	May to June <sup>P</sup>
Deposit services (partial) <sup>2</sup> .....	39	2	22.4	3.0	0.6	0.1	5.6	-0.5
Other credit intermediation, incl. trust services (partial) <sup>2</sup> .....	39	3	-3.6	0.0	0.2	1.3	0.0	0.0
Securities brokerage, dealing, investment advice, and related services <sup>2</sup> .....	40	1	37.2	-0.3	-0.4	3.2	0.1	1.8
Portfolio management <sup>2</sup> .....	40	2	10.1	-3.9	4.0	-3.0	-0.4	7.6
Investment banking <sup>2</sup> .....	40	3	1.7	1.5	-0.8	1.4	-0.5	0.0
Life insurance <sup>2</sup> .....	41	1101	-0.6	0.0	0.0	0.0	0.0	-0.3
Health and medical insurance.....	41	1103	3.0	0.2	0.2	0.0	0.2	0.0
Property and casualty insurance <sup>2</sup> .....	41	1104	6.6	0.3	0.4	0.4	2.0	0.1
Annuities <sup>2</sup> .....	41	2	0.2	0.3	0.2	0.0	-0.1	0.5
Commissions from sales of insurance <sup>2</sup> .....	42	1	0.4	0.0	0.0	0.0	0.0	-0.5
Nonresidential real estate rents <sup>2</sup> .....	43	11	3.8	-1.7	2.5	0.3	1.4	-1.1
Nonresidential property sales and leases <sup>2</sup> .....	43	12	-2.1	-0.6	-0.4	-0.3	0.4	-0.6
Residential property management fees <sup>2</sup> .....	43	22	1.8	-0.1	0.5	0.7	-0.2	0.8
Passenger car rental.....	44	1	-5.8	-1.0	2.6	-3.1	-2.7	0.4
Truck, utility trailer, and RV rental and leasing <sup>2</sup> .....	44	2	2.0	0.7	0.2	-1.4	2.3	-0.1
Construction, mining, and forestry machinery and equipment rental and leasing <sup>2</sup> .....	44	3	6.5	-0.1	0.2	0.2	-0.2	0.3
Legal services.....	45	1	6.4	0.4	0.2	-0.2	0.3	0.6
Accounting services (partial).....	45	2	10.1	1.0	0.7	0.4	-0.3	2.0
Architectural and engineering services.....	45	3	3.3	0.0	0.7	0.2	0.2	0.3
Management, scientific, and technical consulting services.....	45	4	3.4	-2.2	2.5	0.2	1.1	-0.1
Advertising and related services (partial) <sup>2</sup> .....	45	5	0.5	0.2	0.0	0.0	-0.1	0.0
Permanent placement services <sup>2</sup> .....	46	1	0.6	1.2	2.4	-1.0	-0.6	0.6
Executive search services <sup>2</sup> .....	46	2	3.4	0.2	-0.7	-0.5	-0.6	0.7
Staffing services.....	46	3	1.0	0.5	0.7	0.0	-0.3	0.2
Security guard services <sup>2</sup> .....	48	1	7.2	0.3	0.1	2.1	0.1	0.2
Janitorial services <sup>2</sup> .....	49	1	2.1	0.1	0.9	0.1	0.0	-0.1
Waste collection.....	50	1	9.8	1.1	1.1	0.7	0.5	-0.1
Traveler accommodation services.....	53	11	1.7	6.2	1.1	-2.9	2.2	-0.6
Commercial and industrial machinery and equipment repair and maintenance.....	55	1	8.4	1.1	1.9	-0.4	0.1	0.8
Aircraft repair and maintenance.....	55	4	4.8	0.7	0.4	0.2	0.2	0.6
Metal treatment services <sup>2</sup> .....	59	1	4.6	0.0	0.7	0.4	-0.2	0.7
Construction for intermediate demand.....	ID6	4	4.4	0.4	0.1	1.4	0.1	0.3
Maintenance and repair of non-residential buildings (partial) <sup>2</sup> .....	80	2	4.4	0.4	0.1	1.4	0.1	0.3
<b>Intermediate Demand by Production Flow</b>								
Stage 4 intermediate demand.....	ID5	4	2.0	-0.3	0.3	-0.1	-0.1	0.3
Stage 4 intermediate demand goods.....	ID5	9411	-1.6	-0.5	-0.2	-0.5	0.0	-0.3
Grains.....	01	2	-19.1	-7.4	2.7	-5.5	1.9	-8.7
Meats.....	02	21	9.1	1.9	-3.2	1.9	0.9	5.0
Unprocessed and packaged fish.....	02	23	0.5	0.6	-1.4	1.3	-1.9	0.9
Dairy products.....	02	3	-12.7	-1.7	-0.2	-1.3	-2.1	-1.5
Commercial electric power.....	05	42	5.7	-2.7	0.0	0.8	0.9	-0.6
Industrial electric power.....	05	43	6.1	-0.8	-1.6	2.2	1.2	-1.0
Gasoline.....	05	71	-24.5	-11.6	8.1	-13.6	3.2	-1.1
No. 2 diesel fuel.....	05	7303	-45.2	-6.3	-3.6	-13.6	-5.4	-7.1
Basic organic chemicals.....	06	14	-19.4	-3.3	-0.3	-2.2	-1.8	-1.4
Prepared paint <sup>2</sup> .....	06	21	0.9	-0.2	0.2	0.1	0.0	-0.2
Medicinal and botanical chemicals <sup>2</sup> .....	06	31	1.1	0.5	0.1	0.0	-0.1	0.0
Biological products, including diagnostics.....	06	37	5.3	0.4	0.7	-0.2	0.1	1.0
Pharmaceutical preparations.....	06	38	2.4	0.0	0.3	0.0	0.1	0.2
Plastic construction products <sup>2</sup> .....	07	21	-4.7	0.1	-0.2	-0.7	-0.9	-0.1
Unsupported plastic film, sheet, and other shapes <sup>2</sup> .....	07	22	-7.1	-1.5	0.1	-0.3	-1.9	-1.4
Parts for manufacturing from plastics <sup>2</sup> .....	07	26	-1.6	-0.1	-0.4	-0.4	-0.2	-0.1
Plastic packaging products <sup>2</sup> .....	07	2A	-3.9	-0.2	0.0	0.1	-0.4	-0.3
Lumber.....	08	1	-17.3	-3.0	3.3	-1.6	1.9	4.7
Millwork.....	08	2	-4.5	-0.8	-1.2	-0.4	-0.3	-0.1
Paper boxes and containers <sup>2</sup> .....	09	1503	1.2	-0.8	-0.5	0.6	-1.1	-0.3
Commercial printing <sup>2</sup> .....	09	47	5.6	0.3	-0.3	0.3	0.0	0.0
Steel mill products <sup>2</sup> .....	10	17	-20.9	0.9	3.6	5.4	-0.4	-7.6
Nonferrous wire and cable <sup>2</sup> .....	10	26	-0.4	-0.8	0.0	-1.8	-1.7	0.2
Fabricated structural metal products.....	10	7	-2.0	0.3	0.2	-0.5	-0.8	0.1
Other miscellaneous metal products <sup>2</sup> .....	10	89	3.4	-0.3	0.1	-0.1	0.4	0.0
Air conditioning and refrigeration equipment.....	11	48	3.7	1.7	0.0	0.6	-0.6	0.3
Wiring devices <sup>2</sup> .....	11	71	12.9	0.5	0.2	0.0	0.7	0.0

See footnotes at end of table.



**Table 2. Producer price index percentage changes for selected commodity groupings by Final Demand-Intermediate Demand category, seasonally adjusted — Continued**  
[July 2023]

