

# Business Price Indexes: June 2015 quarter

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## Key facts

### Business prices compared with March 2015 quarter:

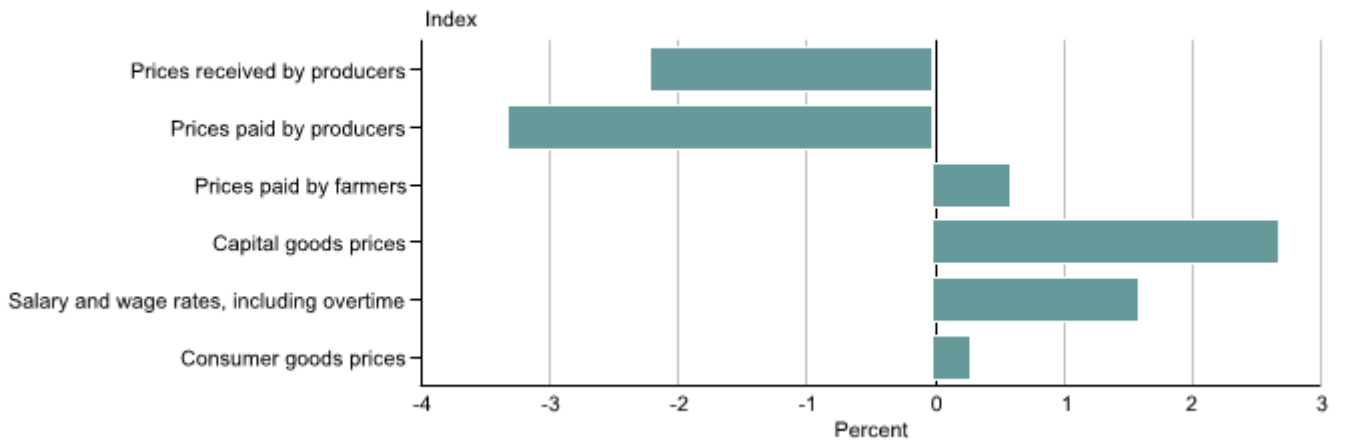
- The output producers price index (PPI) fell 0.2 percent.
- The input PPI (prices paid by producers) fell 0.3 percent.
- Both PPIs were mainly influenced by lower prices for milk and electricity generation.
- The farm expenses price index (FEPI) rose 0.4 percent.
- The capital goods price index (CGPI) rose 0.6 percent.

Price indexes: June 2015 quarter	Quarterly change	Annual change
Prices received by producers (output PPI)	-0.2	-2.2
Prices paid by producers (input PPI)	-0.3	-3.3
Prices paid by farmers (FEPI)	0.4	0.6
Capital goods prices (CGPI)	0.6	2.7
Salary and wage rates, including overtime (LCI)	0.5	1.6
Prices paid by consumers (CPI)	0.4	0.3

Price indexes: March 2015 quarter	Quarterly change	Annual change
Export prices for goods (overseas trade index)	-3.7 P	-11.8 P
Import prices for goods (overseas trade index)	-5.1 P	-6.8 P
Symbol: P provisional		



Business price indexes – annual change  
June 2015 quarter



Source: Statistics New Zealand

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## Commentary

- Lower farm-gate milk and electricity prices key to fall in producer prices
- Higher prices for building new houses
- Other June quarter changes
- Exchange rates
- Action from PPI review

Lower producer prices in the June 2015 quarter contributed to weak inflation pressures in the economy. By comparison, higher fuel prices influenced rises in consumer prices and farm input prices. Capital goods prices and wage rates also rose.

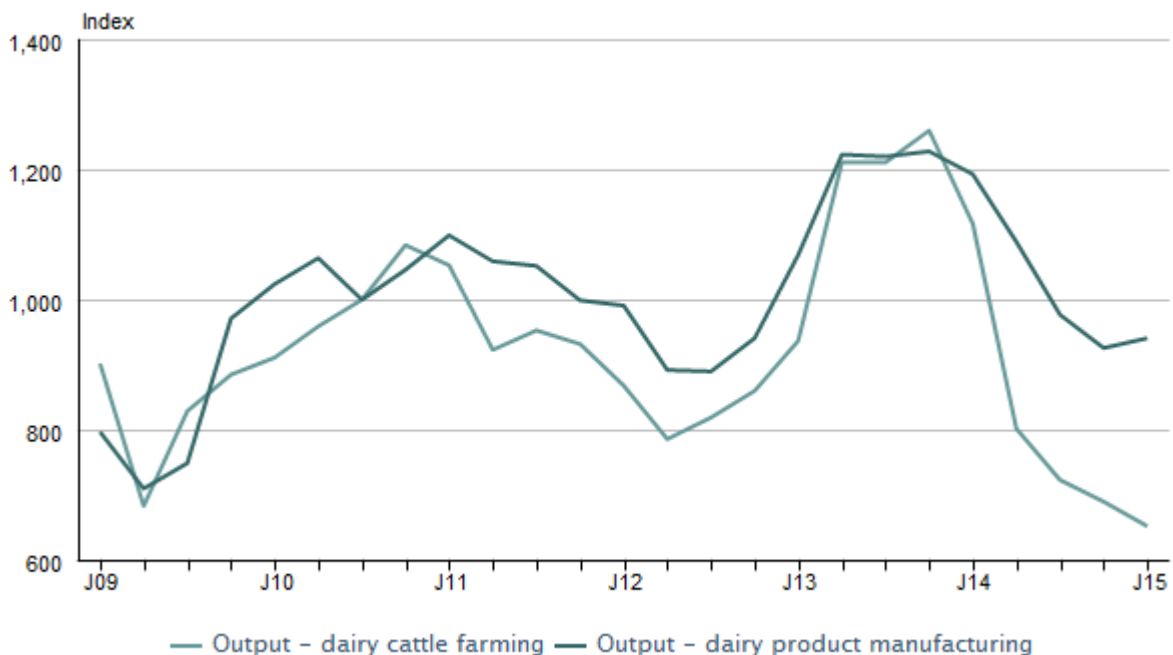
### Lower farm-gate milk and electricity prices key to fall in producer prices

Producer prices fell in the June 2015 quarter – the output PPI was down 0.2 percent, and the input PPI was down 0.3 percent.

