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## Producers Price Index: March 2009 quarter

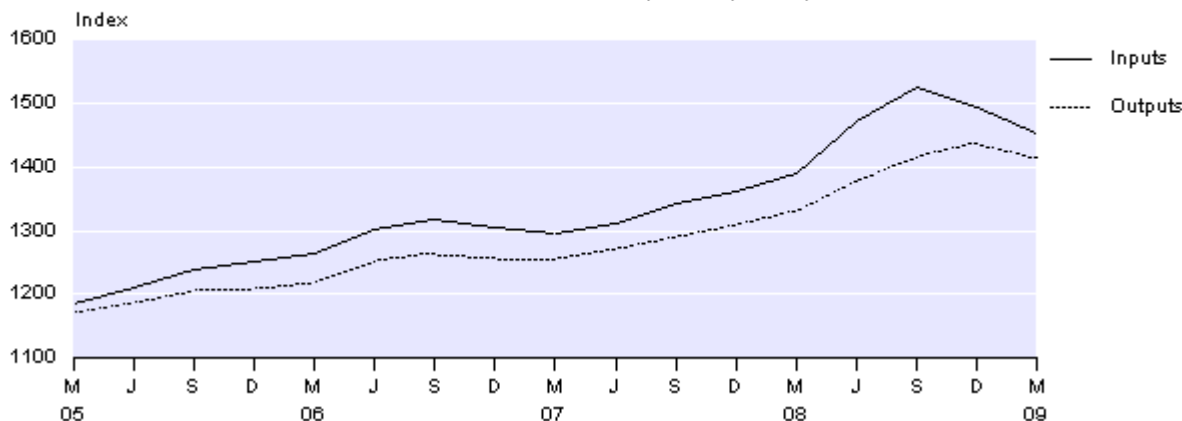
### Highlights

- The Producers Price Index (PPI) outputs index fell 1.4 percent.
- Output prices for dairy product manufacturing fell 24.3 percent.
- Output prices rose 6.5 percent between the March 2008 and March 2009 quarters.
- The PPI inputs index fell 2.5 percent.
- Input prices for wholesale trade fell 12.7 percent.
- Input prices rose 4.7 percent between the March 2008 and March 2009 quarters.

### Producers Price Index

All industries – inputs and outputs

Base: December 1997 quarter (=1000)



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See also [Producers Price Index: March 2009 quarter – Media release](#).

# Commentary

## Outputs

Output prices for all industries in the PPI fell 1.4 percent in the March 2009 quarter, following rises of 1.4 percent in the December 2008 quarter and 2.8 percent in the September 2008 quarter. Dairy product manufacturing, wholesale trade, and petroleum, coal and basic chemical manufacturing were the major contributors to the fall in the latest quarter.

<b>Producers Price Index Outputs</b> <i>All industries</i>		
Quarter	Percentage change from previous quarter	Percentage change from same quarter, previous year
Mar 2007	-0.2	3.1
Jun 2007	1.2	1.4
Sep 2007	1.6	2.0
Dec 2007	1.4	4.0
Mar 2008	1.8	6.1
Jun 2008	3.5	8.5
Sep 2008	2.8	9.8
Dec 2008	1.4	9.9
Mar 2009	-1.4	6.5

The dairy product manufacturing index (down 24.3 percent) had the greatest downward impact on the output prices in the March 2009 quarter. The fall in the latest quarter is the highest recorded since the series began in the June 1994 quarter, and it followed a 19.2 percent rise in the December 2008 quarter and 2.5 percent fall in the September 2008 quarter. The main driver of the index in the latest quarter was lower prices for exported dairy products such as skim milk powder, cheese and butter.

In the year to the March 2009 quarter, the dairy product manufacturing index fell 12.4 percent. This compares with a 50.4 percent rise in the year to the March 2008 quarter and a 3.4 percent fall in the year to the March 2007 quarter.

The wholesale trade index, which made the second-largest contribution to the decrease in output prices, fell 3.8 percent in the March 2009 quarter, following the same percentage fall in the December 2008 quarter and a 4.3 percent rise in the September 2008 quarter. The main contributor to the fall in the latest quarter came from the petroleum products wholesaling index, which was driven down by lower fuel prices (mainly due to lower crude oil prices).

