

Embargoed until 10:45am – 14 November 2007

## Producers Price Index: September 2007 quarter

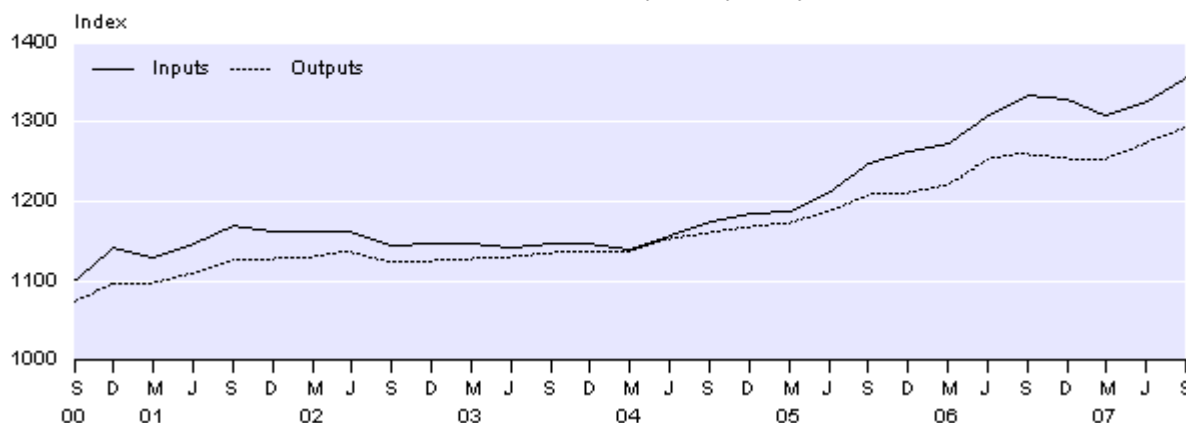
### Highlights

- The PPI outputs index rose 1.6 percent in the September 2007 quarter.
- Output prices for dairy cattle farming rose 28.8 percent in the September 2007 quarter.
- Output prices rose 2.1 percent between the September 2006 and September 2007 quarters.
- The PPI inputs index rose 2.3 percent in the September 2007 quarter.
- Input prices for dairy product manufacturing rose 26.5 percent in the September 2007 quarter.
- Input prices rose 1.7 percent between the September 2006 and September 2007 quarters.

### Producers Price Index

All industries – inputs and outputs

Base: December 1997 quarter (=1000)



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There is a companion Media Release published – [Producers Price Index: September 2007 quarter](#).

# Commentary

## Outputs

Output prices for all industries in the PPI increased 1.6 percent in the September 2007 quarter. This compared with a 1.2 percent increase in the June 2007 quarter and a 0.2 percent decrease in the March 2007 quarter.

### Producers Price Index *Outputs – all industries*

Quarter	Percentage change from previous quarter	Percentage change from same quarter, previous year
Sep 2005	1.8	4.0
Dec 2005	0.2	3.7
Mar 2006	0.7	4.0
Jun 2006	2.8	5.6
Sep 2006	1.0	4.9
Dec 2006	-0.5	4.1
Mar 2007	-0.2	3.1
Jun 2007	1.2	1.5
Sep 2007	1.6	2.1

The most significant upward contribution to the PPI outputs index in the September 2007 quarter was the dairy cattle farming index (up 28.8 percent). This was the largest quarterly increase since the series began in the June 1994 quarter. It is the first quarterly increase in the dairy cattle farming index since the September 2006 quarter, and compares with decreases of 0.6 percent and 1.6 percent in the June 2007 and the March 2007 quarters, respectively. The increase in the latest quarter was driven by increased farmgate prices for wholemilk solids. The marked quarterly increase in the index led to a record rise of 25.7 percent in the dairy cattle farming index in the year to the September 2007 quarter. It compares with increases of 5.0 percent and 1.7 percent in the year to the September 2006 quarter and the year to the September 2005 quarter, respectively.