Grouping	Commodity code		Unadjusted 12-month percent change <sup>1</sup>	Seasonally adjusted 1-month percent change <sup>1</sup>				
	Group code	Item code		July 2022 to July 2023 <sup>P</sup>	Feb. to Mar.	Mar. to Apr. <sup>P</sup>	Apr. to May <sup>P</sup>	May to June <sup>P</sup>
Electronic components and accessories.....	11	78	0.5	0.0	-0.4	-1.1	0.3	0.6
Miscellaneous electrical machinery and equipment <sup>2</sup> .....	11	79	2.9	0.0	0.0	0.1	0.1	0.8
Internal combustion engines <sup>2</sup> .....	11	94	6.5	0.0	0.3	0.0	0.1	0.6
Machine shop products <sup>2</sup> .....	11	95	5.6	0.1	0.2	0.5	0.2	0.2
Concrete ingredients and related products.....	13	2	9.2	0.2	-0.3	0.4	0.5	0.4
Concrete products.....	13	3	9.6	0.7	0.1	1.2	0.2	0.1
Prepared asphalt, tar roofing and siding products <sup>2</sup> .....	13	61	4.6	0.1	2.4	0.5	1.9	1.0
Paving mixtures and blocks.....	13	94	-1.3	1.2	-1.0	-1.9	-1.0	-0.7
Motor vehicle parts <sup>2</sup> .....	14	12	1.9	0.2	0.2	0.2	-0.1	0.2
Aircraft engines and engine parts.....	14	23	3.4	0.1	0.3	0.1	0.0	0.4
Aircraft parts and auxiliary equipment, n.e.c.....	14	25	5.5	1.0	0.0	0.1	0.0	0.1
Medical, surgical and personal aid devices.....	15	6	3.0	0.3	-0.2	0.1	0.8	-0.1
Stage 4 intermediate demand services.....	ID5	9412	5.5	-0.1	0.7	0.2	-0.1	0.8
Truck transportation of freight <sup>2</sup> .....	30	12	-12.4	-1.6	-3.0	-0.5	-0.7	-0.2
Courier, messenger, and U.S. postal services.....	30	16	4.6	-0.4	0.0	0.1	-0.1	1.6
Airline passenger services.....	30	22	3.4	1.3	-3.1	-0.8	1.8	1.7
Warehousing, storage, and related services <sup>2</sup> .....	32	1	5.3	-0.3	0.0	-3.3	-1.2	1.3
Advertising space sales in periodicals and newspapers <sup>2</sup> .....	36	11	3.2	1.0	0.0	0.0	0.0	0.0
Data processing and related services <sup>2</sup> .....	38	1	1.8	0.3	-0.1	0.1	0.3	0.3
Business loans (partial).....	39	11	55.7	-5.8	2.7	3.4	-2.2	-1.5
Deposit services (partial) <sup>2</sup> .....	39	2	22.4	3.0	0.6	0.1	5.6	-0.5
Securities brokerage, dealing, investment advice, and related services <sup>2</sup> .....	40	1	37.2	-0.3	-0.4	3.2	0.1	1.8
Portfolio management <sup>2</sup> .....	40	2	10.1	-3.9	4.0	-3.0	-0.4	7.6
Investment banking <sup>2</sup> .....	40	3	1.7	1.5	-0.8	1.4	-0.5	0.0
Insurance.....	41	11	3.9	0.2	0.3	0.2	0.9	-0.2
Annuities <sup>2</sup> .....	41	2	0.2	0.3	0.2	0.0	-0.1	0.5
Nonresidential real estate rents <sup>2</sup> .....	43	11	3.8	-1.7	2.5	0.3	1.4	-1.1
Nonresidential property sales and leases <sup>2</sup> .....	43	12	-2.1	-0.6	-0.4	-0.3	0.4	-0.6
Nonresidential property management fees <sup>2</sup> .....	43	13	10.1	-1.1	1.5	-0.1	0.2	5.2
Residential property management fees <sup>2</sup> .....	43	22	1.8	-0.1	0.5	0.7	-0.2	0.8
Construction, mining, and forestry machinery and equipment rental and leasing <sup>2</sup> .....	44	3	6.5	-0.1	0.2	0.2	-0.2	0.3
Legal services.....	45	1	6.4	0.4	0.2	-0.2	0.3	0.6
Advertising agency services <sup>2</sup> .....	45	51	0.5	0.2	0.0	0.0	-0.1	0.0
Accounting services (partial).....	45	2	10.1	1.0	0.7	0.4	-0.3	2.0
Architectural and engineering services.....	45	3	3.3	0.0	0.7	0.2	0.2	0.3
Management, scientific, and technical consulting services.....	45	4	3.4	-2.2	2.5	0.2	1.1	-0.1
Staffing services.....	46	3	1.0	0.5	0.7	0.0	-0.3	0.2
Janitorial services <sup>2</sup> .....	49	1	2.1	0.1	0.9	0.1	0.0	-0.1
Commercial and industrial machinery and equipment repair and maintenance.....	55	1	8.4	1.1	1.9	-0.4	0.1	0.8
Machinery and equipment parts and supplies wholesaling <sup>2</sup> .....	57	1102	3.4	4.9	-2.7	2.8	-2.1	0.9
Building materials, paint, and hardware wholesaling.....	57	3	-8.9	-1.5	-1.6	-1.6	1.2	-0.7
Metals, minerals, and ores wholesaling <sup>2</sup> .....	57	4	-2.7	10.4	2.1	-9.8	-3.2	0.9
Chemicals and allied products wholesaling <sup>2</sup> .....	57	5	5.0	-3.2	1.6	0.4	0.1	2.4
Paper and plastics products wholesaling <sup>2</sup> .....	57	6	2.6	0.5	0.3	0.3	-0.4	-0.9
Food and alcohol wholesaling <sup>2</sup> .....	57	8	3.1	0.5	2.7	2.2	-2.3	0.6
Hardware and building materials and supplies retailing.....	58	D	-7.7	0.4	-2.6	0.2	4.6	5.6
Metal treatment services <sup>2</sup> .....	59	1	4.6	0.0	0.7	0.4	-0.2	0.7
Stage 3 intermediate demand.....	ID5	3	-6.9	-0.7	-0.2	-1.4	-0.2	-0.6
Stage 3 intermediate demand goods.....	ID5	9311	-15.4	-1.1	-1.2	-2.9	-0.1	-1.8
Slaughter cattle.....	01	31	29.4	4.1	8.0	-0.5	6.0	2.4
Slaughter hogs.....	01	32	-18.7	-3.3	-8.0	-4.9	12.2	8.5
Slaughter poultry.....	01	4	-21.6	1.3	-0.5	-0.7	-1.8	-7.2
Raw milk.....	01	6	-33.0	-3.3	-3.8	-5.9	-6.3	-1.5
Commercial electric power.....	05	42	5.7	-2.7	0.0	0.8	0.9	-0.6
Industrial electric power.....	05	43	6.1	-0.8	-1.6	2.2	1.2	-1.0
Gasoline.....	05	71	-24.5	-11.6	8.1	-13.6	3.2	-1.1
Jet fuel <sup>2</sup> .....	05	7203	-38.3	-6.1	-12.7	-11.6	1.5	3.0
No. 2 diesel fuel.....	05	7303	-45.2	-6.3	-3.6	-13.6	-5.4	-7.1
Finished lubricants <sup>2</sup> .....	05	76	5.3	0.1	-0.9	0.1	1.3	-0.4
Lubricating oil base stocks <sup>2</sup> .....	05	78	-38.4	-3.0	-2.0	-12.7	0.7	-3.0
Asphalt.....	05	8102	-36.5	3.3	9.7	4.6	-0.3	-5.4
Basic inorganic chemicals <sup>2</sup> .....	06	13	-4.7	-0.4	-1.6	-1.3	-1.2	-3.7
Basic organic chemicals.....	06	14	-19.4	-3.3	-0.3	-2.2	-1.8	-1.4
Paints and allied products <sup>2</sup> .....	06	2	1.8	0.5	0.1	0.5	0.0	-0.8

See footnotes at end of table.

**Table 2. Producer price index percentage changes for selected commodity groupings by Final Demand-Intermediate Demand category, seasonally adjusted — Continued**  
 [July 2023]