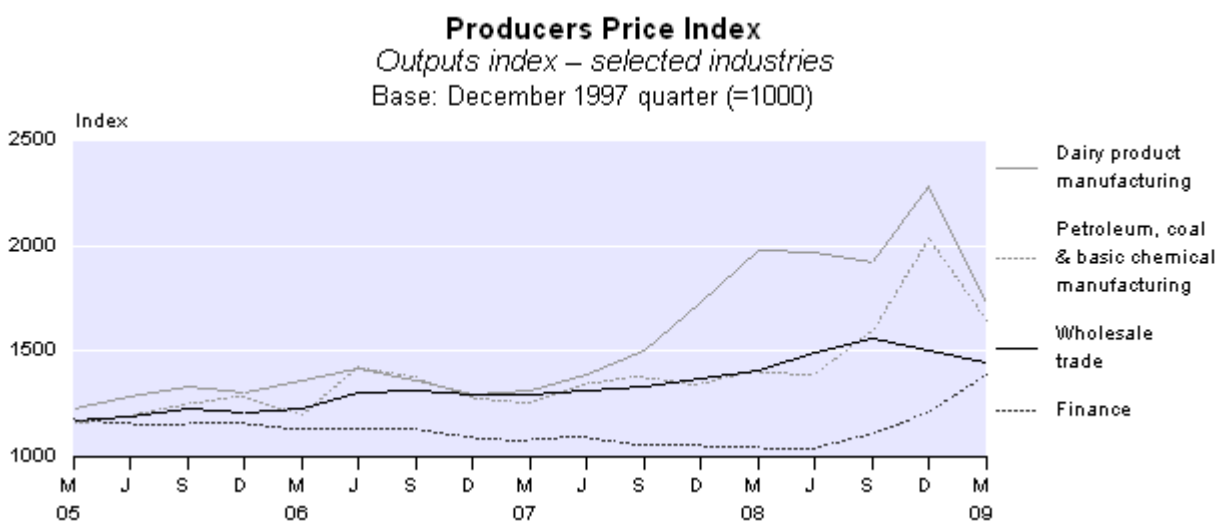
On an annual basis, the wholesale trade index rose 2.3 percent in the year to the March 2009 quarter compared with rises of 8.9 percent and 5.1 percent in the years to the March 2008 and March 2007 quarters, respectively.

The petroleum, coal and basic chemical manufacturing index (down 18.8 percent) exerted a downward impact on the fall in output prices in the March 2009 quarter. This fall follows rises of 27.2 percent in the December 2008 quarter and 14.9 percent in the September 2008 quarter. The latest quarterly fall is the largest in this index since the series began in the June 1994 quarter. Major decreases were recorded in the prices of phosphatic fertiliser and urea manufacturing, which were driven by lower suppliers' prices and competition.

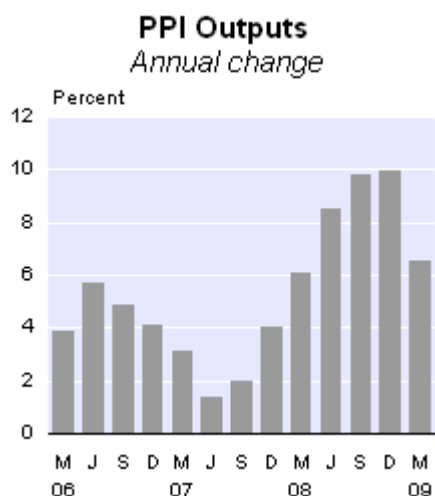
In the year to the March 2009 quarter, the petroleum, coal and basic chemical manufacturing index rose 16.8 percent, following rises of 12.3 percent in the year to the March 2008 quarter, and 4.3 percent in the year to the March 2007 quarter.

In the March 2009 quarter, the major offsetting effect on the output prices came from the finance index (up 14.6 percent). This index is dominated by 'financial intermediation services indirectly measured' (FISIM), which is a notional measure of the margins that financial intermediaries make on their borrowing and lending operations. In the latest quarter, this margin increased due to the rates for borrowing falling more than the rates for lending. The increase in the finance index followed rises of 10.0 percent in the December 2008 quarter and 6.1 percent in the September 2008 quarter.