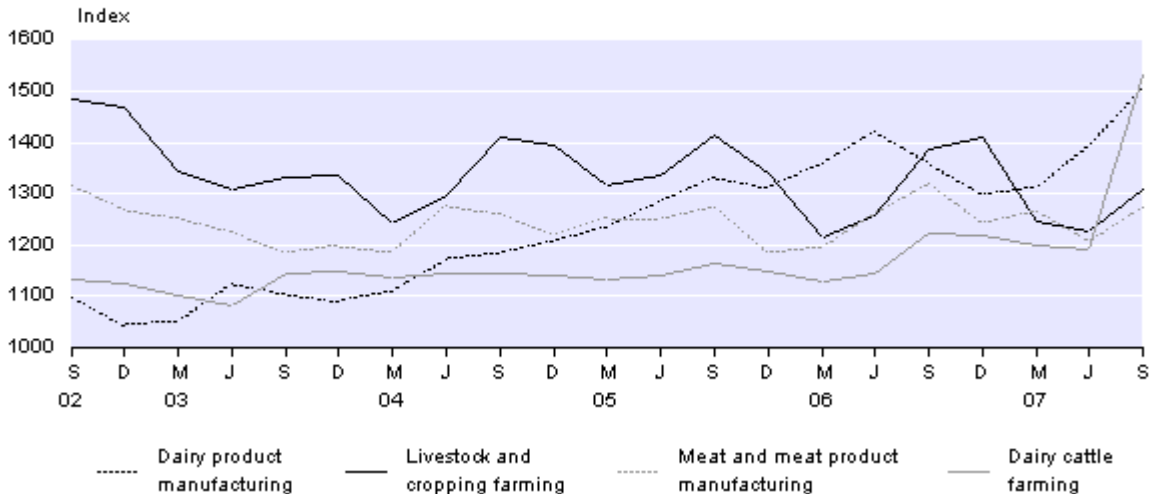
In the September 2007 quarter, the dairy product manufacturing index rose 8.2 percent, the second most significant upward contribution to the PPI outputs index. This was driven by higher prices of other dairy products, mainly butter and skim milk powder, due to supply shortages, world market prices and the depreciation of the exchange rate. The latest quarterly rise is the largest since an 11.6 percent increase in the June 2002 quarter, and follows increases of 6.2 percent and 1.2 percent in the June and the March 2007 quarters, respectively. In the year to the September 2007 quarter, the dairy product manufacturing index increased 11.1 percent, following increases of 2.0 percent and 12.5 percent in the year to the September 2006 quarter and the year to the September 2005 quarter, respectively.

Other significant upward contributions to the PPI outputs index came from the livestock and cropping farming index (up 6.8 percent) and the meat and meat product manufacturing index (up 5.5 percent). This quarter's rise in the livestock and cropping farming index was the first increase since December 2006 quarter. The index rise was driven mainly by higher prices of sheep and lamb, while increased prices for cattle and calves also contributed to rise. The meat and meat product manufacturing index rose mainly due to higher prices for frozen sheep meat.

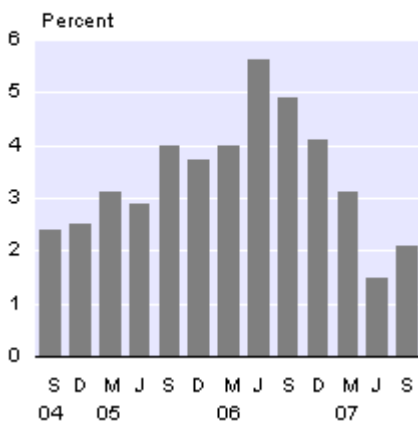
In the September 2007 quarter, some offsetting impact on the PPI outputs index came from a few indexes, including the finance, forestry and logging, and electricity generation and supply indexes.

In the year to the September 2007 quarter, the PPI outputs index rose 2.1 percent. This followed rises of 4.9 percent in the year to the September 2006 quarter and 4.0 percent in the year to the September 2005 quarter.