Grouping	Commodity code		Unadjusted 12-month percent change <sup>1</sup>	Seasonally adjusted 1-month percent change <sup>1</sup>				
	Group code	Item code		July 2022 to July 2023 <sup>P</sup>	Feb. to Mar.	Mar. to Apr. <sup>P</sup>	Apr. to May <sup>P</sup>	May to June <sup>P</sup>
Agricultural chemicals and chemical products.....	06	5	-22.2	-3.7	-4.5	-3.3	-3.5	-0.2
Plastic resins and materials.....	06	6	-14.9	0.2	2.3	-1.6	-2.4	-3.9
Synthetic rubber <sup>2</sup> .....	07	1102	-18.3	-1.2	1.2	-1.0	-2.8	-5.6
Unsupported plastic film, sheet, and other shapes <sup>2</sup> .....	07	22	-7.1	-1.5	0.1	-0.3	-1.9	-1.4
Paper <sup>2</sup> .....	09	13	2.2	-0.4	0.7	-0.6	-0.3	-0.2
Paperboard <sup>2</sup> .....	09	14	-4.5	-0.9	-0.9	-0.1	-0.3	-1.0
Converted paper and paperboard products <sup>2</sup> .....	09	15	2.9	-0.4	0.0	0.2	-0.4	-0.1
Commercial printing <sup>2</sup> .....	09	47	5.6	0.3	-0.3	0.3	0.0	0.0
Foundry and forge shop products <sup>2</sup> .....	10	15	-0.2	0.2	0.9	-0.3	-0.3	-1.1
Steel mill products <sup>2</sup> .....	10	17	-20.9	0.9	3.6	5.4	-0.4	-7.6
Nonferrous mill shapes <sup>2</sup> .....	10	25	-3.6	0.1	-1.1	-0.3	-1.1	-1.1
Nonferrous foundry shop products.....	10	28	3.9	-0.1	0.8	-0.2	-0.1	0.2
Metal containers <sup>2</sup> .....	10	3	-3.2	-0.3	0.2	0.3	-0.2	-1.3
Structural, architectural, and pre-engineered metal products.....	10	74	-5.8	0.5	0.4	-0.8	-1.6	-0.4
Bolts, nuts, screws, rivets, and washers <sup>2</sup> .....	10	81	7.8	0.3	0.4	0.8	0.6	0.8
Other miscellaneous metal products <sup>2</sup> .....	10	89	3.4	-0.3	0.1	-0.1	0.4	0.0
General purpose machinery and equipment.....	11	4	6.3	0.6	0.9	0.5	0.0	0.1
Electrical machinery and equipment.....	11	7	3.3	0.2	0.1	-0.2	0.4	0.5
Construction sand, gravel, and crushed stone.....	13	21	8.0	0.0	0.0	0.1	0.7	0.1
Cement.....	13	22	12.6	0.7	-1.3	1.1	-0.1	1.3
Motor vehicle parts <sup>2</sup> .....	14	12	1.9	0.2	0.2	0.2	-0.1	0.2
Aircraft and aircraft equipment.....	14	2	4.4	0.6	0.4	0.4	0.2	0.2
Stage 3 intermediate demand services.....	ID5	9312	2.2	-0.4	0.6	-0.1	-0.2	0.3
Rail transportation of freight and mail <sup>2</sup> .....	30	11	-1.7	-0.2	-0.2	-0.9	-0.4	-0.1
Courier, messenger, and U.S. postal services.....	30	16	4.6	-0.4	0.0	0.1	-0.1	1.6
Arrangement of freight and cargo <sup>2</sup> .....	31	31	-30.2	-6.4	-4.1	-2.0	3.2	-2.2
Freight forwarding <sup>2</sup> .....	31	3201	-1.6	-0.2	0.5	0.0	0.0	0.0
Warehousing, storage, and related services <sup>2</sup> .....	32	1	5.3	-0.3	0.0	-3.3	-1.2	1.3
Advertising space sales in periodicals, newspapers, directories, and mailing lists <sup>2</sup> .....	36	1	4.2	0.9	0.0	0.0	0.0	0.0
Wired telephone services <sup>2</sup> .....	37	1	4.2	0.2	0.8	0.5	-0.3	0.9
Bundled wired telecommunications access services <sup>2</sup> .....	37	5	5.5	1.3	0.0	-1.5	0.0	-0.5
Data processing and related services <sup>2</sup> .....	38	1	1.8	0.3	-0.1	0.1	0.3	0.3
Business loans (partial).....	39	11	55.7	-5.8	2.7	3.4	-2.2	-1.5
Deposit services (partial) <sup>2</sup> .....	39	2	22.4	3.0	0.6	0.1	5.6	-0.5
Securities brokerage, dealing, investment advice, and related services <sup>2</sup> .....	40	1	37.2	-0.3	-0.4	3.2	0.1	1.8
Insurance.....	41	11	3.9	0.2	0.3	0.2	0.9	-0.2
Nonresidential real estate rents <sup>2</sup> .....	43	11	3.8	-1.7	2.5	0.3	1.4	-1.1
Legal services.....	45	1	6.4	0.4	0.2	-0.2	0.3	0.6
Accounting services (partial).....	45	2	10.1	1.0	0.7	0.4	-0.3	2.0
Architectural and engineering services.....	45	3	3.3	0.0	0.7	0.2	0.2	0.3
Management, scientific, and technical consulting services.....	45	4	3.4	-2.2	2.5	0.2	1.1	-0.1
Advertising agency services <sup>2</sup> .....	45	51	0.5	0.2	0.0	0.0	-0.1	0.0
Staffing services.....	46	3	1.0	0.5	0.7	0.0	-0.3	0.2
Aircraft repair maintenance.....	55	4	4.8	0.7	0.4	0.2	0.2	0.6
Machinery and equipment parts and supplies wholesaling <sup>2</sup> .....	57	1102	3.4	4.9	-2.7	2.8	-2.1	0.9
Building materials, paint, and hardware wholesaling.....	57	3	-8.9	-1.5	-1.6	-1.6	1.2	-0.7
Metals, minerals, and ores wholesaling <sup>2</sup> .....	57	4	-2.7	10.4	2.1	-9.8	-3.2	0.9
Chemicals and allied products wholesaling <sup>2</sup> .....	57	5	5.0	-3.2	1.6	0.4	0.1	2.4
Paper and plastics products wholesaling <sup>2</sup> .....	57	6	2.6	0.5	0.3	0.3	-0.4	-0.9
Food wholesaling <sup>2</sup> .....	57	8101	2.4	0.7	3.1	2.5	-2.6	0.7
Metal treatment services <sup>2</sup> .....	59	1	4.6	0.0	0.7	0.4	-0.2	0.7
Stage 2 intermediate demand.....	ID5	2	-8.5	-2.5	0.9	-1.3	-1.1	1.4
Stage 2 intermediate demand goods.....	ID5	9211	-22.7	-4.9	1.2	-4.0	-2.4	3.3
Corn.....	01	2202	-22.1	-7.5	2.4	-6.0	3.4	-10.7
Oilseeds.....	01	83	-3.7	-4.2	0.5	-1.2	-6.9	9.0
Prepared animal feeds.....	02	9	-2.4	0.0	-1.4	-2.2	-0.8	2.2
Coal.....	05	1	-7.0	-4.0	1.7	-2.9	3.7	1.4
Natural gas <sup>2</sup> .....	05	31	-72.5	-25.5	-22.8	-2.0	-1.7	11.0
Liquefied petroleum gas <sup>2</sup> .....	05	32	-48.6	-11.4	-3.1	-17.2	-8.3	24.6
Crude petroleum <sup>2</sup> .....	05	61	-24.8	-7.1	11.2	-9.8	-4.3	8.4
No. 2 diesel fuel.....	05	7303	-45.2	-6.3	-3.6	-13.6	-5.4	-7.1
Industrial chemicals.....	06	1	-17.4	-2.8	-0.5	-2.0	-1.7	-1.8
Plastic resins and materials.....	06	6	-14.9	0.2	2.3	-1.6	-2.4	-3.9
Plastic products <sup>2</sup> .....	07	2	-3.1	-0.3	0.1	-0.2	-0.6	-0.4
Logs, bolts, timber, pulpwood, and wood chips <sup>2</sup> .....	08	5	-3.8	-1.1	-0.7	0.0	0.2	-0.5

See footnotes at end of table.

**Table 2. Producer price index percentage changes for selected commodity groupings by Final Demand-Intermediate Demand category, seasonally adjusted — Continued**  
 [July 2023]

