

# Producers Price Index: June 2014 quarter

Embargoed until 10:45am – 19 August 2014

## Key facts

### Quarterly change

For the producers price index (PPI) in the June 2014 quarter, compared with the March 2014 quarter:

The output PPI (prices **received by** producers) fell 0.5 percent.

- Dairy cattle farming output prices fell 11 percent.
- Dairy product manufacturing output prices fell 2.9 percent.

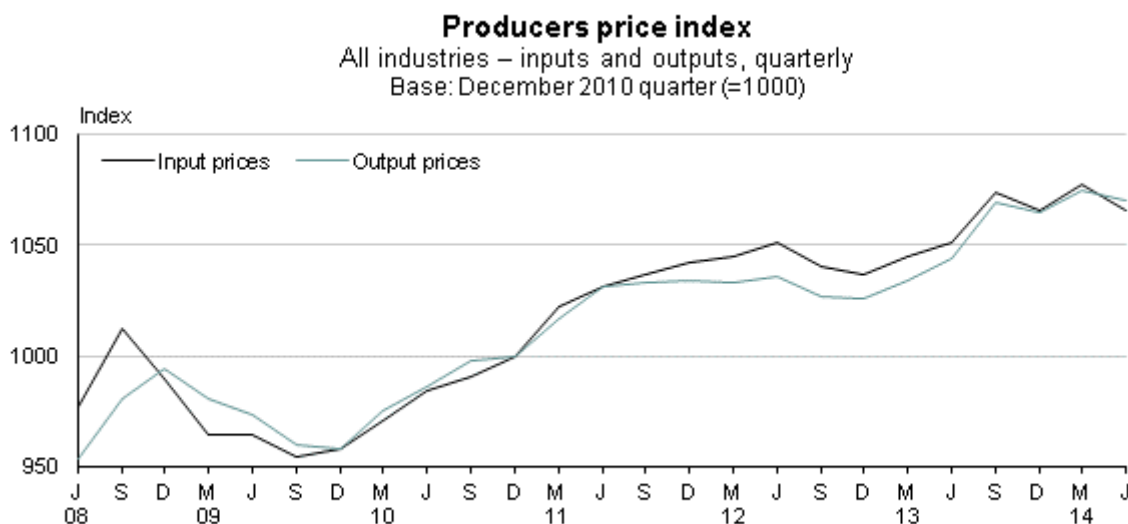
The input PPI (prices **paid by** producers) fell 1.0 percent.

- Dairy product manufacturing input prices fell 9.4 percent.
- Electricity and gas supply input prices fell 8.4 percent.

### Annual change

In the June 2014 quarter, compared with the June 2013 quarter:

- The output PPI increased 2.5 percent.
- The input PPI increased 1.4 percent.



Source: Statistics New Zealand

Liz MacPherson, Government Statistician  
ISSN 1178-0622  
19 August 2014

## Commentary

- Output PPI falls 0.5 percent in June 2014 quarter
- Dairy cattle farming is key to output PPI fall
- Dairy product manufacturing falls due to lower prices for milk powder
- Input PPI down 1.0 percent for June quarter
- Dairy product manufacturers pay lower prices for raw milk
- Electricity generation falls
- Movements for selected commodities vary
- New Zealand dollar appreciates
- Commodity reviews implemented this quarter

### Output PPI falls 0.5 percent in June 2014 quarter

The output producers price index (PPI), representing prices received for all goods and services produced by New Zealand's productive sector, fell 0.5 percent in the June 2014 quarter. This compared with a 0.9 percent rise in the March 2014 quarter and a 0.4 percent fall in the December 2013 quarter.

Lower prices for the dairy cattle farming, and the dairy product manufacturing industries contributed to the lower overall output PPI.