**Producers Price Index**  
*Outputs index – selected industries*  
 Base: December 1997 quarter (=1000)



**PPI Outputs**  
*Annual percentage change*



## Inputs

Input prices for all industries in the PPI rose 2.3 percent in the September 2007 quarter, following a rise of 1.3 percent in the June 2007 quarter and a 1.5 percent fall in the March 2007 quarter.

### Producers Price Index *Inputs – all industries*

Quarter	Percentage change from previous quarter	Percentage change from same quarter, previous year
Sep 2005	2.8	6.0
Dec 2005	1.3	6.4
Mar 2006	0.9	7.1
Jun 2006	2.8	8.0
Sep 2006	1.8	7.0
Dec 2006	-0.4	5.2
Mar 2007	-1.5	2.7
Jun 2007	1.3	1.2
Sep 2007	2.2	1.7

The most significant upward contribution to the PPI inputs index came from a 26.5 percent increase in the dairy products manufacturing index. This is the largest quarterly increase recorded in the index since the series began in the June 1994 quarter and follows slight increases of 0.6 percent and 0.3 percent in the June 2007 and March 2007 quarters, respectively. Increasing prices for wholemilk was the significant driver behind the rise in the dairy products manufacturing index this quarter. Annually, from the September 2006 quarter to the September 2007 quarter, the dairy products manufacturing index recorded a record annual increase of 27.3 percent. This compares with rises of 5.1 percent and 1.8 percent in the years to the September 2006 and September 2005 quarters, respectively.

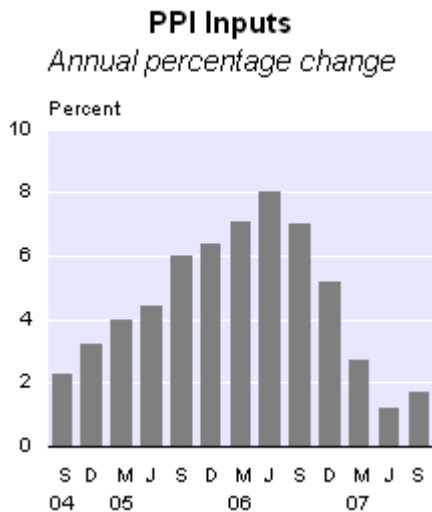
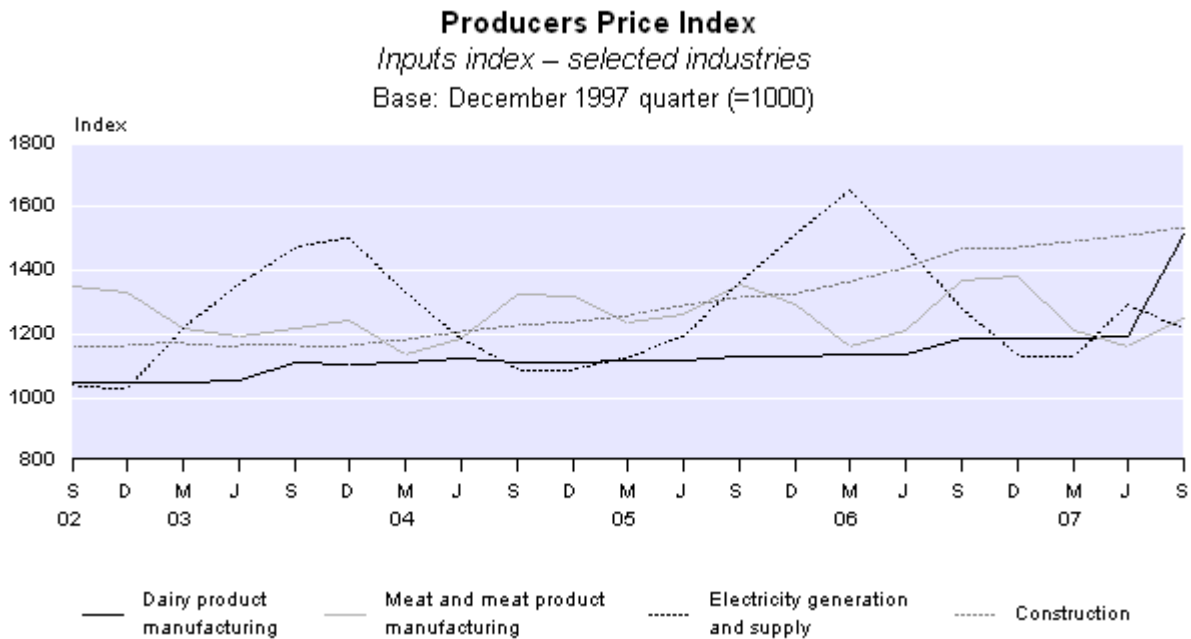
The meat and meat product manufacturing index (up 7.3 percent) was the second most significant driver for the rise in input prices in the September 2007 quarter. This latest quarterly increase followed consecutive falls of 3.7 percent and 12.5 percent in the June 2007 and March 2007 quarters, respectively. Respondents cited increased wholesale prices for both steers and lambs as reasons for the increase this quarter. Despite the latest quarterly increase, the meat and meat product manufacturing index fell 8.7 percent in the year to the September 2007 quarter. The rises in the September 2007 and December 2006 quarters were not large enough to offset the falls recorded in the June 2007 and March 2007 quarters.