Prices fell for dairy cattle farming outputs (down 5.5 percent) and dairy product manufacturing inputs (down 4.2 percent), due to lower farm-gate milk prices. Some offsetting effect on the output PPI came from higher prices received by dairy product manufacturers (up 1.6 percent), helped by a weaker NZ dollar.

Prices for dairy product exports can be set by contracts formed before the goods leave the country. So producer price index movements may lag behind international prices. The global dairy trade index (traded in US dollars), has fallen since March and had significant falls in July and the first half of August, before regaining some ground in mid-August.

**Producers price index – quarterly**  
Output – dairy cattle farming and output – dairy product manufacturing, Base: December 2010 quarter (=1000)

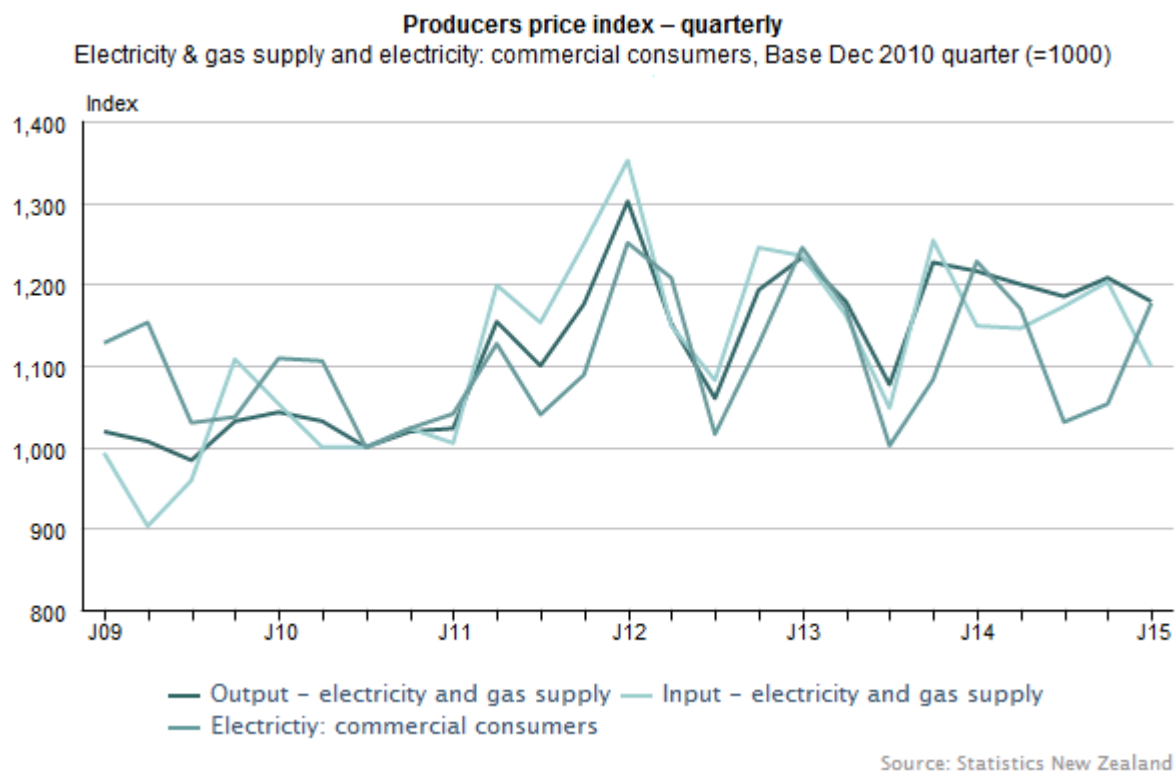


Source: Statistics New Zealand

The output and input prices for electricity and gas supply fell (outputs down 2.4 percent, and inputs down 8.6 percent) in the latest quarter. The falls were influenced by lower prices for electricity generation, mainly due to higher lake levels and to lower wholesale electricity spot prices.

Electricity prices for commercial consumers rose 12 percent in the June 2015 quarter. Previous June quarters had similar increases, reflecting higher seasonal demand in the winter months. Residential electricity prices rose (up 0.6 percent) in the latest quarter. In the year to the June 2015 quarter, electricity for commercial consumers fell 4.2 percent, whilst residential electricity prices remained flat.

Farmers' input costs, measured by the farm expenses price index, rose 0.4 percent in the June 2015 quarter, after a 0.5 percent fall in the March 2015 quarter. Higher retail electricity and fuel (both diesel and petrol) prices increased the costs to all farm types.