Grouping	Commodity code		Unadjusted 12-month percent change <sup>1</sup>	Seasonally adjusted 1-month percent change <sup>1</sup>				
	Group code	Item code		July 2022 to July 2023 <sup>P</sup>	Feb. to Mar.	Mar. to Apr. <sup>P</sup>	Apr. to May <sup>P</sup>	May to June <sup>P</sup>
Paper <sup>2</sup> .....	09	13	2.2	-0.4	0.7	-0.6	-0.3	-0.2
Paperboard, excluding corrugated paperboard <sup>2</sup> .....	09	1411	-3.4	-0.1	-0.6	0.0	-0.7	-0.9
Commercial printing <sup>2</sup> .....	09	47	5.6	0.3	-0.3	0.3	0.0	0.0
Iron and steel scrap.....	10	12	-12.5	3.1	5.6	-6.2	-10.7	2.0
Steel mill products <sup>2</sup> .....	10	17	-20.9	0.9	3.6	5.4	-0.4	-7.6
Nonferrous mill shapes <sup>2</sup> .....	10	25	-3.6	0.1	-1.1	-0.3	-1.1	-1.1
Electrical machinery and equipment.....	11	7	3.3	0.2	0.1	-0.2	0.4	0.5
Electronic components and accessories.....	11	78	0.5	0.0	-0.4	-1.1	0.3	0.6
Stage 2 intermediate demand services.....	ID5	9212	6.2	-0.7	0.7	0.6	-0.2	0.0
Rail transportation of freight and mail <sup>2</sup> .....	30	11	-1.7	-0.2	-0.2	-0.9	-0.4	-0.1
Truck transportation of freight <sup>2</sup> .....	30	12	-12.4	-1.6	-3.0	-0.5	-0.7	-0.2
U.S. Postal Service <sup>2</sup> .....	30	1601	9.0	0.0	0.0	0.0	0.0	3.8
Courier and messenger services, except air.....	30	1602	3.8	-0.1	0.1	0.7	0.1	0.6
Air mail and package delivery services, excluding by USPS.....	30	1603	-1.6	-1.4	0.0	-0.8	-0.5	0.3
Pipeline transportation <sup>2</sup> .....	30	17	1.3	0.0	-1.1	0.2	-1.2	0.0
Airline passenger services.....	30	22	3.4	1.3	-3.1	-0.8	1.8	1.7
Arrangement of freight and cargo <sup>2</sup> .....	31	31	-30.2	-6.4	-4.1	-2.0	3.2	-2.2
Television advertising time sales.....	36	21	-16.8	-2.9	2.8	-0.9	-2.1	-1.0
Wireless telecommunication services.....	37	2	1.9	0.1	0.1	0.6	0.2	0.1
Data processing and related services <sup>2</sup> .....	38	1	1.8	0.3	-0.1	0.1	0.3	0.3
Securities brokerage, dealing, investment advice, and related services <sup>2</sup> .....	40	1	37.2	-0.3	-0.4	3.2	0.1	1.8
Portfolio management <sup>2</sup> .....	40	2	10.1	-3.9	4.0	-3.0	-0.4	7.6
Investment banking <sup>2</sup> .....	40	31	1.7	1.5	-0.8	1.4	-0.5	0.0
Insurance.....	41	11	3.9	0.2	0.3	0.2	0.9	-0.2
Commissions from sales of insurance <sup>2</sup> .....	42	11	0.4	0.0	0.0	0.0	0.0	-0.5
Legal services.....	45	1	6.4	0.4	0.2	-0.2	0.3	0.6
Accounting services (partial).....	45	2	10.1	1.0	0.7	0.4	-0.3	2.0
Management, scientific, and technical consulting services.....	45	4	3.4	-2.2	2.5	0.2	1.1	-0.1
Advertising agency services <sup>2</sup> .....	45	51	0.5	0.2	0.0	0.0	-0.1	0.0
Staffing services.....	46	3	1.0	0.5	0.7	0.0	-0.3	0.2
Security guard services <sup>2</sup> .....	48	1	7.2	0.3	0.1	2.1	0.1	0.2
Janitorial services <sup>2</sup> .....	49	1	2.1	0.1	0.9	0.1	0.0	-0.1
Traveler accommodation services.....	53	1	1.7	6.2	1.1	-2.9	2.2	-0.6
Commercial and industrial machinery and equipment repair and maintenance.....	55	1	8.4	1.1	1.9	-0.4	0.1	0.8
Hardware and building materials and supplies retailing.....	58	D	-7.7	0.4	-2.6	0.2	4.6	5.6
Stage 1 intermediate demand.....	ID5	1	-3.1	-0.4	-0.1	-0.9	-0.2	0.0
Stage 1 intermediate demand goods.....	ID5	9111	-9.1	-1.0	-0.7	-1.8	-0.7	-0.9
Prepared animal feeds.....	02	9	-2.4	0.0	-1.4	-2.2	-0.8	2.2
Commercial electric power.....	05	42	5.7	-2.7	0.0	0.8	0.9	-0.6
Industrial electric power.....	05	43	6.1	-0.8	-1.6	2.2	1.2	-1.0
Commercial natural gas.....	05	52	-19.4	-10.4	-5.9	-6.1	-2.4	3.7
Industrial natural gas.....	05	53	-18.6	-7.8	-6.9	-6.0	-2.5	10.2
Gasoline.....	05	71	-24.5	-11.6	8.1	-13.6	3.2	-1.1
No. 2 diesel fuel.....	05	7303	-45.2	-6.3	-3.6	-13.6	-5.4	-7.1
Industrial chemicals.....	06	1	-17.4	-2.8	-0.5	-2.0	-1.7	-1.8
Prepared paint <sup>2</sup> .....	06	21	0.9	-0.2	0.2	0.1	0.0	-0.2
Plastic construction products <sup>2</sup> .....	07	21	-4.7	0.1	-0.2	-0.7	-0.9	-0.1
Recyclable paper <sup>2</sup> .....	09	12	-56.5	-0.4	6.2	4.2	-1.0	2.7
Paper <sup>2</sup> .....	09	13	2.2	-0.4	0.7	-0.6	-0.3	-0.2
Converted paper and paperboard products <sup>2</sup> .....	09	15	2.9	-0.4	0.0	0.2	-0.4	-0.1
Iron and steel scrap.....	10	12	-12.5	3.1	5.6	-6.2	-10.7	2.0
Steel mill products <sup>2</sup> .....	10	17	-20.9	0.9	3.6	5.4	-0.4	-7.6
Primary nonferrous metals <sup>2</sup> .....	10	22	6.4	-5.2	0.9	3.0	-0.2	2.1
Nonferrous scrap.....	10	23	-8.2	-2.6	-0.4	2.1	-3.5	-2.7
Nonferrous wire and cable <sup>2</sup> .....	10	26	-0.4	-0.8	0.0	-1.8	-1.7	0.2
Fabricated structural metal products.....	10	7	-2.0	0.3	0.2	-0.5	-0.8	0.1
General purpose machinery and equipment.....	11	4	6.3	0.6	0.9	0.5	0.0	0.1
Construction sand, gravel, and crushed stone.....	13	21	8.0	0.0	0.0	0.1	0.7	0.1
Stage 1 intermediate demand services.....	ID5	9112	3.7	0.2	0.5	-0.1	0.2	0.8
Truck transportation of freight <sup>2</sup> .....	30	12	-12.4	-1.6	-3.0	-0.5	-0.7	-0.2
Airline passenger services.....	30	22	3.4	1.3	-3.1	-0.8	1.8	1.7
Advertising space sales in periodicals, newspapers, directories, and mailing lists <sup>2</sup> .....	36	1	4.2	0.9	0.0	0.0	0.0	0.0
Business wired telecommunication services <sup>2</sup> .....	37	12	3.6	0.1	0.7	0.0	-0.6	1.8
Wireless telecommunication services.....	37	2	1.9	0.1	0.1	0.6	0.2	0.1

See footnotes at end of table.

**Table 2. Producer price index percentage changes for selected commodity groupings by Final Demand-Intermediate Demand category, seasonally adjusted — Continued**  
 [July 2023]

Grouping	Commodity code		Unadjusted 12-month percent change <sup>1</sup>	Seasonally adjusted 1-month percent change <sup>1</sup>				
	Group code	Item code		July 2022 to July 2023 <sup>p</sup>	Feb. to Mar.	Mar. to Apr. <sup>p</sup>	Apr. to May <sup>p</sup>	May to June <sup>p</sup>
Bundled wired telecommunications access services <sup>2</sup> .....	37	5	5.5	1.3	0.0	-1.5	0.0	-0.5
Business loans (partial).....	39	11	55.7	-5.8	2.7	3.4	-2.2	-1.5
Deposit services (partial) <sup>2</sup> .....	39	2	22.4	3.0	0.6	0.1	5.6	-0.5
Securities brokerage, dealing, investment advice, and related services <sup>2</sup> .....	40	1	37.2	-0.3	-0.4	3.2	0.1	1.8
Portfolio management <sup>2</sup> .....	40	2	10.1	-3.9	4.0	-3.0	-0.4	7.6
Investment banking <sup>2</sup> .....	40	3	1.7	1.5	-0.8	1.4	-0.5	0.0
Insurance.....	41	11	3.9	0.2	0.3	0.2	0.9	-0.2
Nonresidential real estate rents <sup>2</sup> .....	43	11	3.8	-1.7	2.5	0.3	1.4	-1.1
Architectural and engineering services.....	45	3	3.3	0.0	0.7	0.2	0.2	0.3
Management consulting services.....	45	41	3.4	-2.2	2.5	0.2	1.1	-0.1
Waste collection.....	50	1	9.8	1.1	1.1	0.7	0.5	-0.1
Traveler accommodation services.....	53	11	1.7	6.2	1.1	-2.9	2.2	-0.6
Commercial and industrial machinery and equipment repair and maintenance.....	55	1	8.4	1.1	1.9	-0.4	0.1	0.8
Machinery and equipment parts and supplies wholesaling <sup>2</sup> .....	57	1102	3.4	4.9	-2.7	2.8	-2.1	0.9
Building materials, paint, and hardware wholesaling.....	57	3	-8.9	-1.5	-1.6	-1.6	1.2	-0.7
Metals, minerals, and ores wholesaling <sup>2</sup> .....	57	4	-2.7	10.4	2.1	-9.8	-3.2	0.9
Chemicals and allied products wholesaling <sup>2</sup> .....	57	5	5.0	-3.2	1.6	0.4	0.1	2.4
Paper and plastics products wholesaling <sup>2</sup> .....	57	6	2.6	0.5	0.3	0.3	-0.4	-0.9
Hardware and building materials and supplies retailing.....	58	D	-7.7	0.4	-2.6	0.2	4.6	5.6
Mining services <sup>2</sup> .....	60	1	4.7	1.1	-0.7	-0.5	-0.3	0.0

<sup>1</sup> All indexes are subject to revision for 4 months after their originally scheduled publication to incorporate late reports and corrections by survey respondents. In addition, seasonally adjusted indexes are subject to change for up to 5 years due to the recalculation of seasonal factors published each January.

<sup>2</sup> Seasonal tests did not indicate the presence of seasonality. Data shown is not seasonally adjusted.

<sup>3</sup> Trade indexes measure changes in margins received by wholesalers and retailers.

p Preliminary

"-" Data not available.