Other significant upward contributions in the September 2007 quarter came from the construction index (up 1.7 percent) and the air transport index (up 4.0 percent). The latest quarterly increase in the construction index was due to a 1.9 percent increase in prices for construction trade services (mainly due to higher prices for painting and decorating services), while increased fuel prices (including aviation spirit) drove the increase in the air transport index.

The only significant downward contribution to partly offset the rise in input prices in the September 2007 quarter was the electricity generation and supply index, which fell 5.8 percent. This follows a rise of 14.3 percent in the June 2007 quarter and a fall of 0.7 percent in the March 2007 quarter. Lower prices for electricity generation was the main reason for the latest quarterly fall.

Annually, the electricity generation and supply index continued its recent trend, falling 5.2 percent in the year to the September 2007 quarter, its fifth consecutive annual decrease since a fall of 5.9 percent in the year to the September 2006 quarter.

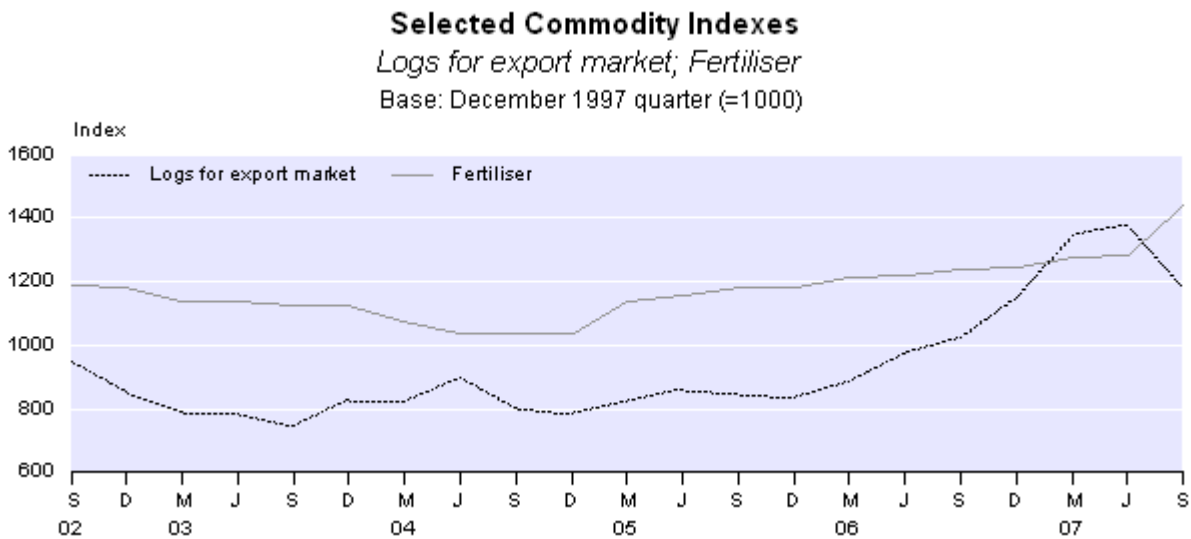
Input prices for all industries recorded a 1.7 percent increase in the year to the September 2007 quarter, compared with rises of 7.0 percent and 6.0 percent in the years to the September 2006 and September 2005 quarters, respectively.