On an annual basis, the finance index rose 32.1 percent in the year to the March 2009 quarter compared with falls of 2.0 percent and 4.9 percent in the years to the March 2008 and March 2007 quarters, respectively. Both the quarterly and annual rises in the finance index in the March 2009 quarter were the largest recorded since the series began in the June 1994 quarter.



In the year to the March 2009 quarter, the PPI outputs index rose 6.5 percent compared with rises of 6.1 percent in the year to the March 2008 quarter and 3.1 percent in the year to the March 2007 quarter.



## Inputs

Input prices for all industries fell 2.5 percent in the March 2009 quarter, following a 2.2 percent fall in the December 2008 quarter and a 3.7 percent rise in the September 2008 quarter. The fall in the latest quarter is the largest since the series began in the December 1977 quarter.

<b>Producers Price Index Inputs</b> <i>All industries</i>		
Quarter	Percentage change from previous quarter	Percentage change from same quarter, previous year
Mar 2007	-0.7	2.5
Jun 2007	1.2	0.8
Sep 2007	2.4	1.9
Dec 2007	1.3	4.3
Mar 2008	2.1	7.3
Jun 2008	6.0	12.3
Sep 2008	3.7	13.6
Dec 2008	-2.2	9.7
Mar 2009	-2.5	4.7

The largest contribution to the overall fall in the PPI inputs index came from the wholesale trade index (down 12.7 percent). The fall followed an 11.7 percent decrease in the December 2008 quarter and rises of 8.3 percent and 9.0 percent in the September 2008 and June 2008 quarters, respectively. Lower prices for imported crude oil, a major input to petroleum product wholesaling, were the main drivers of this fall.

In the year to the March 2009 quarter, the wholesale trade index fell 8.9 percent, compared with a 13.4 percent rise in the year to the March 2008 quarter and a 0.1 percent rise in the year to the March 2007 quarter.

The second-largest contributor to the fall in the PPI inputs index was a 14.4 percent decrease in the air transport index. This decrease is the largest since the series began in the December 1997 quarter. The latest fall followed a 10.3 percent fall in the December 2008 quarter, and rises of 14.1 percent in the September 2008 quarter and 13.0 percent in the June 2008 quarter. Lower prices for various aviation fuels were a major cause of the decrease in the latest quarter.

In the year to the March 2009 quarter, the air transport index fell 1.1 percent. This contrasts with a 13.3 percent rise in the year to the March 2008 quarter and a 2.7 percent rise in the year to the March 2007 quarter.

Some fuel prices are lagged by one quarter in the PPI industry inputs indexes. Please see the 'Technical notes' section for information.

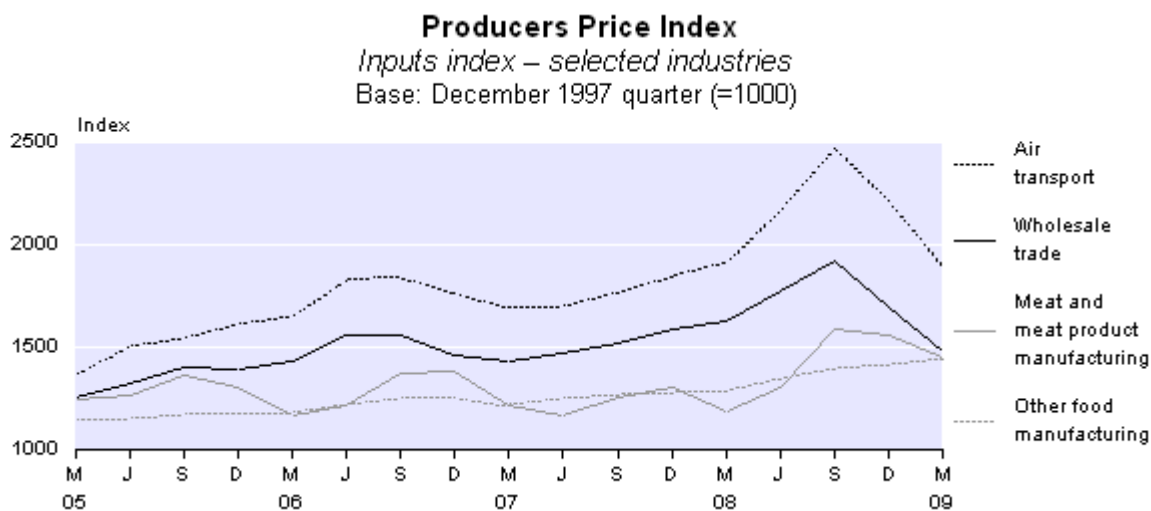
The third-largest contribution came from the meat and meat product manufacturing index, which was down 7.3 percent compared with falls of 8.6 percent in the March 2008 quarter and 12.5 percent in the March 2007 quarter. The latest quarterly fall was mainly a result of lower prices for prime beef livestock (see the 'Commodities' section).