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

**Table 3. Producer price indexes for Final Demand-Intermediate Demand groupings, seasonally adjusted**  
 [July 2023, Index base Nov. 2009=100, unless otherwise indicated]

Grouping	Other index base	Commodity code		Seasonally adjusted index <sup>1</sup>				
		Group code	Item code	Mar. 2023	Apr. 2023 <sup>p</sup>	May 2023 <sup>p</sup>	June 2023 <sup>p</sup>	July 2023 <sup>p</sup>
<b>Final Demand</b>								
Final demand.....		FD	4	140.746	141.006	140.583	140.526	140.946
Final demand goods.....		FD	41	142.855	143.055	140.925	140.938	141.089
Final demand foods.....		FD	411	151.612	150.984	149.524	149.269	150.029
Finished consumer foods <sup>2</sup> .....	00/82	FD	4111	267.103	265.804	263.376	263.946	264.452
Finished consumer foods, crude.....	00/82	FD	411113	294.729	300.804	251.862	257.162	252.477
Finished consumer foods, processed.....	00/82	FD	41112	263.310	261.314	263.330	263.444	264.444
Government purchased foods.....		FD	4112	152.752	151.204	151.688	151.287	153.488
Foods for export.....		FD	4113	154.884	155.119	152.438	149.614	151.941
Final demand energy.....		FD	412	143.097	144.039	134.037	135.030	134.971
Finished consumer energy goods <sup>2</sup> .....	00/82	FD	4121	221.453	226.558	211.446	213.886	213.857
Government purchased energy.....		FD	4122	159.568	152.331	140.067	139.208	138.276
Energy for export.....		FD	4123	140.634	132.610	122.414	121.011	122.164
Final demand goods less foods and energy.....		FD	413	140.444	140.645	140.786	140.569	140.617
Finished goods less foods and energy <sup>2</sup> .....	00/82	FD	4131	246.025	246.165	246.952	247.102	247.734
Finished consumer goods less foods and energy.....	00/82	FD	41311	273.799	273.855	274.592	274.717	275.316
Nondurable consumer goods less foods and energy.....	00/82	FD	413111	354.201	354.630	355.846	356.159	357.070
Durable consumer goods.....	00/82	FD	413112	191.134	190.880	191.179	191.142	191.448
Private capital equipment.....	00/82	FD	41312	210.882	211.090	211.886	212.052	212.685
Private capital equipment for manufacturing industries.....	00/82	FD	413121	225.647	225.856	227.306	227.669	228.192
Private capital equipment for nonmanufacturing industries.....	00/82	FD	413122	206.463	206.670	207.272	207.381	208.046
Government purchased goods, excluding foods and energy.....		FD	4132	136.525	136.508	136.410	136.211	136.373
Government purchased goods excluding foods, energy, and capital equipment.....		FD	41321	146.359	146.279	145.967	145.493	145.392
Government purchased capital equipment.....		FD	41322	122.220	122.278	122.439	122.571	123.047
Goods for export, excluding foods and energy.....		FD	4133	137.696	138.170	137.852	137.112	136.582
Final demand services.....		FD	42	138.537	138.842	139.163	139.072	139.700
Final demand trade services <sup>3</sup> .....		FD	423	150.163	150.695	151.988	150.711	151.753
Trade of finished goods <sup>2</sup> .....		FD	4231	148.853	149.255	150.614	149.603	150.318
Trade of personal consumption goods.....		FD	42311	148.624	149.098	150.636	150.426	150.601
Trade of private capital equipment.....		FD	42312	148.175	148.254	148.805	144.269	147.359
Trade of government purchased goods.....		FD	4232	157.592	159.662	160.475	157.558	161.189
Trade of government purchased goods, excluding capital equipment.....		FD	42321	162.298	165.258	165.839	165.176	168.562
Trade of government purchased capital equipment.....		FD	42322	149.049	149.769	150.920	144.661	148.624
Trade of exports.....		FD	4233	159.665	160.827	161.669	158.492	161.660
Final demand transportation and warehousing services.....		FD	422	153.260	149.512	148.856	148.850	149.549
Transportation of passengers for final demand.....		FD	4221	139.935	135.680	134.630	137.040	139.319
Transportation of private passengers.....		FD	42211	139.928	135.681	134.633	137.038	139.312
Transportation of government passengers.....		FD	42212	139.668	135.459	134.421	136.802	139.057
Transportation of passengers for export.....		FD	42213	139.975	135.684	134.624	137.057	139.354
Transportation and warehousing of goods for final demand.....		FD	4222	157.617	154.087	153.589	152.633	152.704
Transportation and warehousing of finished goods <sup>2</sup> .....		FD	42221	156.036	152.276	151.748	150.768	150.828
Transportation and warehousing of personal consumption goods.....		FD	422211	156.420	152.721	152.202	151.238	151.361
Transportation and warehousing of private capital equipment.....		FD	422212	154.486	150.477	149.911	148.868	148.668
Transportation and warehousing of government purchased goods.....		FD	42222	155.921	152.857	152.112	151.052	151.504
Transportation and warehousing of exports.....		FD	42223	162.793	159.671	159.293	158.408	158.424
Final demand services less trade, transportation, and warehousing.....		FD	421	131.707	132.341	132.371	132.749	133.200
Finished services less trade, transportation, and warehousing <sup>2</sup> .....		FD	4211	132.056	132.653	132.625	133.003	133.413
Finished consumer services less trade, transportation, and warehousing.....		FD	42111	131.398	132.045	131.937	132.322	132.802
Private capital investment services less trade, transportation, and warehousing.....		FD	42112	138.298	138.501	139.101	139.436	139.300
Government purchased services less trade, transportation, and warehousing.....		FD	4212	122.564	123.305	123.379	123.773	124.496
Gov. purchased services less trade, transportation, and warehousing, excl. capital investment.....		FD	42121	123.073	123.898	123.944	124.340	125.178
Government purchased capital investment services less trade, transportation, and warehousing.....		FD	42122	109.370	108.895	109.356	109.697	108.763
Services for export less trade, transportation, and warehousing.....		FD	4213	137.926	138.972	139.808	140.165	140.897
Final demand construction.....		FD	43	176.774	176.463	176.704	176.730	174.391
Construction for private capital investment.....		FD	431	181.016	180.751	180.993	181.041	178.467
Construction for government.....		FD	432	168.856	168.449	168.686	168.668	166.813
<b>Final Demand Special Groupings</b>								
Final demand less exports.....	04/10	FD	49101	138.275	138.570	138.156	138.229	138.625
Final demand less government.....	04/10	FD	49102	138.753	139.077	138.726	138.685	139.091
Final demand less foods, food and nonalcoholic beverages for immediate consumption, and energy <sup>1</sup> .....	04/10	FD	49103	138.528	138.785	139.047	138.900	139.363
Final demand less foods and energy <sup>4</sup> .....	04/10	FD	49104	138.227	138.491	138.769	138.654	139.081
Final demand less foods and food and nonalcoholic beverages for immediate consumption <sup>4</sup> .....	04/10	FD	49105	138.398	138.699	138.287	138.214	138.642

See footnotes at end of table.

**Table 3. Producer price indexes for Final Demand-Intermediate Demand groupings, seasonally adjusted — Continued**

[July 2023, Index base Nov. 2009=100, unless otherwise indicated]