## Higher prices for building new houses

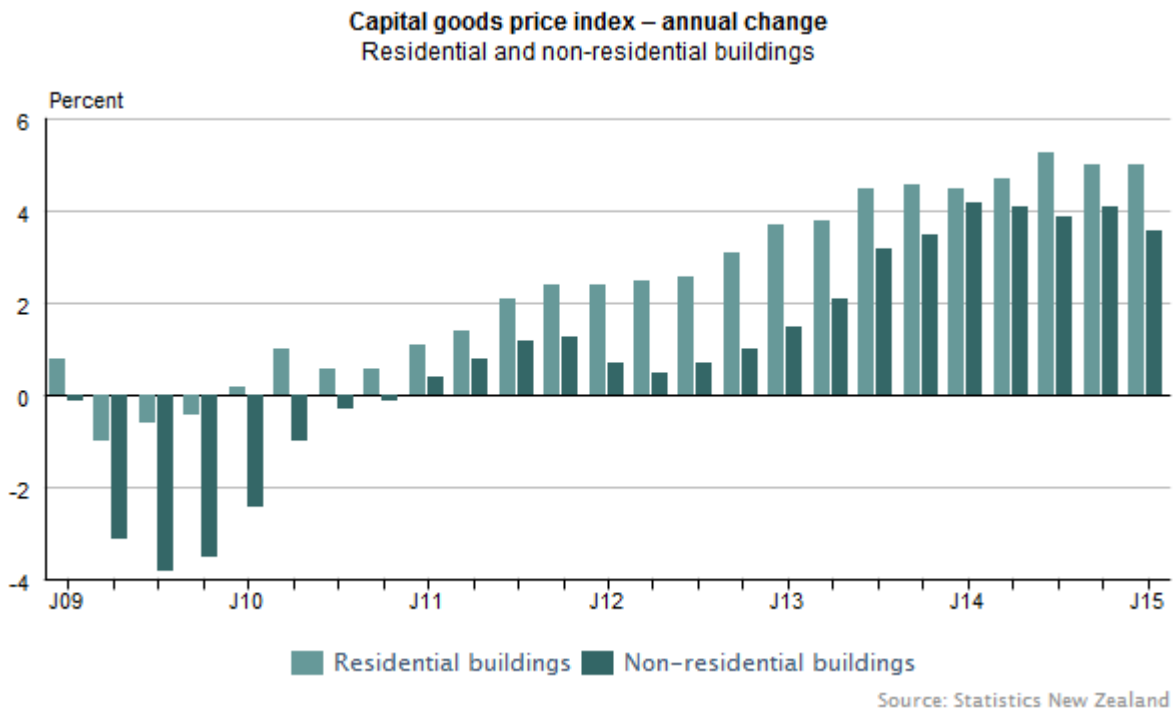
Producers in the construction industry received higher prices in the June 2015 quarter (up 0.5 percent), mainly due to higher prices for building new houses. The prices paid by producers in the construction industry also rose (up 0.7 percent), mainly reflecting higher input prices in building construction and construction trade services.

In the June 2015 quarter, prices for purchasing capital goods, measured by the capital goods price index (CGPI), rose 0.6 percent. This was largely influenced by the price of constructing residential buildings (up 1.3 percent), mainly new houses. The price of purchasing newly built houses, excluding land, in the consumers price index (CPI) increased 1.5 percent in the June 2015 quarter. In the year to the June 2015 quarter, newly built house prices in the CPI increased

5.3 percent, while for Auckland the increase was 7.6 percent, and for Canterbury it was 4.0 percent.

Non-residential building prices were up 0.6 percent in the June 2015 quarter, reflecting increased labour costs, and higher imported material prices.

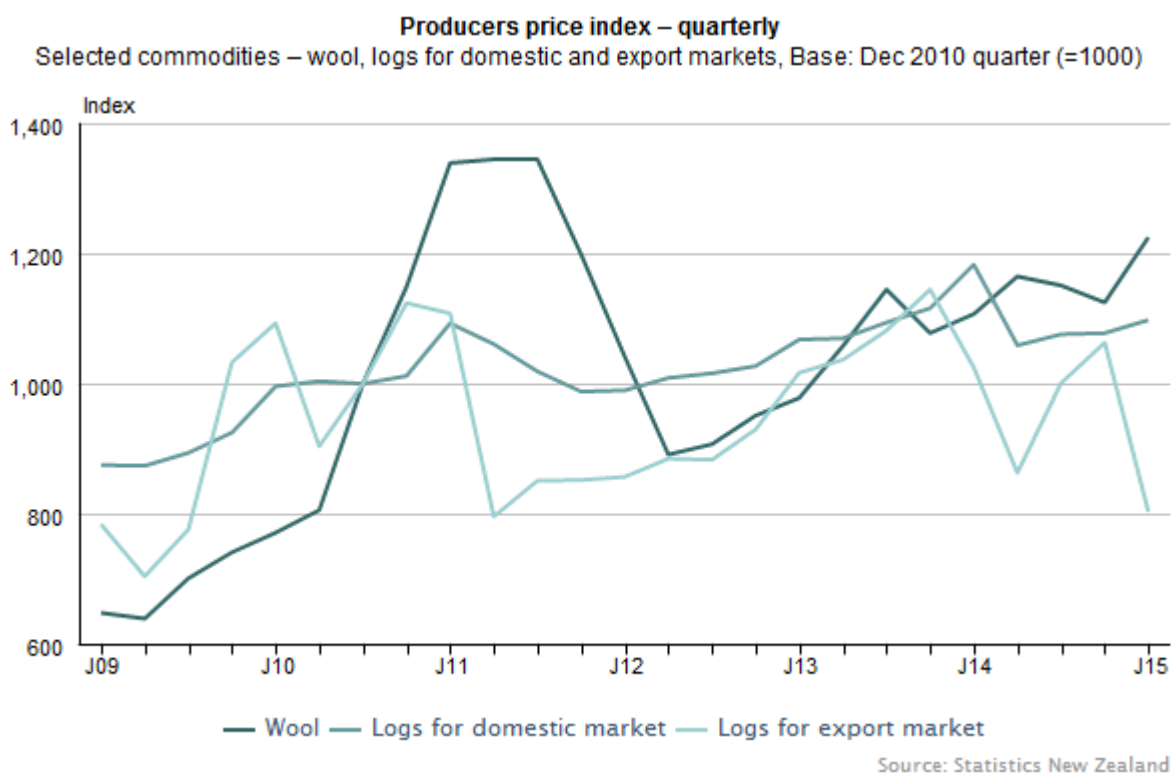
In the year to the June 2015 quarter, the overall CGPI rose 2.7 percent while residential and non-residential building prices rose 5.0 percent and 3.6 percent, respectively.