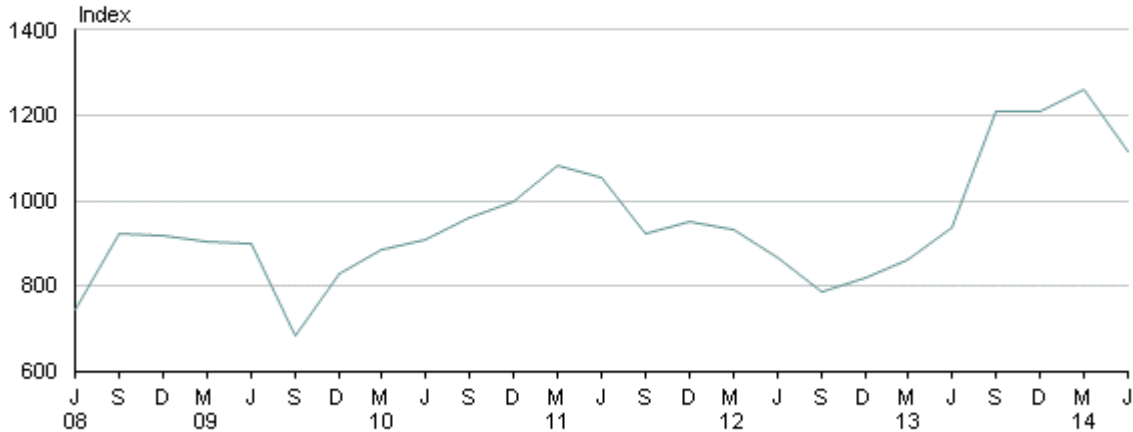
In the year to the June 2014 quarter, the output PPI rose 2.5 percent, compared with annual rises of around 4 percent in the previous three quarters.

### Dairy cattle farming is key to output PPI fall

The dairy cattle farming index (down 11 percent) contributed strongly to the output PPI fall in the June 2014 quarter. This is the first quarterly fall since the September 2012 quarter (down 9.4 percent). The current quarterly decrease resulted from lower farm-gate milk prices for dairy farmers.

In the year to the June 2014 quarter, the output price index for dairy cattle farming increased 19 percent. This compares with a 47 percent increase in the year to the March 2014 quarter and a 48 percent increase in the year to the December 2013 quarter.

**Producers price index**  
 Outputs – dairy cattle farming, quarterly  
 Base: December 2010 quarter (=1000)



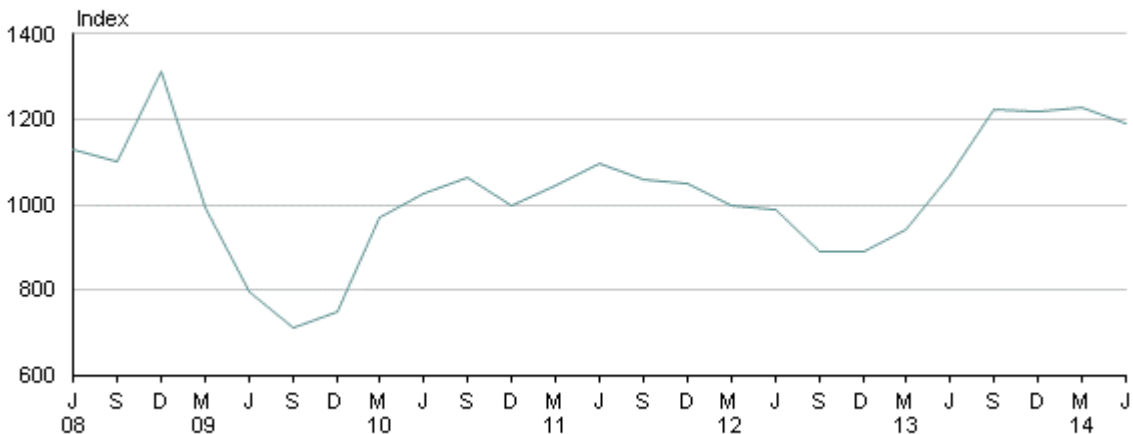
Source: Statistics New Zealand

## Dairy product manufacturing falls due to lower prices for milk powder

In the June 2014 quarter, the output prices for dairy product manufacturing fell 2.9 percent. The fall was influenced by lower prices for milk powder.

In the year to the June 2014 quarter, the dairy product manufacturing output price index increased 12 percent. This compares with a 30 percent increase in the year to the March 2014 quarter and a 37 percent increase in the year to the December 2013 quarter.