Grouping	Other index base	Commodity code		Seasonally adjusted index <sup>1</sup>				
		Group code	Item code	Mar. 2023	Apr. 2023 <sup>P</sup>	May 2023 <sup>P</sup>	June 2023 <sup>P</sup>	July 2023 <sup>P</sup>
Final demand less foods <sup>4</sup> .....	04/10	FD	49106	138.054	138.359	138.000	137.954	138.350
Final demand less energy.....	04/10	FD	49107	138.734	138.947	139.127	139.005	139.450
Final demand less trade services.....	01/10	FD	49108	136.930	137.127	136.334	136.545	136.824
Final demand less distributive services <sup>5</sup> .....	01/10	FD	49109	136.208	136.564	135.758	136.018	136.306
Final demand goods less energy.....	01/10	FD	49111	141.380	141.398	141.190	140.968	141.170
Final demand goods less foods.....	04/10	FD	49112	137.934	138.302	136.079	136.147	136.169
Final demand services less trade services.....	04/10	FD	49113	132.571	132.788	132.754	133.094	133.564
Final demand distributive services <sup>5</sup> .....	04/10	FD	49114	148.278	148.174	149.165	147.963	148.837
Final demand goods plus final demand distributive services <sup>5</sup> .....	04/10	FD	49115	143.037	143.108	142.302	141.811	142.260
Final demand less foods, energy, and trade services <sup>4</sup> .....	08/13	FD	49116	127.363	127.548	127.567	127.738	127.993
Private and government purchased capital equipment.....	08/13	FD	49117	127.121	127.237	127.674	127.780	128.176
Private and government purchased capital investment services.....	08/13	FD	49118	132.087	132.029	132.526	130.969	132.006
Total private and government purchased capital investment.....	08/13	FD	49119	133.433	133.409	133.844	133.110	133.490
Total finished <sup>2</sup> .....	01/10	FD	49201	139.182	139.563	139.225	139.329	139.717
Total finished less foods, food and nonalcoholic beverages for immediate consumption, and energy <sup>2, 4</sup> .....	12/10	FD	49202	137.841	138.094	138.428	138.424	138.842
Total finished less foods and energy <sup>2, 4</sup> .....	01/10	FD	49203	138.675	138.931	139.265	139.262	139.682
Total finished less foods and food and nonalcoholic beverages for immediate consumption <sup>2, 4</sup> .....	12/10	FD	49204	137.218	137.654	137.373	137.466	137.854
Total finished less foods <sup>2, 4</sup> .....	01/10	FD	49205	138.598	139.039	138.757	138.850	139.243
Total finished less energy <sup>2</sup> .....	01/10	FD	49206	139.301	139.503	139.743	139.758	140.171
Finished goods <sup>2</sup> .....	00/82	FD	49207	253.374	254.551	250.433	251.288	251.740
Finished goods less energy <sup>2</sup> .....	00/82	FD	49208	250.846	250.597	250.513	250.776	251.372
Finished goods, excluding foods <sup>2, 4</sup> .....	00/82	FD	49209	249.105	250.930	246.378	247.307	247.744
Finished services <sup>2</sup> .....	01/10	FD	49210	137.010	137.312	137.625	137.604	138.110
Private capital investment services.....	04/10	FD	49211	142.182	142.103	142.617	141.049	142.119
Finished distributive services <sup>2, 5</sup> .....	04/10	FD	49212	146.650	146.544	147.648	146.662	147.284
Finished services less trade services <sup>2</sup> .....	04/10	FD	49213	132.404	132.668	132.593	132.941	133.368
Finished services less distributive services <sup>2, 5</sup> .....	04/10	FD	49214	131.367	131.853	131.802	132.223	132.671
Total private capital investment (goods, services, and construction).....	04/10	FD	49215	141.352	141.332	141.810	141.023	141.480
Finished goods plus finished distributive services <sup>2</sup> .....	04/10	FD	49216	143.843	144.132	143.474	143.246	143.676
Total exports.....	04/10	FD	49301	139.813	139.817	139.381	138.487	139.018
Goods for export.....	00/82	FD	49302	234.565	234.493	232.543	230.830	230.662
Services for export.....	04/10	FD	49303	148.577	148.644	149.167	148.390	149.811
Total government purchases.....	04/10	FD	49401	136.244	135.713	134.542	134.311	134.808
Government purchased goods.....	00/82	FD	49402	234.376	231.052	225.927	225.289	225.473
Government purchased services.....	04/10	FD	49403	130.733	131.368	131.491	131.338	132.555
Total government purchased capital investment (goods, services, construction).....	08/13	FD	49404	131.475	131.414	131.734	131.075	131.081
Government purchases, defense.....	05/15	FD	49405	123.097	121.707	120.531	120.319	121.298
Government purchases, non-defense.....	05/15	FD	49406	130.691	130.652	129.592	129.373	129.613
Personal consumption.....	01/10	FD	49501	138.604	139.076	138.552	138.861	139.232
Personal consumption goods (finished consumer goods).....	00/82	FD	49502	271.397	272.997	266.727	267.882	268.254
Personal consumption goods less energy.....	00/82	FD	49503	271.471	270.933	270.286	270.606	271.166
Personal consumption goods less foods.....	00/82	FD	49504	271.314	274.137	266.275	267.676	267.988
Personal consumption nondurable goods less foods.....	00/82	FD	49508	306.359	310.558	299.049	301.092	301.406
Personal consumption services.....	04/10	FD	49505	135.698	136.057	136.338	136.557	136.973
Personal consumption less trade services.....	04/10	FD	49506	135.522	135.991	134.957	135.393	135.812
Personal consumption less distributive services <sup>5</sup> .....	04/10	FD	49507	135.002	135.620	134.565	135.051	135.481
Personal consumption less foods and energy.....	04/14	FD	49510	127.259	127.564	127.836	128.025	128.404
Personal consumption less foods, energy, and trade services <sup>3</sup> .....	04/14	FD	49511	124.270	124.534	124.460	124.765	125.210
Personal consumption less foods, energy, and distributive services <sup>5</sup> .....	04/14	FD	49512	123.951	124.377	124.320	124.678	125.139
Personal consumption goods plus personal consumption distributive services <sup>5</sup> .....	08/13	FD	49509	132.440	132.806	131.904	132.042	132.207
<b>Intermediate Demand by Commodity Type</b>								
<b>Processed goods</b>								
Processed goods for intermediate demand.....	00/82	ID6	1	260.873	259.517	255.585	254.351	252.927
Materials and components for manufacturing.....	00/82	ID6	11	236.066	236.753	236.378	234.805	232.423
Materials for manufacturing.....		ID6	111	147.967	148.369	148.041	146.497	144.090
Materials for food manufacturing.....	00/82	ID6	1111	254.891	252.103	247.306	243.277	245.284
Materials for nondurable manufacturing.....	00/82	ID6	1112	274.478	274.051	270.013	266.057	262.973
Materials for durable manufacturing.....	00/82	ID6	1113	281.451	285.259	290.746	289.757	280.658
Components for manufacturing.....	00/82	ID6	112	187.220	187.822	187.722	187.654	187.690
Components for nondurable manufacturing.....		ID6	1121	147.044	147.348	147.044	146.201	145.407
Components for durable manufacturing.....		ID6	1122	132.065	132.498	132.438	132.426	132.490
Materials and components for construction.....	00/82	ID6	12	350.455	350.868	350.798	350.537	350.937
Materials for construction.....		ID6	121	165.726	165.954	166.236	166.344	166.835
Components for construction.....		ID6	122	178.955	179.139	178.836	178.507	178.457
Processed fuels and lubricants for intermediate demand.....	00/82	ID6	13	259.396	251.771	234.191	232.940	230.832
Processed fuels and lubricants to manufacturing industries.....	00/82	ID6	131	268.138	255.099	243.599	243.934	241.111

See footnotes at end of table.



**Table 3. Producer price indexes for Final Demand-Intermediate Demand groupings, seasonally adjusted — Continued**

[July 2023, Index base Nov. 2009=100, unless otherwise indicated]

Grouping	Other index base	Commodity code		Seasonally adjusted index <sup>1</sup>				
		Group code	Item code	Mar. 2023	Apr. 2023 <sup>P</sup>	May 2023 <sup>P</sup>	June 2023 <sup>P</sup>	July 2023 <sup>P</sup>
Processed fuels and lubricants to nonmanufacturing industries.....	00/82	ID6	132	256.934	251.015	231.489	229.728	227.845
Containers for intermediate demand.....	00/82	ID6	14	311.117	310.531	311.583	310.079	308.517
Supplies for intermediate demand.....	00/82	ID6	15	252.994	252.360	251.449	250.716	251.267
Supplies to manufacturing industries.....	00/82	ID6	151	247.652	247.579	247.357	246.749	246.117
Supplies to nonmanufacturing industries.....	00/82	ID6	152	251.816	251.100	250.089	249.343	250.073
Supplies to nonmanufacturing industries, feeds.....	00/82	ID6	1521	244.932	241.303	234.384	232.515	239.626
Supplies to nonmanufacturing industries, other than feeds.....	00/82	ID6	1522	254.736	254.393	254.142	253.545	253.443
<b>Unprocessed goods</b>								
Unprocessed goods for intermediate demand.....	00/82	ID6	2	255.668	258.375	244.593	241.729	245.754
Unprocessed foodstuffs and feedstuffs.....	00/82	ID6	21	237.096	233.512	222.705	225.026	222.952
Unprocessed nonfood materials.....	00/82	ID6	22	258.015	265.197	249.848	243.323	251.625
Unprocessed nonfood materials except fuel.....	00/82	ID6	221	322.391	343.209	321.431	311.457	319.951
Unprocessed nonfood materials except fuel to manufacturing industries.....	00/82	ID6	2211	298.087	318.284	297.135	287.352	295.577
Unprocessed nonfood materials except fuel to nonmanufacturing industries.....	00/82	ID6	2212	345.979	346.354	346.462	348.739	349.246
Unprocessed fuel.....	00/82	ID6	222	123.973	105.030	102.567	102.876	110.418
Unprocessed fuel to manufacturing industries.....	00/82	ID6	2221	218.889	214.753	208.750	215.200	220.515
Unprocessed fuel to nonmanufacturing industries.....	00/82	ID6	2222	122.160	101.843	99.509	99.480	107.363
<b>Services</b>								
Services for intermediate demand.....		ID6	3	144.280	145.243	145.565	145.500	146.202
Trade services for intermediate demand <sup>5</sup> .....		ID6	33	170.298	171.652	171.486	170.393	172.588
Trade services for manufacturing industries.....	12/12	ID6	331	157.818	158.772	158.148	156.292	157.964
Trade services for nonmanufacturing industries.....	12/12	ID6	332	149.418	150.893	151.196	151.044	153.316
Transportation and warehousing services for intermediate demand.....		ID6	32	156.286	154.570	153.910	153.795	154.455
Transportation of passengers for intermediate demand.....		ID6	321	139.730	135.522	134.485	136.864	139.119
Transportation of passengers for manufacturing industries.....		ID6	3211	139.949	135.661	134.601	137.033	139.329
Transportation of passengers for nonmanufacturing industries.....		ID6	3212	139.765	135.567	134.532	136.905	139.156
Transportation and warehousing of goods for intermediate demand.....		ID6	322	158.159	156.672	156.046	155.697	156.209
Transportation and warehousing of goods for manufacturing industries.....	12/12	ID6	3221	132.000	129.772	129.636	128.671	128.454
Transportation and warehousing of goods for nonmanufacturing industries.....	12/12	ID6	3222	141.116	140.077	139.406	139.290	139.933
Services less trade, transportation, and warehousing for intermediate demand.....		ID6	31	135.119	136.481	137.084	137.252	137.634
Services less trade, transportation, and warehousing for manufacturing industries.....		ID6	311	127.121	127.797	127.978	127.842	128.279
Services less trade, transportation, and warehousing for nonmanufacturing industries.....		ID6	312	135.373	136.758	137.376	137.554	137.934
<b>Construction</b>								
Construction for intermediate demand.....		ID6	4	143.359	143.442	145.443	145.602	145.996
<b>Intermediate Demand by Commodity Type Special Groupings</b>								
Processed materials less foods and feeds.....	00/82	ID6	9111	262.043	260.836	256.958	255.879	253.980
Processed foods and feeds.....	00/82	ID6	9112	249.697	246.887	242.434	239.674	242.915
Processed energy goods.....	00/82	ID6	9113	260.600	252.940	235.278	234.016	231.900
Processed materials less energy.....	00/82	ID6	9118	257.812	258.041	257.573	256.361	255.128
Processed materials less foods and energy.....	00/82	ID6	9115	258.360	258.981	259.028	258.018	256.212
Intermediate distributive services <sup>6</sup> .....	04/10	ID6	9116	162.600	162.702	162.338	161.581	163.019
Processed goods plus intermediate distributive services.....	04/10	ID6	9117	147.417	146.906	145.248	144.554	144.379
Unprocessed materials less agricultural products.....	00/82	ID6	9211	258.405	266.017	250.456	242.595	254.468
Unprocessed energy materials <sup>7</sup> .....	00/82	ID6	9212	190.329	197.293	181.521	176.001	190.122
Unprocessed materials less energy.....	00/82	ID6	9213	292.375	291.625	280.455	279.965	275.057
Unprocessed nonfood materials less energy <sup>8</sup> .....	00/82	ID6	9216	456.898	464.997	453.039	443.764	430.140
<b>Intermediate Demand by Production Flow</b>								
<b>Stage 4 Intermediate Demand</b>								
Stage 4 intermediate demand.....		ID5	4	147.427	147.845	147.680	147.594	148.049
Inputs to stage 4 goods producers.....		ID5	41	146.628	146.514	146.512	145.914	145.643
Goods.....		ID5	411	140.343	140.268	140.019	139.829	139.111
Foods.....		ID5	4111	152.739	152.295	149.069	148.481	146.503
Energy.....		ID5	4112	178.345	152.748	136.881	142.480	143.450
Goods excluding foods and energy.....		ID5	4113	138.202	138.420	138.771	138.588	138.047
Services.....		ID5	412	167.547	167.301	168.123	166.170	167.387
Trade services.....		ID5	4123	179.709	179.266	180.485	177.619	179.148
Transportation and warehousing services.....		ID5	4122	137.879	135.789	134.918	134.686	135.131
Transportation of passengers.....		ID5	41221	139.974	135.683	134.623	137.056	139.353
Transportation and warehousing of goods.....		ID5	41222	146.598	144.801	143.909	143.140	143.249
Services less trade, transportation, and warehousing.....		ID5	4121	128.287	129.197	129.351	129.626	130.091
Inputs to stage 4 services producers.....		ID5	42	143.724	144.416	144.515	144.655	145.552