## Commodities

In the September 2007 quarter, the logs for export market index fell 14.2 percent. This is the largest quarterly fall since the series began in the June 1997 quarter. Respondents cited international oversupply for logs and strong competition as the main reasons for this quarter's fall. In the year to the September 2007 quarter, the logs for export market index rose 15.6 percent.

The fertiliser index rose 12.6 percent in the September 2007 quarter, due to increased prices for phosphatic fertilisers due to higher suppliers' prices. This is the largest quarterly rise since the series began in the June 1994 quarter. In the year to the September 2007 quarter, the fertiliser index rose 16.6 percent.



The livestock: deer index rose 10.6 percent in the September 2007 quarter, following a rise of 3.2 percent in the June 2007 quarter and a fall of 5.7 percent in the March 2007 quarter. This rise was driven by higher wholesale prices for deer. In the year to the September 2007 quarter, the livestock: deer index rose 10.0 percent, compared with a fall of 1.4 percent in the year to the September 2006 quarter.

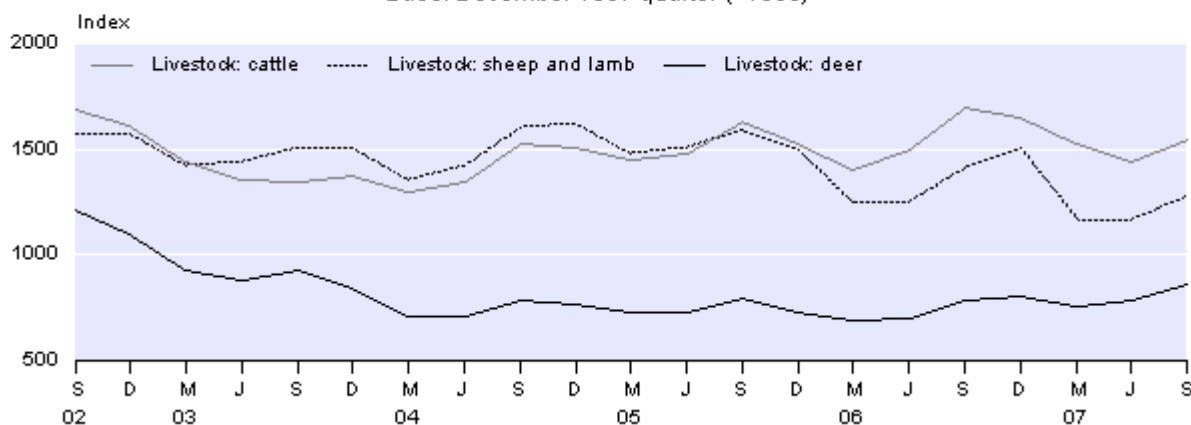
In the September 2007 quarter, the livestock: sheep and lamb and the livestock: cattle indexes had similar rises of 9.7 percent and 7.2 percent, respectively. The rise in the livestock: sheep and lamb index compares with falls of 0.9 percent in the June 2007 quarter and 22.0 percent in the March 2007 quarter. Higher wholesale prices for lamb was the main driver for the latest quarter rise. In the year to the September 2007 quarter, the livestock: sheep and lamb index fell 9.6 percent.