## Other June quarter changes

Commodity prices for the export of logs fell 25 percent in the latest quarter, influenced by lower export demand and oversupply in overseas markets. This is the largest fall since the September 2011 quarter (down 28 percent). In contrast, prices for domestic logs rose 1.9 percent, due to higher domestic demand. The prices received by producers in the forestry and logging industry fell 7.4 percent, affected by lower export demand. In contrast, the prices they paid rose 0.5 percent, influenced by higher domestic log prices and higher prices for diesel.

Wool prices rose 8.9 percent in the June 2015 quarter, after two consecutive quarterly falls. The increase in wool prices was influenced by strong demand at the wool auctions and the weaker New Zealand dollar.



Wage inflation remains above consumer price inflation. The salary and wage rates that employers pay to have the same job done to the same standard (labour cost index salary and wage rates) increased 0.5 percent in the June 2015 quarter and 1.6 percent in the year to the June 2015 quarter. This compares with consumer price annual inflation of 0.3 percent. The CPI excluding vehicle fuel, increased 0.7 percent in the year to the June 2015 quarter.

## Exchange rates

The New Zealand dollar (NZ dollar) depreciated against the Australian dollar and the UK pound and appreciated against the other three key currencies (the US dollar, Japanese yen, and the euro), when comparing the mid-point in the March and June 2015 quarters. A depreciating NZ dollar has an upward influence on the prices New Zealand producers pay for imported goods and services, and the prices received for exports.

When calculating the PPI and CGPI, we generally use prices collected on the 15th day of the middle month in the quarter to represent the entire quarter. When these prices are collected in foreign currencies, they are converted to NZ dollars using the exchange rate at the mid-point of the quarter.

The table below shows changes in the value of the NZ dollar in foreign currency denominations, from the mid-point of the March 2015 quarter to the mid-point of the June 2015 quarter.

<b>Exchange rates</b>					
Bank selling rates for NZ\$1.00					
	USA (NZ\$:US\$)	UK (NZ\$:pound)	Australia (NZ\$:AUS\$)	Japan (NZ\$:yen)	Europe (NZ\$:euro)
15 February 2015	0.7329	0.4766	0.9448	87.1330	0.6429
15 May 2015	0.7377	0.4683	0.9141	87.9647	0.6463

Percentage change	0.7	-1.7	-3.2	1.0	0.5
Source: Westpac Banking Corporation					

For a limited number of prices (eg dairy product manufacturing) we use quarterly average prices. For these prices, the relevant exchange rate movements are based on the average exchange rate for the quarter. For example, for the June 2015 quarter, there was a 0.7 percent appreciation of the NZ dollar against the US dollar based on mid-point exchange rates, and a 2.6 percent depreciation using quarterly average exchange rates.

## Action from PPI review

As part of a recent review of the scope and purpose of the PPI we made several decisions, one of which was to publish an expanded range of commodity indexes. We are in the process of reviewing each commodity for confidentiality and fit-for-purpose quality and will publish the expanded range of commodities in *Business Price Indexes: September 2015 quarter*.

See [Producers price index commodities](#) for a preliminary list of these commodities.

We currently publish the PPI tables at NZSIOC level 3 (see industry publication level), however we are planning to publish most of our level 4 industry indexes (our most-detailed level of the NZSIOC classification), subject to confidentiality. Lower-level indexes that can be published will be made available on Infoshare for the September 2015 quarter business price index release.

For example, we currently publish:

CC21: Textile, leather, clothing, and footwear manufacturing

We are planning to publish two additional lower-level indexes:

CC211: Textile and leather manufacturing

CC212: Clothing, knitted products, and footwear manufacturing.

See [data quality](#) (industry publication level) for more about NZSIOC level 3.

**For more detailed data see the Excel tables in the 'Downloads' box.**

## Definitions

### About business price indexes

From the March 2015 quarter, the producers price index (PPI) and capital goods price index (CGPI) information releases are together in an integrated quarterly business price index (BPI) information release.

The BPI release includes the PPI, CGPI, and farm expenses price index (FEPI).

The **PPI** measures changes in prices of outputs that generate operating income and inputs that incur operating expense. It measures changes in prices for the supply (output) and use (inputs) of goods and/or services by the productive sector. The PPI therefore does not include prices for items related to capitalised expenditure, non-operating income, financing costs, and employee compensation. It does not cover depreciation, or income related to property ownership when this is not the normal source of operating income.

The PPI is made up of multiple price sub-indexes, each having a 'basket' of goods and services. The basket details what is priced and what weight is attached to each price for calculating a composite index. We weight each sub-index of the PPI to represent its share of the higher-level index.

The PPI differs from the consumers price index (CPI). The CPI shows the overall price-level change for goods and services acquired by the household sector for consumption, while the PPI measures prices relevant to the productive sector in terms of **supply** and **use**. The productive sector is generally made up of institutions that are not households (eg farms, sole proprietors, partnerships, corporations, cooperatives, government, and non-government organisations).

See [data quality](#) for more about the PPI.