See footnotes at end of table.

**Table 3. Producer price indexes for Final Demand-Intermediate Demand groupings, seasonally adjusted — Continued**

[July 2023, Index base Nov. 2009=100, unless otherwise indicated]

Grouping	Other index base	Commodity code		Seasonally adjusted index <sup>1</sup>				
		Group code	Item code	Mar. 2023	Apr. 2023 <sup>P</sup>	May 2023 <sup>P</sup>	June 2023 <sup>P</sup>	July 2023 <sup>P</sup>
Goods.....		ID5	421	146.743	145.708	144.672	144.783	144.786
Foods.....		ID5	4211	148.616	146.589	145.892	145.445	147.337
Energy.....		ID5	4212	142.989	140.943	138.159	138.728	137.677
Goods excluding foods and energy.....		ID5	4213	147.492	147.363	147.252	147.256	147.298
Services.....		ID5	422	142.503	143.769	144.244	144.393	145.589
Trade services.....		ID5	4223	159.084	160.188	161.082	159.999	162.092
Transportation and warehousing services.....		ID5	4222	151.678	150.501	148.860	148.788	150.799
Transportation of passengers.....		ID5	42221	139.412	135.162	134.113	136.521	138.797
Transportation and warehousing of goods.....		ID5	42222	154.396	153.735	151.986	151.494	153.468
Services less trade, transportation, and warehousing.....		ID5	4221	138.754	140.284	140.931	141.234	142.240
Construction.....		ID5	423	143.359	143.442	145.443	145.602	145.996
Inputs to stage 4 construction producers.....		ID5	43	162.143	162.602	160.967	161.093	161.321
Goods.....		ID5	431	166.342	166.918	165.289	165.461	165.317
Energy.....		ID5	4312	156.959	161.512	142.071	144.110	141.039
Goods excluding foods and energy.....		ID5	4313	171.097	171.286	171.412	171.408	171.557
Services.....		ID5	432	151.333	151.501	149.852	149.861	151.004
Trade services.....		ID5	4323	170.428	171.499	167.222	167.489	169.921
Transportation and warehousing services.....		ID5	4322	150.844	147.174	146.345	145.473	145.397
Transportation of passengers.....		ID5	43221	145.900	141.435	140.332	142.863	145.254
Transportation and warehousing of goods.....		ID5	43222	151.764	148.093	147.267	146.308	146.172
Services less trade, transportation, and warehousing.....		ID5	4321	129.849	130.709	131.002	131.134	131.589
<b>Stage 3 Intermediate Demand</b>								
Stage 3 intermediate demand.....		ID5	3	147.884	147.568	145.533	145.296	144.392
Inputs to stage 3 goods producers.....		ID5	31	159.747	159.005	156.208	156.025	153.772
Goods.....		ID5	311	155.633	154.688	151.767	151.816	148.831
Foods.....		ID5	3111	175.454	171.522	161.983	164.264	160.662
Energy.....		ID5	3112	153.086	142.369	132.322	133.032	130.376
Goods excluding foods and energy.....		ID5	3113	151.674	152.552	152.798	151.882	149.062
Services.....		ID5	312	164.870	164.955	162.823	161.753	162.449
Trade services.....		ID5	3123	172.743	174.550	170.626	169.098	170.270
Transportation and warehousing services.....		ID5	3122	152.377	149.178	148.833	148.022	147.962
Transportation of passengers.....		ID5	31221	149.030	144.464	143.336	145.925	148.370
Transportation and warehousing of goods.....		ID5	31222	152.347	149.228	148.927	147.928	147.729
Services less trade, transportation, and warehousing.....		ID5	3121	132.131	133.034	133.390	133.464	133.925
Inputs to stage 3 services producers.....		ID5	32	138.102	138.107	136.607	136.310	136.340
Goods.....		ID5	321	132.366	128.099	119.563	118.592	117.184
Foods.....		ID5	3211	161.091	156.890	157.528	155.281	155.318
Energy.....		ID5	3212	135.980	129.087	115.272	113.838	111.567
Goods excluding foods and energy.....		ID5	3213	136.424	136.259	135.797	135.560	135.473
Services.....		ID5	322	139.456	140.584	140.892	140.765	141.170
Trade services.....		ID5	3223	188.834	193.261	191.723	192.511	196.598
Transportation and warehousing services.....		ID5	3222	161.417	160.723	160.089	160.392	161.006
Transportation of passengers.....		ID5	32221	104.633	104.361	104.378	104.285	104.503
Transportation and warehousing of goods.....		ID5	32222	161.913	161.216	160.579	160.883	161.500
Services less trade, transportation, and warehousing.....		ID5	3221	130.950	132.384	133.062	132.762	132.888
Construction.....		ID5	323	143.359	143.442	145.443	145.602	145.996
Inputs to stage 3 construction producers.....		ID5	33	138.196	137.394	136.885	138.127	139.843
Goods.....		ID5	331	134.383	134.117	133.986	134.072	134.267
Goods excluding foods and energy.....		ID5	3313	171.236	170.897	170.730	170.839	171.088
Services.....		ID5	332	161.056	159.508	158.480	161.268	165.012
Trade services.....		ID5	3323	165.369	163.604	162.409	165.573	169.696
Transportation and warehousing services.....		ID5	3322	113.857	113.767	114.233	113.340	113.587
Transportation and warehousing of goods.....		ID5	33222	120.181	120.086	120.578	119.635	119.895
Services less trade, transportation, and warehousing.....		ID5	3321	124.300	124.836	125.216	125.008	125.578
<b>Stage 2 Intermediate Demand</b>								
Stage 2 intermediate demand.....		ID5	2	134.177	135.419	133.594	132.096	133.889
Inputs to stage 2 goods producers.....		ID5	21	122.727	124.295	120.532	117.962	121.266
Goods.....		ID5	211	118.754	120.482	115.110	112.062	116.317
Foods.....		ID5	2111	164.783	164.167	160.098	154.935	161.855
Energy.....		ID5	2112	84.973	87.661	80.174	77.491	84.245
Goods excluding foods and energy.....		ID5	2113	147.423	147.762	146.637	143.966	142.407
Services.....		ID5	212	147.915	149.137	150.214	148.919	149.455
Trade services.....		ID5	2123	163.815	167.223	169.237	166.797	168.804
Transportation and warehousing services.....		ID5	2122	167.658	166.399	166.771	165.565	165.008
Transportation of passengers.....		ID5	21221	140.194	136.079	135.068	137.385	139.593
Transportation and warehousing of goods.....		ID5	21222	169.310	168.187	168.627	167.248	166.555
Services less trade, transportation, and warehousing.....		ID5	2121	134.840	136.201	137.079	136.811	136.806
Construction.....		ID5	213	143.359	143.442	145.443	145.602	145.996

See footnotes at end of table.