**Producers price index**  
 Outputs – dairy product manufacturing, quarterly  
 Base: December 2010 quarter (=1000)



Source: Statistics New Zealand

## Input PPI down 1.0 percent for June quarter

The input PPI measures changes in prices paid by producers for the goods and services they use. In the June 2014 quarter, the input PPI fell 1.0 percent, following a 1.0 percent rise in the March 2014 quarter.

The input price index for the dairy product manufacturing industry (down 9.4 percent) made the largest contribution to the latest fall. The second major contributor was the electricity and gas supply industry (down 8.4 percent).

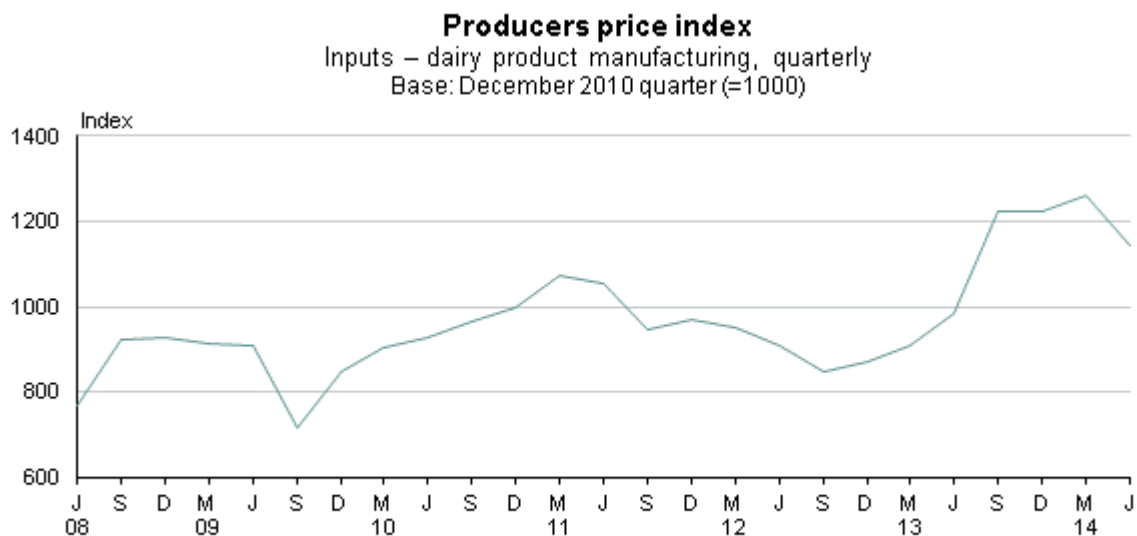
In the year to the June 2014 quarter, the input PPI increased 1.4 percent.

## Dairy product manufacturers pay lower prices for raw milk

In the June 2014 quarter, the input price index for dairy product manufacturing decreased 9.4 percent, due to lower raw milk prices paid by dairy product manufacturers.

The latest fall in the dairy product manufacturing input price index reflected the latest milk payout forecast price (note: the June 2014 quarter bridges the last two months of the 2013/14 season and the first month of the 2014/15 season). This was influenced by the recent fall in global dairy commodity prices, strong global production, a build-up of inventory in China, and falling demand in some emerging markets. In addition, the New Zealand dollar remained strong, which has a downward influence on prices.

For the year to the June 2014 quarter, the input price index for the dairy product manufacturing industry rose 16 percent. This is the fifth consecutive annual rise since an 8.6 percent increase in the year to the June 2013 quarter.