The **CGPI** estimates the overall price change in physical assets that the productive sector acquires or builds. The major asset groups are: buildings, both residential and non-residential; civil construction; land improvements; and plant, machinery, and equipment.

See [data quality](#) for more about the CGPI.

The **FEPI** measures price change for fixed inputs of goods and services to the farming industry. It does not fully measure changes in the production costs of farming. This is because production costs do not solely depend on price movements, but also on factors that affect productivity (eg technological advances, management efficiency, and climate fluctuations).

FEPI does not cover capital expenditure and depreciation. (For price indexes of capital expenditure, refer to the CGPI.)

### More definitions

**All-industries index:** an overall PPI represents the price change for inputs, and for outputs, for the total productive sector. Both represent the weighted combination of industry-level indexes and are labelled 'all industries' in the PPI.



What is and what isn't priced differs in the output and input price indexes at the all-industries level.

- In the all-industries output index, we **do not** price non-market outputs (eg those produced by public administration and safety, education, and health).
- In the all-industries input index, we **do** price inputs into these industries.
- For consistency, we make available an input index 'all-industries excluding these primarily non-market industries' in the tables of this information release.

**Capital goods:** produced assets (eg machinery, equipment, buildings, or other structures) that are used repeatedly or continuously in production over several accounting periods (more than one year).

**Civil construction:** formerly labelled as 'other construction'. Includes mainly infrastructure-related construction (eg roads, electrical works, and pipelines).

**Commodity:** goods or services for which we collect a price – often referred to as an item or a product. Currently, the PPI uses a mix of product classifications but we are standardising them to be in line with the international Central Product Classification. Each commodity can be used in multiple indexes within the PPI.

**Land improvements:** covers land clearing and establishment, fencing, irrigation and drainage, reclamation, and river control.

**Non-residential buildings:** covers shops, offices, warehouses, factories, farm buildings, and other non-residential building. Pricing relates to the construction of these buildings or additions to existing buildings.

**Plant, machinery, and equipment:** the largest category in the CGPI, both in terms of weight and number of categories. It covers a wide variety of asset types for a wide range of industrial use.

**PPI input indexes:** measure changes in prices paid by producers for goods and services they use. We weight and price goods and services used by New Zealand producers to present an input price index for each industry. Inputs can either be domestically supplied or imported.

**PPI output indexes:** measure changes in the prices of goods and services received by producers. We weight and price goods and services produced to present an overall output price index for each industry. This output can be used, domestically or abroad, by other producers or by final consumers.

**Residential buildings:** covers dwellings and out-buildings, hostels, and boarding houses. Pricing relates to the construction of new buildings or additions to existing buildings.

**Transport equipment:** is broken down into small and large passenger vehicles, commercial vehicles, buses, trailers, motorcycles, and aircraft.

## **Related links**

### **Next release**

*Business price indexes: September 2015 quarter* will be released on 19 November 2015. It includes the PPI, CGPI, and FEPI.

[Subscribe to information releases](#), including this one, by completing the online subscription form.

[The release calendar](#) lists all our upcoming information releases by date of release.

### **Past releases**

[Producers price index](#) has links to past PPI and FEPI releases.

[Capital goods price index](#) has links to past releases.

## Data quality

### Period-specific information

This section contains information about data that has changed since the last release.

- [Response rates for June 2015 quarter](#)

### General information

This section contains information about data that does not change between releases.

- [Updates and reviews](#)
- [Action from PPI review](#)
- [Price collection](#)
- [Scope and coverage](#)
- [Reference periods](#)
- [Consistency with previous PPI series](#)
- [Series references](#)
- [Contract indexation](#)
- [Foreign-currency prices](#)
- [Pricing financial services](#)
- [More information](#)

## Period-specific information

From the March 2015 quarter, the producers price index (PPI) and capital goods price index (CGPI) information releases are together in an integrated quarterly business price indexes (BPI) information release.

This BPI release includes the June 2015 quarter PPI, CGPI, and farm expenses price index (FEPI) data.

### Response rates for June 2015 quarter

#### Key firms

Achieved: 100 percent

Target: 100 percent

#### Non-key firms

Achieved: 97 percent

Target: 96 percent

## General information

### Updates and reviews

#### Annual update of weights

After implementing the Australian and New Zealand Standard Industrial Classification 2006 (ANZSIC06) in the March 2011 quarter, we update the producers price index (PPI) industry and commodity weights annually. We source the weights from the supply and use tables (SUT)

produced annually as part of the New Zealand System of National Accounts. The weights associated with the commodities, and the weights attached to each industry, are therefore annually chain-linked. This reflects changes in economy-wide income and expenditure in the mix of products and the mix of industries.

The new weights introduced in the March 2015 quarter are generally sourced from the 2011/12 SUT and expressed in the prices of the December 2014 quarter. We are using these weights to weight price movements from the December 2014 quarter to the March, June, September, and December 2015 quarters.

The industry-based indexes in this release represent the mix of goods and/or services either used or supplied by that industry. We derive these weights from the percentage of income or expenditure that the respective goods and/or services represent. These weights are important because they help determine the overall index change that results from many price changes.

See [Producers price index weights](#) for the Excel tables of industry weights and industry-by-commodity weights.

### **Industry reviews**

In addition to the annual reweight, we are now reviewing the PPI. This work produces an up-to-date set of commodity proportions for use in the New Zealand Standard Industrial Output Categories (NZSIOC) level 4 index. These updated proportions are then used by national accounts to update the SUT, which in turn are used in the annual reweight.

### **Commodity reviews**

In 2011, we began to review the commodities used within the PPIs. This work re-evaluates the sample of products we price, and the weights we apply to them within each commodity, to ensure they are relevant and fit for purpose.