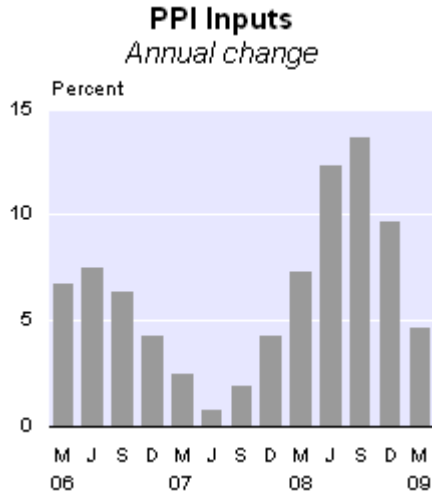
In the year to the March 2009 quarter, the meat and meat product manufacturing index rose 21.9 percent. In comparison, this index fell 2.0 percent in the year to the March 2008 quarter and rose 4.0 percent in the year to the March 2007 quarter.

Other food manufacturing (up 1.8 percent) had a small offsetting effect on the overall fall in input prices. The latest rise in this index followed rises of 1.6 percent in the December 2008 quarter and 3.8 percent in the September 2008 quarter. Higher prices for fresh fish made a large contribution to the rise in the latest quarter. Supply and demand was the main reason cited by respondents.

In the year to the March 2009 quarter, the other food manufacturing index rose 12.2 percent. This is the largest annual movement since the series began in the June 1994 quarter.

Input prices for all industries rose 4.7 percent in the year to the March 2009 quarter. This compares with rises of 7.3 percent in the year to the March 2008 quarter and 2.5 percent in the year to the March 2007 quarter.





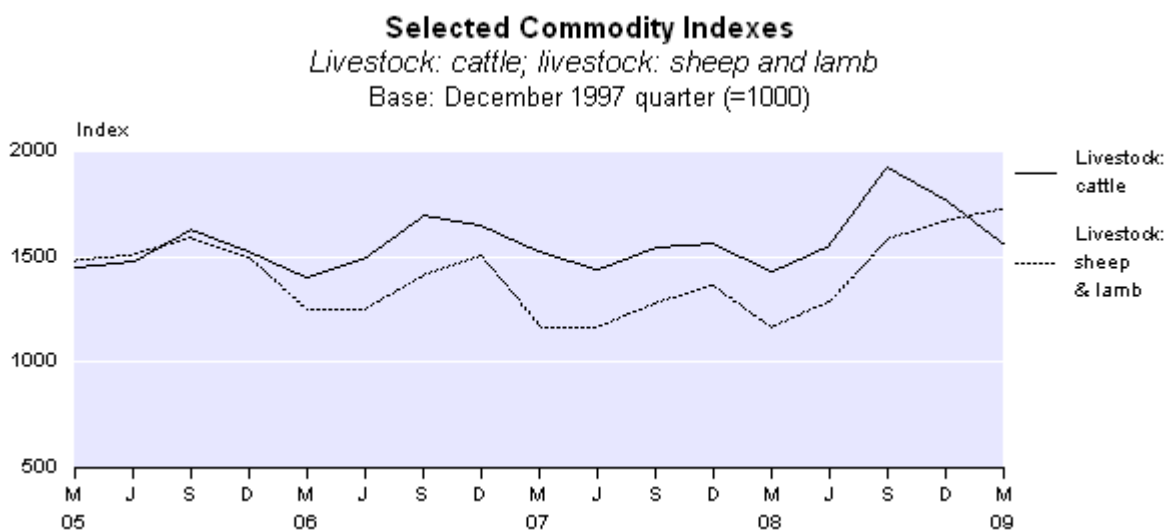
## Commodities

The livestock: sheep and lamb index rose 3.4 percent in the March 2009 quarter, following rises of 5.1 percent in the December 2008 quarter and 22.6 percent in the September 2008 quarter. The latest quarterly rise was mainly driven by higher demand and by shortage in the supply for stock of store lamb, hoggets and ewes.