The rise in the livestock: cattle index is the first since the 13.4 percent rise in the September 2006 quarter. The rise in this quarter was influenced by increases in steer and bull prices at the farmgate. In the year to the September 2007 quarter, the livestock: cattle index fell 8.7 percent, compared with rises of 4.1 percent in the year to the September 2006 quarter, 6.8 percent in the year to the September 2005 quarter and 13.7 percent in the year to the September 2004 quarter.

### Selected Commodity Indexes

*Livestock: cattle; Livestock: sheep and lamb; Livestock: deer*

Base: December 1997 quarter (=1000)



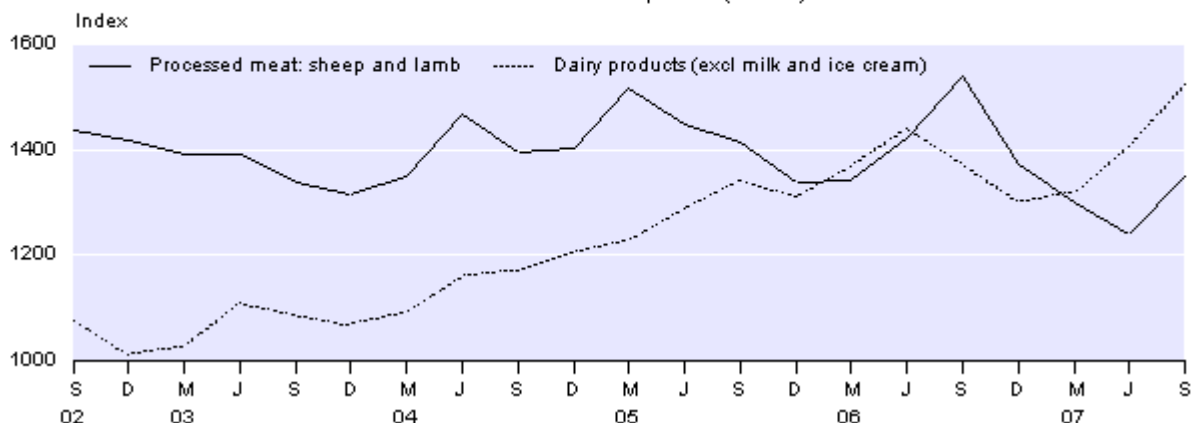
The processed meat: sheep and lamb index rose 8.7 percent in the September 2007 quarter, driven by higher export prices for frozen lamb cuts. This is the first quarterly rise since the 8.4 percent rise in the September 2006 quarter. In the year to the September 2007 quarter, the processed meat: sheep and lamb index fell 12.5 percent, compared with a rise of 9.1 percent in year to the September 2006 quarter.

The dairy products (excluding milk and ice cream) index increased 8.2 percent in the September 2007 quarter. This is the third consecutive quarterly rise since the December 2006 quarter, when the index fell 5.2 percent. The main reasons for the rise in this quarter were higher prices for butter and skim milk powder, and the depreciation of the New Zealand dollar. In the year to the September 2007 quarter, the dairy products (excluding milk and ice cream) index rose 10.9 percent.

### Selected Commodity Indexes

*Processed meat: sheep and lamb; Dairy products (excl milk and ice cream)*

Base: December 1997 quarter (=1000)