Each commodity contributes to each industry index with a different weight, which we update annually based on the SUT, as discussed above. Each time it is used, it carries a weight that is relevant to the (sub-) index in which it is used. For example, diesel is used in varying amounts in each industry and is also an output of the retail, wholesale, and/or manufacturing industries.

### **Action from PPI review**

#### **Sources and methods document and weight tables**

As part of a recent review of the scope and purpose of the PPI we made several decisions, one of which was to produce updated sources and methods documentation, including tables of PPI industry-by-commodity weights. We published the tables of industry weights with the April 2015 issue of *Price Index News*.

See [Producers price index: concepts, sources and methods](#) to view the updated sources and methods.

See [Producers price index weights](#) to view the Excel tables of industry-by-commodity weights and the previously published industry weights.

See [Review of scope and purpose of the producers price index](#) for more information about the review.

## **New analytical PPI series for all industries, excluding ownership of occupied dwellings**

We also decided to publish an analytical PPI series for all industries, excluding owner-occupied dwellings (OOD). This series gives customers a market-only view of the PPI (excluding the notional output of OOD).

These new series are:

<b>New index</b>	<b>Series reference</b>
Output PPI for industry group LL: rental, hiring, and real estate services excluding OOD	PPIQ.SQULL0001 – Infoshare only
Output PPI all industries excluding OOD	PPIQ.SQU900001 – Tables 1, 3, 5, and Infoshare
Input PPI for LL: rental, hiring, and real estate services excluding OOD	PPIQ.SQNLL0001 – Infoshare only
Input PPI all industries excluding OOD	PPIQ.SQN900001 – Tables 2, 4, 6, and Infoshare
Input PPI all industries excluding admin, health, education, and OOD	PPIQ.SQN800001 – Tables 2, 4, 6, and Infoshare

### **Financial intermediation services indirectly measured (FISIM) in the PPI input indexes**

We now include FISIM in the PPI input indexes (previously FISIM was only in the output PPI for the finance industry). We made this change from the March 2015 quarter.

FISIM is the general intermediation service provided by banks (and other financial intermediaries), which is not explicitly charged for but is implicitly charged for – through financial institutions lending money at higher interest rates than they pay to depositors (or organisations from which they borrow the funds).

This change is consistent with how we treat FISIM in the national accounts after implementing the *System of National Accounts 2008*.

## **Price collection**

Most prices we use to calculate the BPI are obtained by the Commodity Price Survey (CPS), a quarterly postal survey. In general, we collect prices by the CPS at the 15th of the middle month of the quarter. For most commodities, we use mid-quarter prices to represent price change for the whole quarter.

The CPS is primarily questionnaire-based but also includes other methods of data collection, such as retrieving data from company websites, electronic returns from survey participants, and using a US Bureau of Labor Statistics measure of computer equipment prices.

We also use some of the data collected for the consumers price index and the labour cost index. Administrative sources also supply prices for calculating the PPI.

For commodities with particularly volatile prices and/or high weights, we try to collect or calculate average prices over the whole quarter. Examples include commodities sold at auction (eg fresh fruit and vegetables, livestock, wool, and dairy products).

## **Sample size**

We price about 10,000 individual items for the BPI, from a survey of approximately 2,200 respondents.

## **Imputation**

Some prices are not available at the time of price collection so we impute a small number of prices each quarter. This is often done by carrying forward the previous quarter's price. Other imputation is done by applying the price movements of similar categories of items.

## **Scope and coverage**

### **Inputs PPI (ie prices paid by producers)**

Producers price indexes of inputs (inputs PPI) relate to prices paid for goods and services. Inputs PPI measure changes in the prices of goods and services used by producers resident in New Zealand. Inputs PPI exclude labour, finance, and depreciation costs.

Inputs PPI cover the prices of:

- materials
- fuels and electricity
- transport and communication
- commission and contract services
- rent and lease of land, buildings, vehicles, and plant
- business services
- insurance premiums less claims.

Inputs PPI exclude:

- wages and salaries (measured in the labour cost index)
- capital expenditure/depreciation (measured in the CGPI)
- ACC levies, land tax, government licence fees, road-user charges
- rates
- royalties, patent fees
- bad debts and donations.

### **Outputs PPI (ie prices received by producers)**

Producers price indexes of outputs (outputs PPI) are associated with prices charged for the supply of goods and services. Outputs PPI measure changes in the prices of goods and services sold by producers resident in New Zealand.

Outputs PPI cover the prices of:

- goods and/or services legally sold at market prices
- goods and/or services produced for own use by the productive sector.

Outputs PPI exclude:

- interest income and dividends
- royalties and patent fees
- receipts from insurance claims
- government cash grants and subsidies
- goods and services tax (GST) and other indirect taxes.

These indexes are designed to measure price changes before the addition of commodity taxes or deduction of subsidies.

Inputs PPI are available for all industries, while outputs PPI are not available for the public administration and safety, education and training, and health industries. Most outputs of these industries are non-market activities where the prices set, if any, are not directly measurable.

GST is generally excluded from the PPI.

### **Current industry classification for PPI**

We assign an industry classification to every New Zealand business on the Statistics NZ Business Frame. The classification used is the Australian and New Zealand Standard Industrial Classification (ANZSIC).

See table 1 of [Implementing ANZSIC 2006 in national accounts and productivity statistics](#) for an explanation of the major differences between the two ANZSIC versions published 2011.

We construct the PPI using ANZSIC06 as the basis for industry definition, and publish it using ANSIOC (see 'Industry publication level' below).

The ANZSIC06-based PPI is our official industry series.