On an annual basis, the livestock: sheep and lamb index rose 47.1 percent in the year to the March 2009 quarter and fell 0.7 percent in the year to the March 2008 quarter.

The livestock: cattle index fell 11.4 percent in the March 2009 quarter, following an 8.1 percent fall in the December 2008 quarter and a 23.8 percent rise in the September 2008 quarter. The decline in the latest quarter resulted from lower prices for prime steers and bulls.

On an annual basis, the livestock: cattle index rose 9.3 percent in the year to the March 2009 quarter and fell 6.2 percent in the year to the March 2008 quarter.

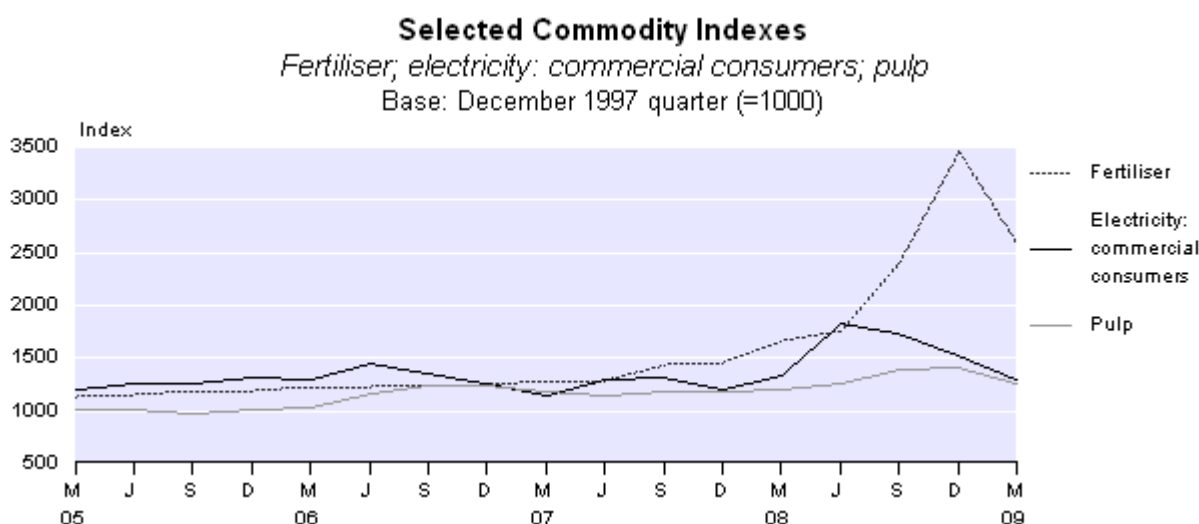


One of the largest downward movers among the published commodity indexes was fertiliser (down 25.5 percent), which showed rises of 44.4 percent in the December 2008 quarter and 36.4 percent in the September 2008 quarter. The latest quarterly fall is the largest since the series began in the June 1994 quarter and was mainly driven by decreased prices for various phosphatic fertilisers (due to lower suppliers' prices and competition).

On an annual basis, the fertiliser index recorded rises of 54.6 percent in the year to the March 2009 quarter, and 30.8 percent in the year to the March 2008 quarter.

The pulp index fell 10.0 percent in the March 2009 quarter – the largest quarterly fall since the March 2001 quarter when it fell 17.4 percent. The latest fall follows rises of 1.1 percent in the December 2008 quarter and 9.8 percent in the September 2008 quarter. The latest quarterly movement was driven by lower prices for exports of chemical pulp (due to falling demand and lower international prices).