Source: Statistics New Zealand

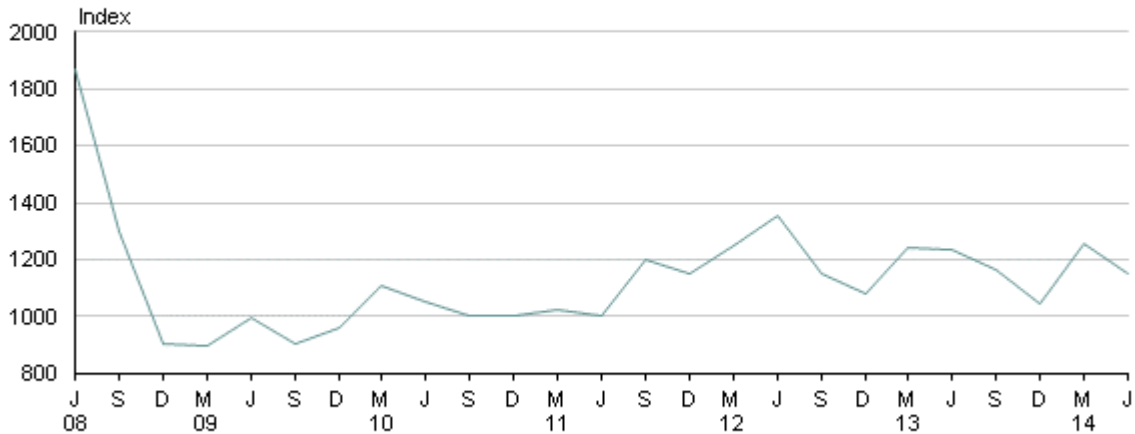
## Electricity generation falls

In the June 2014 quarter, the electricity and gas supply input price index fell 8.4 percent.

The latest fall was due to lower electricity generation prices, influenced by electricity spot-market conditions, a shift towards geothermal production over thermal (gas-fired) generation, and higher lake levels.

For the year to the June 2014 quarter, the input price index for the electricity and gas supply industry decreased 7.0 percent.

**Producers price index**  
 Inputs – electricity and gas supply, quarterly  
 Base: December 2010 quarter (=1000)



Source: Statistics New Zealand

## Movements for selected commodities vary

### Prices rise for sheep and lamb

The prices for sheep and lamb rose 10 percent in the June 2014 quarter. This is the fourth consecutive quarterly increase. Strong demand for sheepmeat exports contributed to the rise.

In the year to the June 2014 quarter, sheep and lamb prices rose 34 percent, the largest increase since the year to the June 2011 quarter (up 37 percent).

### Electricity prices for commercial consumers rise

Prices of electricity paid by commercial consumers rose 13 percent in the June 2014 quarter. This compares with an 8.1 percent increase in the March 2014 quarter, and an 11 percent rise in the June 2013 quarter.

In the year to the June 2014 quarter, electricity prices for commercial consumers fell 1.4 percent. This is the fifth consecutive annual fall.

### Fertiliser prices up

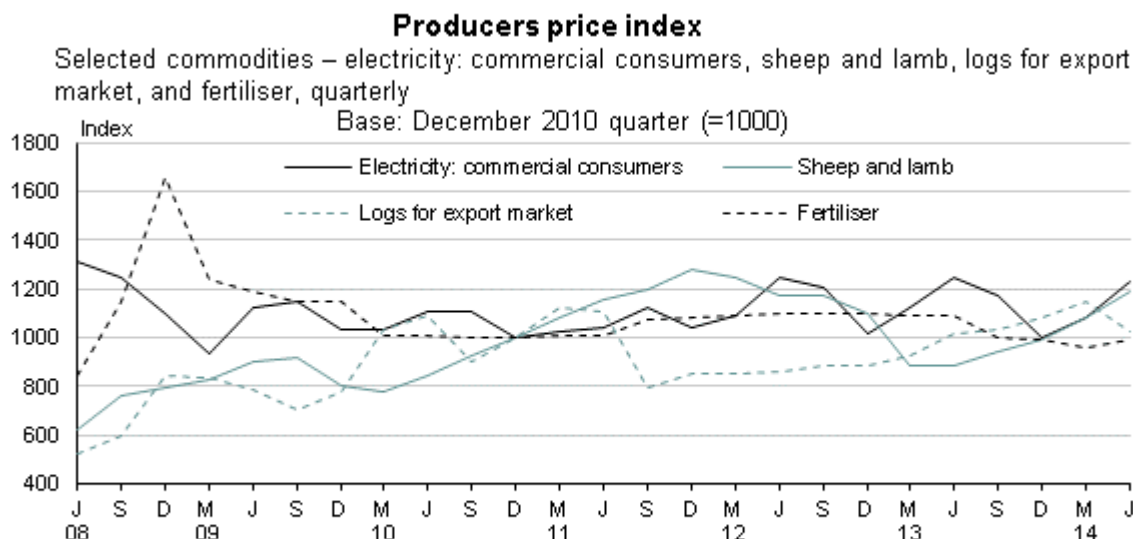
The prices for fertiliser rose 3.1 percent in the June 2014 quarter, after five consecutive quarterly falls. The latest rise was mainly influenced by higher prices for urea.