### **Industry publication level**

The level of industry detail we publish under ANZSIC06 is standardised across our publications. This maintains consistency and reflects the structure of the New Zealand economy. The New Zealand Standard Industrial Output Classification (NZSIOC) is our standard industry level for publication.

The industry definitions used in the PPI are constructed using ANZSIC06, but published using NZSIOC. The most-detailed PPI publication level is level 3 of the NZSIOC classification. We compile the PPI using the most-detailed level of the NZSIOC classification (level 4), which has 118 distinct industry groupings.

### **Capital goods price index (CGPI) scope**

The CGPI is a price index conceptually related to gross fixed capital formation in the *System of National Accounts*. However, it only measures prices for purchases of new fixed assets and not existing ones.

For example, we do not include second-hand trucks or buses, which may be heavily used by the productive sector, in the CGPI. Similarly, the CGPI prices the construction of new buildings and additions, but not the existing stock of buildings.

The CGPI is a Laspeyres base-weighted price index series. We determine the weights of the commodities by the relative importance within each of the asset type indexes. Weighting

information is derived from statistics on external trade, manufacturing and building, and vehicle registrations, as well as discussions with manufacturers, importers, wholesalers, and retailers. We use data for several years, as expenditure on capital goods can be irregular. Goods and services tax (GST) is excluded from prices we use in this index.

Some fundamental differences exist between the CGPI and the PPI, even though both are generally based on the same data source – the commodity price survey. The CGPI is primarily a product-based index, whereas the PPI is both an industry-based and a product-based index (for instance, inputs into the dairy product manufacturing industry).

The scope of the CGPI also differs from the PPI. The CGPI measures changes in prices for fixed assets rather than products used up by the productive sector within an accounting year. The inputs PPI covers goods and services used by the productive sector.

### **Farm expenses price index (FEPI) scope**

FEPI provides information on changes in input costs for the New Zealand farming industry.

In the March 2014 quarter, we implemented changes resulting from our review of FEPI. We now publish all expenditure categories in FEPI quarterly.

FEPI is published for six different farm types:

Four that align with the NZSIOC:

- sheep, beef, and grain farms (from the December 2013 quarter)
- dairy cattle farms
- horticultural and fruit-growing farms
- poultry, deer, and other livestock farms (from the December 2013 quarter).

Two additional farm types:

- sheep and beef farms
- cropping and other farming.

These indexes now have an index reference period of the December 2013 quarter (=1000).

See development updates in [Price Index News](#) for more details.

FEPI is different from the inputs PPI as it includes:

- local and central government rates and fees
- interest rates
- wages and salaries.

The FEPI interest rates input type measures changes in nominal interest rates. This method does not take into account the changing purchasing power of the value borrowed. This means that if more debt is required over time to buy the same piece of land (as the price of land increases), interest expenses would increase but the interest rate index in FEPI would not show that increase.

The weight for interest rates used in FEPI reflects the total amount paid by farmers in interest payments. This is different from the methodology used for the PPI.



Our treatment of insurance in FEPI is consistent with the PPI and national accounts. We use a 'net basis' (premiums less claims), where services insurance companies provide are considered to be the management of insurance, and we treat claims as a transfer between households and businesses.

We also changed the inputs PPI tables for agriculture to align with the NZSIOC. The new indexes for the farm types are 'sheep, beef cattle, and grain farming' and 'poultry, deer, and other livestock farming'.

The previous farm type indexes are still available as part of FEPI. (See the 'subtotal including livestock' indexes of FEPI, tables 6 and 7.)

## **Reference periods**

### **Weight reference period**

As part of classifying industries in the PPI using ANZSIC06, we updated the industry weights and the commodity weights that underlie the industry indexes. Also we introduced a system of annual updating of weights that use the SUT – produced as part of annual national accounts. We introduce updated PPI weights each March quarter. Therefore the March 2015 quarter introduced an updated weight reference period of the year to March 2012.

The years we use to calculate the FEPI weights range from 2009 to 2012. This is partly because of limitations of available data, and partly because the volatility of agricultural data means a two- or three-year average is more appropriate to use to represent a 'typical' year for weighting purposes.

### **Price reference period**

The price reference period is the quarter that the latest quarter's prices are compared with in order to calculate indexes. After updating the weight reference period of the PPI (see above), our price reference period is the December 2014 quarter.

### **Index reference period**

Our index reference period for the ANZSIC06-based PPI is the December 2010 quarter, so all indexes equal 1000 for this period. The choice of an index reference period is arbitrary and the percentage movements in the indexes are unaffected by the period chosen.

The CGPI indexes have an index reference period of the September 1999 quarter (=1000).

The FEPI indexes have an index reference period of the December 2013 quarter (=1000).

## **Consistency with previous PPI series**

We used the previous ANZSIC96-based PPI series to provide a 'history' for each series of the ANZSIC06-based PPI series. The backcast series include all the published industry indexes. This gives backcast series as far back as the ANZSIC96-based PPI series are available (generally to the June 1994 quarter). The backcast series are linked to the directly calculated ANZSIC06-based series, at the December 2010 quarter.

## Series references

The ANZSIC06-based PPI series have series references with the following pattern:

- PPI outputs (PPIQ.SQU\*)
- PPI inputs (PPIQ.SQN\*).

The \* indicates the NZSIOC industry codes. These codes are shown in the tables beside each industry. For example, for horticulture and fruit growing, the NZSIOC code is AA11.

We reviewed the series appearing in the 'selected commodities table' (table 7). The updated selection has series references with the pattern PPIQ.SQCNN. The 'nn' indicates sequential numbers starting with 01.