## Impact of exchange rates

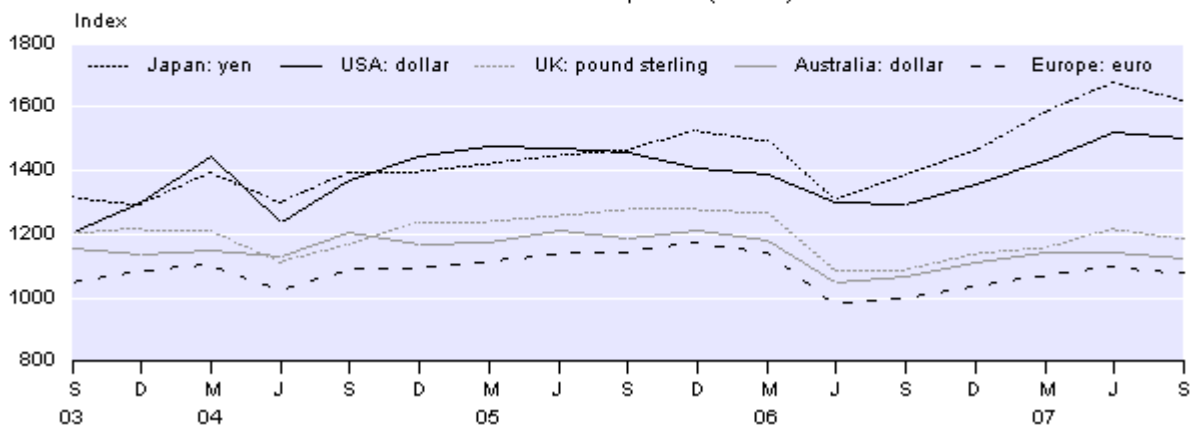
When calculating the PPI, prices collected on the fifteenth day of the middle month in the quarter are generally used to represent the entire quarter. Prices collected for imported goods are often denominated in foreign currencies. These are converted to New Zealand dollars using the exchange rate at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

The New Zealand dollar depreciated against the currencies of the country's five major trading partners in the September 2007 quarter. The table below shows changes in the value of the New Zealand dollar in foreign currency denominations from the June 2007 quarter to the September 2007 quarter.

**Exchange Rates**  
(Published by Westpac Bank)  
Bank selling rates for NZ\$1.00

	<b>USA</b> (NZ\$:US\$)	<b>UK</b> (NZ\$:pound sterling)	<b>Australia</b> (NZ\$:AUS\$)	<b>Japan</b> (NZ\$:yen)	<b>Europe</b> (NZ\$:euro)
15 May 2007	0.7319	0.3700	0.8799	87.7023	0.5385
15 August 2007	0.7221	0.3615	0.8657	84.7581	0.5314
Percentage change	-1.3	-2.3	-1.6	-3.4	-1.3

**Producers Price Index**  
*Index of exchange rates*  
Base: March 2000 quarter (=1000)





## Revisions

Following on from the revisions for PPI historical series published last quarter, a small number of further changes at industry group level have now been incorporated.

<b>Index</b>	<b>Series ref: PPIQ.</b>	<b>Quarter</b>	<b>As published</b>	<b>As revised</b>	<b>Index point effect</b>
Inputs to wholesale trade	SNF	December 2006	1674	1678	+4
Inputs to wholesale trade	SNF	March 2007	1540	1545	+5
Inputs to wholesale trade	SNF	June 2007	1593	1598	+5
Inputs to communication services	SNJ	June 2007	1090	1094	+4
Inputs to finance and insurance	SNK	June 2007	1230	1237	+7
Inputs to finance	SNK01	June 2007	1226	1233	+7
Inputs to insurance	SNK02	June 2007	1228	1233	+5
Inputs to services to finance and insurance	SNK03	June 2007	1259	1268	+9
Inputs to health and community services	SNO	June 2007	1216	1219	+3
Outputs to business services	SUL04	June 2007	1291	1295	+4

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# Technical notes

## 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 inputs 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 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 a good or service.

Government charges are excluded when they are used to raise tax revenue rather than the payment for a good or 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.)

## **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 Producers Price Index (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 NZ 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 has 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 have the potential to change the underlying indexes. Accordingly, this 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.

## **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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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.

### **Next release ...**

*Producers Price Index: December 2007 quarter* will be released on  
13 February 2008.

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## Tables

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

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[Producers Price Index: September 2007 quarter – All tables \(139 KB\) \(xls\)](#)



[Farm Expenses Price Index: September 2007 quarter – All tables \(57KB\) \(xls\)](#)