In the year to the June 2014 quarter, fertiliser prices fell 9.2 percent. This is the fifth consecutive annual fall.

### Prices for export logs down

The prices for logs for the export market fell 11 percent in the June 2014 quarter, following five consecutive quarterly increases. The latest fall was mainly influenced by high inventories and lower demand for logs in Asian markets.

In the year to the June 2014 quarter, the prices for export logs rose 0.8 percent. This compares with 23 percent annual rises in the previous two quarters.



Source: Statistics New Zealand

## New Zealand dollar appreciates

The New Zealand dollar appreciated against four key traded currencies in the June 2014 quarter, but depreciated against the Australian dollar. An appreciating New Zealand dollar tends to have a downward influence on the prices paid by New Zealand producers for imported goods and services, and the prices received for exports.

When calculating the PPI, we generally use prices collected on the 15th day of the middle month in the quarter to represent the entire quarter. Prices collected for imported goods are often denominated in foreign currencies. These currencies are converted to New Zealand dollars, using the exchange rate at the time of pricing.

The table below shows changes in the value of the New Zealand dollar, in foreign-currency denominations, from the midpoint of the March 2014 quarter to the midpoint of the June 2014 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 2014	0.8224	0.4938	0.9162	83.9006	0.5998
15 May 2014	0.8520	0.5088	0.9094	86.7837	0.6209
Percentage change	3.6	3.0	-0.7	3.4	3.5

Source: Westpac Banking Corporation

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

## Commodity reviews implemented this quarter

We are continuing our rolling review of the business price indexes. The review has two objectives: to maintain the relevance of these indexes and to collect commodity data for use in the national accounts.

We are surveying a sample of economically significant enterprises operating in New Zealand, to collect information on their supply and use of goods and services (commodities). We use this commodity information (by industry) to update lower-level weights for the business price indexes. These are used as deflators in producing a chain-volume measure of GDP.

In the June 2014 quarter, redeveloped commodity price indexes have been implemented for eight industries:

- forestry and logging
- aquaculture
- agriculture, forestry, and fishing support services, and hunting
- petroleum and coal product manufacturing
- basic chemical and chemical product manufacturing
- beverage and tobacco product manufacturing
- transport equipment, machinery, and other equipment manufacturing
- rail, water, air, and other transport

Please see [commodity reviews implemented this quarter](#) in the 'data quality' section for further details on specific commodities.

## Definitions

### About the producers price index

The producers price index (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 one 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. Each sub-index of the PPI is weighted to represent its share of the higher-level index.

The industry-based indexes presented in this release represent the mix of goods and/or services either used or supplied by that industry. These weights are derived 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.

The PPI differs from the consumers price index (CPI). The CPI shows the overall price-level change for goods and services consumed by the household sector, 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).

### 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 the input price indexes at the all-industries level.

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

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



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

**Output indexes:** measure changes in the prices of goods and services **received** by producers. Goods and services produced are priced and weighted 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.

## **Related links**

### **Upcoming releases**

The *Producers Price Index: September 2014 quarter* will be released on 20 November 2014.

[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 releases.

### **Related information**

The [capital goods price index](#) measures movements in the average levels of prices of physical capital assets within the New Zealand economy.

The [farm expenses price index](#) measures price changes of fixed inputs of goods and services to the farming industry.