Infoshare makes the two ANZSIC families of PPIs (ANZSIC96 and ANZSIC06) clearly distinguishable by naming the former series ANZIND and the latter series NZSIOC. ANZIND was the published level of ANZSIC96 which has been discontinued, while NZSIOC is the published level for ANZSIC06.

The CGPI series have series references with the following pattern:

- CEPQ.S2\*

The FEPI series have series references with the following pattern:

- FPIQ.SE\*

## Contract indexation

Parties that engage in commercial contracts use our price indexes in their indexation clauses (also known as contract escalation clauses). An indexation clause provides both parties to a contract with an agreed procedure for adjusting an originally contracted price, to reflect changes in costs or prices during the contract's life.

Contract Indexation: A Guide for Businesses has information on our price indexes and issues relating to their use in indexation clauses. The guide also outlines points to consider when preparing an indexation clause, and includes an example of the mechanics of a simple indexation formula.

## Foreign-currency prices

In the CPS we ask respondents to quote prices in New Zealand dollars (NZD). However, in some cases this causes difficulty. Prices collected for imported goods are often denominated in foreign currencies (eg USD).

When calculating the BPI, we convert these currencies to NZD using the mid-quarter exchange rate for that currency; that is, divided by the bank selling rate at the 15th of the middle month of the quarter.

## Pricing financial services

We categorise the output of the banking sector two ways. Firstly, there are services provided by banks (and other financial intermediaries) that are explicitly charged for, such as bank account fees. Secondly, there is the general intermediation service these businesses provide, which is not explicitly charged for, but is implicitly charged for – through financial institutions lending money at higher interest rates than they pay to depositors (or organisations from which they borrow the funds).

Pricing the explicit services provided by financial intermediaries is relatively straightforward, and the PPI outputs index for the finance industry contains prices to represent this component of their output.

Pricing the intermediation services provided by financial institutions that are not explicitly charged for is more problematic. Within the PPI outputs index, the approach we've adopted is to determine the differential interest rate (referred to as a 'spread') between banks' lending activities (referred to as 'claims') compared with their borrowing activities (referred to as 'funding'), and apply this spread to an inflation-adjusted base period value of financial intermediation.

The 'price' that we then derive can be thought of as the charge the banks implicitly make to intermediate sufficient funds needed to purchase a base period volume of goods/services. We source the claims and funding rates in this calculation from the Reserve Bank of New Zealand while the inflation adjustment is carried out using the all groups CPI.

See [statistics](#) (table B5 weighted average interest rates on NZD funding and claims: Registered banks).

The Reserve Bank figures may be revised if more complete information becomes available. We use the latest available Reserve Bank figures at the time the PPI is compiled (one month after the reference quarter) and do not update the PPI if the Reserve Bank figures are subsequently revised. These revisions tend to be small.

One limitation of our approach is that the weighted average interest rates on funding that we source from the Reserve Bank's published information exclude foreign-currency funding. This accounted for approximately 30 percent of total registered-bank funding at December 2008. The Reserve Bank has reported it is working with registered banks to collect this information. We will incorporate this additional information, to increase the coverage of bank funding interest rates in the PPI, when it becomes available.

If the levels of the foreign-currency funding interest rates are higher than the NZD currency funding rates, then the existing calculated spread would be too high. While this would influence the level of the calculated 'price' of the implicit intermediation service, it is important to note that the PPI measures price movements rather than price levels.

Thus, the lack of coverage of foreign-currency funding rates in calculating the spread would only appear in the PPI if the relative movements of the foreign-currency funding rates were significantly different from those of the NZD funding rates.

We have looked at indicative alternative sources of foreign-currency funding rates, and decided to continue to publish the existing index (which does not include foreign-currency funding rates) until reliable information on these rates becomes available.

**Note:** The NZD funding costs exclude the impact of hedging, for example interest rate-swap costs incurred against fixed-rate claims. This is because, for the PPI, we are interested in the

rates contracted to by the parties to financial intermediation transactions. We consider the hedging arrangements, although affecting the bottom-line profit of the banks, to be separate transactions.

## More information

### Customised price indexes

We have a large number of unpublished sub-industry and representative commodity price indexes. We use many of these for deflating current-price estimates in areas such as national accounts and tourism statistics.

These indexes are available at a small charge (to cover dissemination costs). More customised data is also available to cover specific needs but these cost more to develop.

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### Business price indexes

1. Business price indexes, summary – index numbers and percentage changes

### Producers price index

1. Producers price index, outputs – index numbers
2. Producers price index, inputs – index numbers
3. Producers price index, outputs, percentage change from previous quarter
4. Producers price index, inputs, percentage change from previous quarter
5. Producers price index, outputs, percentage change from same quarter of previous year
6. Producers price index, inputs, percentage change from same quarter of previous year
7. Producers price index, selected commodities – index numbers and percentage changes

### Capital goods price index

1. Capital goods price index
2. Capital goods price index, percentage change from previous quarter
3. Capital goods price index, percentage change from same quarter of previous year

### Farm expenses price index

- 1.01 Farm expenses price index, all farms – index numbers
- 1.02 Farm expenses price index, all farms, percentage change from previous quarter
- 1.03 Farm expenses price index – all farms, percentage change from same quarter of previous year
2. Farm expenses price index, sheep, grain, and beef farms – index numbers
3. Farm expenses price index, dairy farms – index numbers
4. Farm expenses price index, horticulture and fruit-growing farms – index numbers
5. Farm expenses price index, poultry, deer, and other livestock – index numbers
6. Farm expenses price index, sheep and beef farms – index numbers
7. Farm expenses price index, cropping and other farming – index numbers

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## **Next release**

*Business price indexes: September 2015 quarter* will be released on 19 November 2015.