**Table 3. Producer price indexes for Final Demand-Intermediate Demand groupings, seasonally adjusted — Continued**

[July 2023, Index base Nov. 2009=100, unless otherwise indicated]

Grouping	Other index base	Commodity code		Seasonally adjusted index <sup>1</sup>				
		Group code	Item code	Mar. 2023	Apr. 2023 <sup>P</sup>	May 2023 <sup>P</sup>	June 2023 <sup>P</sup>	July 2023 <sup>P</sup>
Inputs to stage 2 services producers.....		ID5	22	143.690	144.487	145.119	145.012	144.861
Goods.....		ID5	221	146.220	145.795	144.292	143.836	143.649
Foods.....		ID5	2211	122.376	121.361	117.895	115.701	115.350
Energy.....		ID5	2212	167.718	162.939	143.514	141.755	141.517
Goods excluding foods and energy.....		ID5	2213	145.438	145.307	145.006	144.660	144.478
Services.....		ID5	222	142.968	143.929	144.792	144.722	144.563
Trade services.....		ID5	2223	176.430	177.488	183.964	182.263	180.696
Transportation and warehousing services.....		ID5	2222	148.160	145.565	144.527	146.374	145.359
Transportation of passengers.....		ID5	22221	140.380	136.107	135.052	137.472	139.761
Transportation and warehousing of goods.....		ID5	22222	150.176	147.879	146.840	148.588	146.962
Services less trade, transportation, and warehousing.....		ID5	2221	141.874	143.099	143.847	143.709	143.679
Construction.....		ID5	223	143.359	143.442	145.443	145.602	145.996
<b>Stage 1 Intermediate Demand</b>								
Stage 1 intermediate demand.....		ID5	1	145.738	145.562	144.189	143.908	143.840
Inputs to stage 1 goods producers.....		ID5	11	147.996	147.382	145.306	144.249	143.351
Goods.....		ID5	111	147.067	145.838	143.639	142.428	140.623
Foods.....		ID5	1111	161.532	160.252	155.226	154.596	150.600
Energy.....		ID5	1112	140.140	129.972	120.241	120.290	121.207
Goods excluding foods and energy.....		ID5	1113	150.049	150.951	150.992	149.348	147.212
Services.....		ID5	112	154.430	155.574	153.799	153.133	154.784
Trade services.....		ID5	1123	170.525	172.282	168.993	167.708	169.698
Transportation and warehousing services.....		ID5	1122	155.183	154.271	157.327	155.877	156.941
Transportation of passengers.....		ID5	11221	139.947	135.657	134.597	137.030	139.327
Transportation and warehousing of goods.....		ID5	11222	157.190	157.127	161.172	158.770	159.515
Services less trade, transportation, and warehousing.....		ID5	1121	108.988	109.494	109.156	109.483	110.524
Construction.....		ID5	113	143.359	143.442	145.443	145.602	145.996
Inputs to stage 1 services producers.....		ID5	12	143.395	143.639	142.758	142.874	143.235
Goods.....		ID5	121	147.771	146.763	143.139	142.326	141.238
Foods.....		ID5	1211	199.016	205.085	150.556	131.277	131.143
Energy.....		ID5	1212	161.705	157.480	146.409	144.279	140.724
Goods excluding foods and energy.....		ID5	1213	148.948	149.355	149.398	149.294	149.311
Services.....		ID5	122	140.893	141.663	141.940	142.448	143.417
Trade services.....		ID5	1223	170.094	171.456	171.763	171.534	173.848
Transportation and warehousing services.....		ID5	1222	144.307	142.111	141.593	142.130	144.164
Transportation of passengers.....		ID5	12221	139.863	135.576	134.517	136.948	139.243
Transportation and warehousing of goods.....		ID5	12222	162.075	160.746	160.458	160.053	162.165
Services less trade, transportation, and warehousing.....		ID5	1221	135.899	137.022	137.407	137.977	138.651
Construction.....		ID5	123	143.359	143.442	145.443	145.602	145.996
Inputs to stage 1 construction producers.....		ID5	13	161.863	160.937	159.114	159.159	159.426
Goods.....		ID5	131	164.418	163.726	161.759	161.271	160.581
Energy.....		ID5	1312	152.442	143.945	125.303	121.092	114.604
Goods excluding foods and energy.....		ID5	1313	168.544	168.783	168.798	168.755	168.758
Services.....		ID5	132	156.626	155.123	153.640	154.993	157.597
Trade services.....		ID5	1323	163.587	162.820	160.902	163.142	166.789
Transportation and warehousing services.....		ID5	1322	125.306	121.780	121.404	120.513	120.349
Transportation and warehousing of goods.....		ID5	13222	129.613	125.965	125.576	124.656	124.486
Services less trade, transportation, and warehousing.....		ID5	1321	136.449	137.832	137.736	137.678	138.438
<b>Intermediate Demand by Production Flow Special Groupings</b>								
Total goods inputs to stage 4 intermediate demand.....	04/10	ID5	9411	144.413	144.187	143.435	143.410	143.035
Total services inputs to stage 4 intermediate demand.....	04/10	ID5	9412	146.527	147.512	147.875	147.735	148.929
Total construction inputs to stage 4 intermediate demand.....	04/10	ID5	9413	142.171	142.254	144.238	144.395	144.787
Total foods inputs to stage 4 intermediate demand.....	04/10	ID5	9414	147.658	146.558	144.466	143.950	143.642
Total energy goods inputs to stage 4 intermediate demand.....	04/10	ID5	9415	134.351	132.702	127.308	128.201	127.005
Total goods less foods and energy inputs to stage 4 intermediate demand.....	04/10	ID5	9416	146.527	146.665	146.865	146.764	146.510
Total goods inputs to stage 3 intermediate demand.....	04/10	ID5	9311	142.128	140.429	136.319	136.119	133.703
Total services inputs to stage 3 intermediate demand.....	04/10	ID5	9312	142.767	143.692	143.588	143.333	143.814
Total construction inputs to stage 3 intermediate demand.....	04/10	ID5	9313	142.171	142.254	144.238	144.395	144.787
Total foods inputs to stage 3 intermediate demand.....	04/10	ID5	9314	156.054	152.552	144.140	146.135	142.957
Total energy goods inputs to stage 3 intermediate demand.....	04/10	ID5	9315	135.915	128.587	115.596	114.508	112.223
Total goods less foods and energy inputs to stage 3 intermediate demand.....	04/10	ID5	9316	143.277	143.938	144.059	143.303	141.070
Total goods inputs to stage 2 intermediate demand.....	04/10	ID5	9211	115.749	117.180	112.452	109.806	113.418
Total services inputs to stage 2 intermediate demand.....	04/10	ID5	9212	144.613	145.638	146.555	146.194	146.199
Total construction inputs to stage 2 intermediate demand.....	04/10	ID5	9213	142.171	142.254	144.238	144.395	144.787
Total foods inputs to stage 2 intermediate demand.....	04/10	ID5	9214	165.207	164.580	160.493	155.344	162.191
Total energy goods inputs to stage 2 intermediate demand.....	04/10	ID5	9215	84.121	86.669	79.206	76.589	83.124
Total goods less foods and energy inputs to stage 2 intermediate demand.....	04/10	ID5	9216	138.574	138.790	137.910	135.904	134.737
Total goods inputs to stage 1 intermediate demand.....	04/10	ID5	9111	133.482	132.536	130.193	129.344	128.121

See footnotes at end of table.

**Table 3. Producer price indexes for Final Demand-Intermediate Demand groupings, seasonally adjusted — Continued**

[July 2023, Index base Nov. 2009=100, unless otherwise indicated]

Grouping	Other index base	Commodity code		Seasonally adjusted index <sup>1</sup>				
		Group code	Item code	Mar. 2023	Apr. 2023 <sup>p</sup>	May 2023 <sup>p</sup>	June 2023 <sup>p</sup>	July 2023 <sup>p</sup>
Total services inputs to stage 1 intermediate demand.....	04/10	ID5	9112	143.508	144.190	144.000	144.356	145.545
Total construction inputs to stage 1 intermediate demand.....	04/10	ID5	9117	142.171	142.254	144.238	144.395	144.787
Total foods inputs to stage 1 intermediate demand.....	04/10	ID5	9114	152.779	151.747	145.871	144.846	141.178
Total energy goods inputs to stage 1 intermediate demand.....	04/10	ID5	9115	146.826	140.039	129.240	127.869	125.956
Total goods less foods and energy inputs to stage 1 intermediate demand.....	04/10	ID5	9116	127.271	127.779	127.809	127.112	126.256

<sup>1</sup> All indexes are subject to revision for 4 months after their originally scheduled publication to incorporate late reports and corrections by survey respondents. In addition, seasonally adjusted indexes are subject to change for up to 5 years due to the recalculation of seasonal factors published each January.

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

<sup>3</sup> Trade indexes measure changes in margins received by wholesalers and retailers.

<sup>4</sup> 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.

<sup>5</sup> Distributive services include transportation, warehousing, and trade of goods.

<sup>6</sup> Includes intermediate trade, transportation, and warehousing services.

<sup>7</sup> Includes crude petroleum.

<sup>8</sup> Excludes crude petroleum.

p Preliminary

“-” Data not available.