## Data quality

### Period-specific information

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

- [Response rates for June 2014 quarter](#)
- [Commodity reviews implemented this quarter](#)

### General information

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

- [Updates and reviews](#)
- [Price collection](#)
- [Farm expenses price index](#)
- [Changes resulting from our review of the farm expenses price index](#)
- [Sample size](#)
- [Data accuracy](#)
- [Imputation](#)
- [Scope and coverage](#)
- [Current industry classification](#)
- [Reference periods](#)
- [Consistency with previous PPI series](#)
- [Contract indexation](#)
- [Foreign-currency prices](#)
- [Pricing financial services](#)
- [More information](#)

## Period-specific information

### Response rates for June 2014 quarter

#### Key firms

Achieved: 100 percent

Target: 100 percent

#### Non-key firms

Achieved: 97 percent

Target: 96 percent

### Commodity reviews implemented this quarter

In the June 2014 quarter, updated commodity indexes were implemented for the following commodities.

#### Forestry and logging

- non-wood forest products
- wood in the rough
- support services to forestry and logging

In the output indexes, the weights of these commodities are high for the forestry and logging industry, which supplies a lot of these products and services, and low or zero for other industries. In the input indexes, these commodities are used by some industries, but mainly used by the forestry and logging; wood product manufacturing; and pulp, paper, and converted paper manufacturing industries.

### **Aquaculture**

- other aquatic plants and animals

In the output indexes, the weight of this commodity is high for the aquaculture industry, which supplies a lot of this product, and low or zero for other industries. In the input indexes, this commodity is mainly used by the fishing and aquaculture industry, and also by a small number of other industries with low weights.

### **Agriculture, forestry, fishing support services, and hunting**

- support services to agriculture including animal husbandry
- support services to hunting and fishing

In the output indexes, the weights of these commodities are high for the agriculture, forestry, fishing support services, and hunting industry, which supplies a lot of these services, and low or zero for other industries. In the input indexes, these commodities are mainly used by the agriculture, forestry, and fishing industries, and also by a small number of other industries with low weights.

### **Petroleum and coal product manufacturing**

- petrol
- diesel
- other petroleum oils
- petroleum and chemical product manufacturing services

In the output indexes, the weights of these commodities are high for the petroleum and coal product manufacturing industry, which supplies a lot of these products and services, and low or zero for other industries. In the input indexes, the petrol and diesel commodities are used by all industries and have low weights. The other petroleum oils and the petroleum and chemical product manufacturing services commodities are used by some industries with low weights.

### **Basic chemical and chemical product manufacturing**

- methanol
- basic organic chemicals (excluding methanol)
- basic inorganic chemicals n.e.c.
- miscellaneous basic chemical products
- fertiliser
- pesticides
- plastics in primary forms
- pharmaceutical products
- soap, cleaning, perfumes, and toilet preparations
- chemical products n.e.c.

In the output indexes, the weights of these commodities are high for the basic chemical and chemical product manufacturing industry, which supplies a lot of these products and services, and low or zero for other industries. In the input indexes, these commodities are used by some industries. For example, companies in the fertiliser and pesticide manufacturing industry purchase methanol to make the products that they sell.

### **Beverage and tobacco product manufacturing**

- tobacco products

In the output indexes, the weight of this commodity is low for the beverage and tobacco product manufacturing industry, and zero for other industries. In the input indexes, this commodity is not used by any other industry.

### **Transport equipment, machinery, and other equipment manufacturing**

- motor vehicles, trailers, and semi-trailers
- ships
- pleasure and sporting boats
- railway and tramway locomotives and rolling stock
- aircraft and spacecraft, and parts thereof
- other transport equipment and parts thereof
- domestic appliances and parts thereof
- office and accounting machinery
- computing machinery and parts and accessories
- electric motors, generators, and transformers
- electricity distribution and control apparatus
- insulated wire and cable; optical fibre cables
- accumulators, primary cells, and primary batteries
- electric filament, lamps, and lighting equipment
- other electrical equipment and parts thereof
- electronic valves and tubes; electronic components
- television and radio transmitters, digital cameras
- radio broadcast and television receivers
- parts for radio, television, communication
- disks, tapes, solid-state non-volatile storage
- medical and surgical equipment
- instruments for measuring, testing, navigating
- optical instruments and photographic equipment
- engines and turbines and parts thereof
- pumps, compressors, hydraulic, pneumatic engines
- bearings, gears, gearing, and driving elements
- lifting and handling equipment and parts thereof
- other general-purpose machinery and parts thereof
- agricultural or forestry machinery
- machine-tools and parts and accessories thereof
- machinery for metallurgy and parts thereof
- machinery for mining, quarrying, and construction
- machinery for food, beverage, tobacco processing
- machinery for textile, apparel, leather production
- other special-purpose machinery and parts thereof
- maintenance and repair of transport machinery