On an annual basis, the pulp index recorded rises of 5.0 percent in the year to the March 2009 quarter and 1.3 percent in the year to the March 2008 quarter.



The electricity for commercial users index fell 14.8 percent in the latest quarter, following falls of 11.6 percent in the December 2008 quarter, and 5.3 percent in the September 2008 quarter. Increased supply in the hydro lakes and lower spot market prices (associated with lower demand in summer) led to lower prices in the current quarter.

On an annual basis, the electricity for commercial users index fell 2.5 percent in the year to the March 2009 quarter, and rose 15.6 percent in the year to the March 2008 quarter.

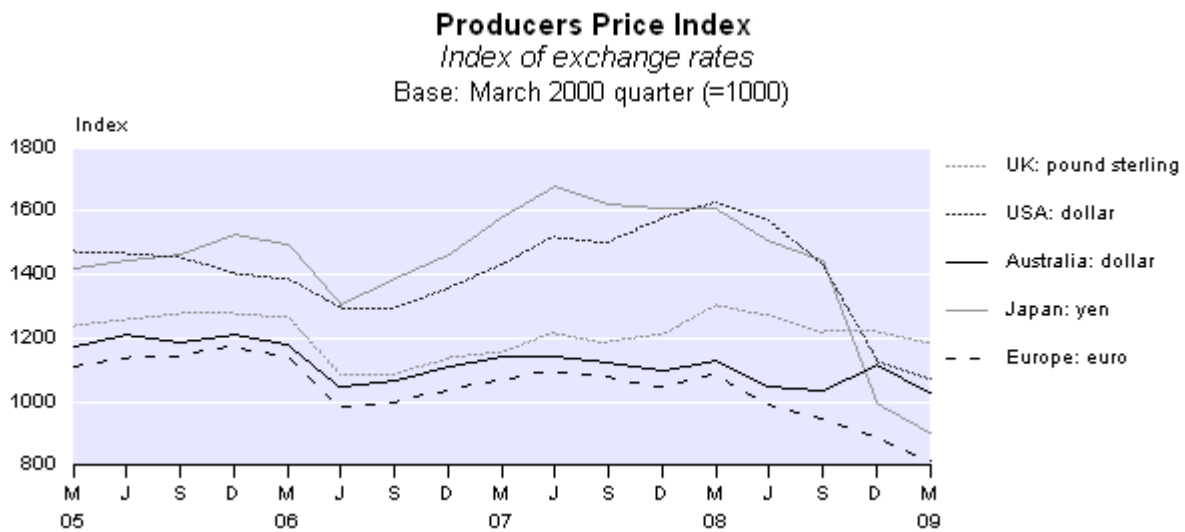
## Impact of exchange rates

When calculating the PPI, prices collected on the fifteenth day of the middle month in the quarter are generally used 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 New Zealand dollar depreciated against all key currencies of the country's five major trading partners in the March 2009 quarter. The table below shows changes in the value of the New Zealand dollar in foreign currency denominations from the December 2008 quarter to the March 2009 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 November 2008	0.5447	0.3732	0.8588	52.0542	0.4363
15 February 2009	0.5155	0.3607	0.7916	47.1833	0.4006
Percentage change	-5.4	-3.3	-7.8	-9.4	-8.2

**Source:** Westpac Banking Corporation.



## Price index developments

Statistics New Zealand began work in 2004 on a progressive redevelopment of PPIs. This involves re-evaluating the items that are priced and the weights that are applied to them. At this stage, the redevelopment applies only to output indexes. New input indexes will be finalised once all the output indexes have been redeveloped.

The following index within the construction index (PPIQ.SUE) has been redeveloped and took effect from the March 2009 quarter:

- Construction trade services.

For more information, please see the 'Technical notes' section.

For technical information contact:  
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### Next release ...

*Producers Price Index: June 2009 quarter* will be released on  
19 August 2009.