In the output indexes, the weights of these commodities are high for the transport equipment, machinery, and other equipment manufacturing industries, which supply a lot of these products and services, and low or zero for other industries. In the input indexes, which measures changes in the prices of goods and services used by producers, many of these products have low or zero weights. Most purchases of these commodities are capitalised and excluded from the PPI (and included in the capital goods price index) and only purchases that are treated as an expense are covered in the PPI. Most purchases of these commodities that are included in the PPI are for parts and smaller items.

### **Rail, water, air, and other transport**

- railway transport services of freight
- railway passenger transport
- water transport services of freight
- water passenger transport
- air transport services of freight
- air passenger transport
- scenic and sightseeing transportation services

In the output indexes, the weights of these commodities are high for rail, water, air, and other transport, which supply a lot of these services, and low or zero for other industries. In the input indexes, these commodities are used by most industries, generally with small weights.

These commodity indexes are not published.

## **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, the producers price index (PPI) has its industry and commodity weights updated 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 2014 quarter are generally sourced from the 2010/11 SUT. We have generally expressed these PPI industry and commodity weights in the prices of the December 2013 quarter. These weights are being used to weight price movements from the December 2013 quarter to the March, June, September, and December 2014 quarters.

### **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 each 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.

See the April 2013 [Price Index News](#) for more detailed information.

## **Commodity reviews implemented**

In 2011, we began to review the commodities used within the PPIs. This work re-evaluates the sample of products that are priced, and the weights that are applied 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.

## **Price collection**

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

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, such as fresh fruit and vegetables, livestock, wool, and dairy products.

Prices the CPS collects are not only used in the PPI. We use many prices in other business price indexes, such as the capital goods price index (CGPI) and the farm expenses price index (FEPI). Some prices that we principally collect for other indexes, such as the consumers price index (CPI), are also used in the PPI. Administrative sources also supply prices for calculating the PPI.

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

FEPI measures price changes of 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 depend on factors that affect productivity, such as 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.)

FEPI is produced every quarter, and is released with that quarter's PPI as supplementary tables.

## **Changes resulting from our review of the farm expenses price index**

In the March 2014 quarter, we implemented changes resulting from our review of the farm expenses price index.

### **Key changes to the index**

All the expenditure categories in the farm expenses price index will be published quarterly as a table included in the PPI information release. This includes indexes that were previously available for only the March quarter of each year:

- interest rates
- local and central government rates and fees
- wages and salaries
- all inputs indexes.

All series are expressed on a new base of the December 2013 quarter (=1000).

Two new farm types have been added to the published series. We will publish the four farm types that align with the New Zealand Standard Industrial Output Categories (NZSIOC):

- sheep, beef, and grain farms (new)
- dairy cattle farms (existing)
- horticulture and fruit-growing farms (existing)
- poultry, deer, and other livestock farms (new).

In addition, we will continue to publish the farm types:

- sheep and beef farms
- cropping and other farming.

At the request of our customers, we have separated some expenditure categories.

- fertiliser, lime, and seeds has been split into three separate indexes.
- in dairy cattle farms, animal health and breeding has been split into two separate categories.

These indexes have a base of the December 2013 quarter (=1000).

For further details see the development updates section of [Price Index News](#).

### **Review of the agricultural inputs indexes**

We have changed the PPI input tables for agriculture to align with the New Zealand Standard Industrial Output Categories (NZSIOC).

Indexes for the farm types:

- sheep and beef farming
- cropping and other farming

will no longer be available as part of the PPI publication. They have been replaced by:

- sheep, beef, and grain farming
- poultry, deer, and other livestock.

These indexes have a base of the December 2013 quarter (=1000).

The FEPI series have new series references, which have the following pattern:

- FPIQ.SE\*

The previous farm type indexes are still available as part of the farm expenses price index. Refer to the 'subtotal including livestock' indexes of the farm expenses price index, tables 6 and 7.

For further details see Infoshare – [Changes by date](#).



## **Sample size**

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

## **Data accuracy**

While we have procedures to detect and minimise avoidable variation and eliminate errors, they may still occur and are not quantifiable. At higher levels of aggregation, much of the individual variability often cancels out. The PPI data in the published and underlying indexes are checked to identify any remaining uncertainty and detectable errors. We correct or re-estimate these, where possible.

## **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**

### **Producers price indexes of inputs (ie prices paid by producers)**

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

PPI-inputs 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.

PPI-inputs 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.

### **Producers price indexes of outputs (ie prices received by producers)**

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

PPI-outputs 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.

PPI-outputs 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.

PPI-inputs are available for all industries, while PPI-outputs 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**

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). ANZSIC was developed by Statistics NZ and the Australian Bureau of Statistics (ABS) in the 1990s. It aimed to reflect the structure of the Australian and New Zealand economies in terms of economic activity and to improve comparability with international statistics.

In February 2006, we updated ANZSIC, completing a five-year joint Statistics NZ/ABS development project. This version is called ANZSIC 2006 (ANZSIC06).

From the March 2011 quarter onwards, we construct the PPI using ANZSIC06 as the basis for industry definition, and publish it using the New Zealand Standard Industrial Output Classification (see 'Industry publication level' below).

Previously, we constructed the PPI using the earlier version of ANZSIC (ANZSIC96).

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.

From the March 2011 quarter onwards, the ANZSIC06-based PPI is our official industry series. The existing ANZSIC96-based PPI has been discontinued on Infoshare, from the March 2012 quarter onwards.

## **Industry publication level**

The level of industry detail published 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.

## **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, in conjunction with the industry classification, we have introduced a system of annual updating of weights that use the SUT produced as part of annual national accounts. We now introduce updated PPI weights each March quarter. Therefore the March 2014 quarter introduced an updated weight reference period of the year to March 2011.

### **Price reference period**

The price reference period is the quarter that the latest quarter's prices are compared with in order to calculate indexes. As a part of updating the weight reference period (see above), our price reference period for the latest quarter is the December 2013 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 index reference period chosen.

## **Consistency with previous PPI series**

We used the previous ANZSIC96-based PPI series to provide a 'history' for each series of the new 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 new series references, which have 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 have reviewed the series appearing in the 'selected commodities table' (table 7). The updated selection has new 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, while NZSIOC is the published level for ANZSIC06.

## Contract indexation

Parties that engage in commercial contracts use a range of 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.

From the March 2011 quarter onwards, the ANZSIC06-based PPI is the official industry series produced by Statistics NZ. The existing ANZSIC96-based PPI has been discontinued on Infoshare, from the March 2012 quarter onwards.

## Foreign-currency prices

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

When calculating the PPI, we convert these currencies to New Zealand dollars 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 provided by these businesses, 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. The claims and funding rates we use in this calculation are sourced from the Reserve Bank of New

Zealand B5 weighted average interest rates of NZD funding and claims: Registered banks, while the inflation adjustment is carried out using the all groups CPI.

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 New Zealand-dollar 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 New Zealand-dollar 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 New Zealand-dollar 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.

[See more information about the Producers Price Index](#)

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## Contacts

**For media enquiries contact:**

Chris Pike

Wellington 04 931 4600

**Email:** [info@stats.govt.nz](mailto:info@stats.govt.nz)

**For technical information contact:**

Jolene Chen or Suchindra Nanayakkara

Wellington 04 931 4600

**Email:** [info@stats.govt.nz](mailto:info@stats.govt.nz)

**For general enquiries contact our Information Centre:**

Phone: 0508 525 525 (toll free in New Zealand)

+64 4 931 4600 (outside New Zealand)

**Email:** [info@stats.govt.nz](mailto:info@stats.govt.nz)

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## Tables

The following tables are available in Excel format from the 'Downloads' box. If you have problems viewing the file, see [opening files and PDFs](#).

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

### 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

## Access more data on Infoshare

Infoshare allows you to organise data in the way that best meets your needs. You can view the resulting tables onscreen or download them.

### Use Infoshare

For this release, select the following categories from the Infoshare homepage:

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