## Technical notes

### Note about fuel in the PPI inputs indexes

Fuel is a component of all the PPI industry inputs indexes. For these indexes, there are variations in the types of fuel included, the source and frequency of price collection, and the timing of when price movements are shown. In a number of indexes, the current practice (in place for more than a decade) has been to 'lag' by one quarter the movements for diesel and heavy fuel oil. For example, diesel and heavy fuel oil price movements that actually occurred in the September 2008 quarter were shown in the PPI road transport inputs index for the December 2008 quarter. On the other hand, petrol and light fuel oil price movements used in the PPI road transport inputs index are not lagged. Price movements for petrol and light fuel oil that occur in a particular quarter are shown in the PPI road transport inputs index for that quarter.

Statistics NZ has been undertaking a rolling review of the PPI industry outputs indexes and is about to commence a review of the PPI industry inputs indexes. The review of the PPI industry inputs indexes will include reviewing and updating the relative importance of the goods and services (and associated price samples) included in the indexes. The review of the PPI inputs indexes will include:

- updating the relative importance of diesel, fuel oil, petrol and other goods and services included in the index
- reviewing the sources and types of fuel prices included in the index
- reviewing the practice of lagging diesel and heavy fuel oil prices by one quarter.

If a decision is made to remove the one-quarter lag for diesel and heavy fuel oil price movements included in the PPI industry inputs indexes, the removal of the lag would be implemented at a time when fuel prices are relatively stable, so as not to cause undue disruption to the long-term level of the time series, or to the latest quarterly or annual movements.

The affected indexes are listed below:

- Mining – PPIQ.SNB
- Manufacturing – PPIQ.SNC
- Paper and paper product manufacturing – PPIQ.SNC08
- Printing, publishing and recorded media – PPIQ.SNC09
- Non-metallic mineral product manufacturing – PPIQ.SNC12
- Transport and storage – PPIQ.SNI
- Road transport – PPIQ.SNI01
- Water transport – PPIQ.SNI03
- Air transport – PPIQ.SNI04
- Rail, other transport and storage services – PPIQ.SNI09
- Personal and other services – PPIQ.SNQ
- Paper, printing and publishing – PPIQ.SNX08.

### Price index interpretation

Price indexes are used to measure the changes in the level of prices, not the actual level of the prices themselves. The Producers Price Index (PPI) measures prices relating to the production sector of the economy. By comparison, the Consumers Price Index measures prices relating to the household sector, and the Labour Cost Index measures prices in the labour market.

The PPI is made up of two types of indexes: the outputs index, which measures changes in the prices received by producers; and the inputs index, which measures changes in the cost of production (excluding labour and capital costs). The Farm Expenses Price Index (FEPI) measures price changes specific to the inputs into the farming industry.

## **PPI outputs index**

The outputs index measures changes in prices received by producers.

The outputs index covers the prices of:

- primary products
- manufactured goods
- revenue from renting and leasing
- the provision of services
- capital work undertaken by own employees
- margins on goods purchased for resale.

The outputs index excludes:

- interest 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 at a level corresponding to the prices received before the addition of commodity taxes or deduction of subsidies.

## **PPI inputs index**

The inputs index measures price changes in costs of production, excluding labour and depreciation costs.

The inputs index covers 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.

The inputs index excludes:

- wages and salaries (measured in the Labour Cost Index)
- capital expenditure/depreciation (measured in the Capital Goods Price Index)
- ACC levies, land tax, government licence fees, road user charges
- rates
- royalties, patent fees
- bad debts and donations.

GST is excluded when measuring input prices for 45 of the 47 industry input indexes. The assumption is made that those involved in activities in these industries are 'registered persons, or businesses' that provide 'taxable supply'. GST paid on intermediate consumption is recoverable under the GST credit offset system and therefore is effectively not part of the ultimate input price. Exceptions include the finance, and the ownership of owner-occupied dwellings indexes, which include some 'GST exempt' and non-recoverable GST activities. Interest costs are excluded because they are regarded as a cost of capital and not as a payment for goods or a service.

Government charges are excluded when they are used to raise tax revenue rather than the payment for goods or a service purchased from the government. This is consistent with the System of National Accounts.

## **Farm Expenses Price Index**

The Farm Expenses Price Index (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 are not solely dependent on price movements, but are also dependent on factors that affect productivity, such as technological advances, management efficiency and climate fluctuations.

Capital expenditure and depreciation are not covered. (For price indexes of capital expenditure, refer to the Capital Goods Price Index.)

The Farm Expenses Price Index is now produced for the March quarter of each year only.

## **Coverage**

The indexes are calculated quarterly from price quotes, which are collected mainly by postal survey. Approximately 13,000 individual commodity items are surveyed from about 3,000 respondents. Prices are generally collected each quarter, according to those prevailing on the fifteenth of the middle month of the quarter being measured. Prices may be obtained monthly or annually, depending on the nature of the item.

## **Calculation**

The PPI and FEPI are Laspeyres base-weighted price index series. The weightings are determined by the relative importance of commodities and businesses within the industry or industry group. Information from various surveys and censuses and other sources is used to determine the weightings. Further information about this is available on request.

## **Data quality**

All care has been used in the surveying, processing, analysing and extracting of data for the PPI. However, all data are subject to possible statistical uncertainty. These variations may result, for example, from uncertainty introduced during non-response imputation, reporting difficulties for respondents, or errors made during processing survey results.

Statistics New Zealand adopts procedures to detect and minimise avoidable variation and eliminate errors, but they may still occur and they are not quantifiable. At higher levels of aggregations, much of the individual variability often cancels out. The PPI data have been checked for the published indexes, and also for underlying indexes, to identify any remaining uncertainty and detectable errors. These are corrected or re-estimated, where possible.

Ongoing work to redevelop, reweight and enhance price indexes has the potential to change the underlying indexes. Accordingly, these data may be subject to revisions in the future.

## **Industry classification**

The PPI inputs and outputs indexes cover all the major market industry groups as defined by the Australian and New Zealand Standard Industrial Classification 1993 (ANZSIC). Index numbers for industry indexes based on this classification are available from the June 1994 quarter.

The all industries inputs index is made up of 47 industry indexes. Outputs indexes are not available for public administration and defence, education, health and community services, cultural and recreational services, and personal and other services industries, as reliable estimates of output prices have yet to be developed.

## **Customised price indexes**

Statistics NZ has a large number of unpublished sub-industry and representative commodity price indexes. These indexes are available at a small charge to cover dissemination costs.

## **Back series of indexes**

Statistics NZ will provide tables of the complete back series of the current PPI and FEPI indexes on request.

## **Price index development**

The following is a detailed analysis of the output indexes affected by redevelopments that took place in the March 2009 quarter.

### **Construction trade services**

The index in this publication that is affected by the change is:  
PPIQ.SUE – Construction.

Information used to redevelop this index is based on the Annual Enterprise Survey and companies involved in the industry.

The most significant change since the industry was last redeveloped in 1997 has been a decrease in electrical, fire and security installation work, whilst a general increase in all other trades occurred. This change can be attributed to more accurate classification of the construction trades.

<b>Output Commodity Weights for Construction Trade Services</b> <i>March 2009 quarter</i>	
<b>Commodity</b>	<b>Weight (%)</b>
Building completion and finishing work	26.32
Installation trade work – electrical, heating, fire and security	23.96
Pre-erection work at construction sites	13.82
Special trade construction work	12.07
Installation work, water plumbing, drainlaying and gasfitting	11.67
General construction work for buildings – non-residential	6.14
Construction work for civil engineering	6.02

Note: percentages may not sum to 100 due to rounding.

For further information on the redevelopment, please contact Patricia Jennings at [info@stats.govt.nz](mailto:info@stats.govt.nz).

## **More information**

For more information, follow the [link](#) from the Technical notes of this release on the Statistics New Zealand website.

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## **Timing**

Timed statistical releases are delivered using postal and electronic services provided by third parties. Delivery of these releases may be delayed by circumstances outside the control of Statistics NZ. Statistics NZ accepts no responsibility for any such delays.

## Tables

The following tables are printed with this Hot Off The Press and can also be downloaded from the Statistics New Zealand website in Excel format. If you do not have access to Excel, you may use the [Excel file viewer](#) to view, print and export the contents of the file.

### 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 – selected industries
6. Producers Price Index, inputs – selected industries
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 the previous year
2. Farm Expenses Price Index, sheep and beef farms – index numbers
3. Farm Expenses Price Index, dairy farms – index numbers
4. Farm Expenses Price Index, horticultural farms – index numbers
5. Farm Expenses Price Index, cropping and other farms – index numbers