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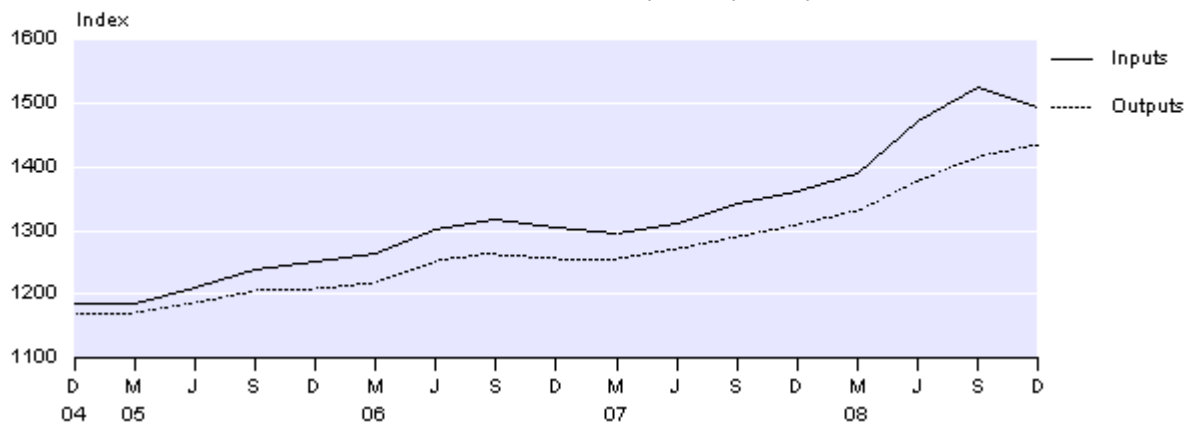
Producers Price Index: December 2008 quarter

Highlights

- The Producers Price Index (PPI) outputs index rose 1.4 percent.
- Output prices for dairy product manufacturing rose 19.2 percent.
- Output prices rose 9.9 percent between the December 2007 and December 2008 quarters.
- The PPI inputs index fell 2.2 percent.
- Input prices for wholesale trade fell 11.7 percent.
- Input prices rose 9.7 percent between the December 2007 and December 2008 quarters.

Producers Price Index

All industries – inputs and outputs
Base: December 1997 quarter (=1000)



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See also [Producers Price Index: December 2008 quarter – Media release.](#)

Commentary

Notes for this release

Please refer to the Producers Price Index quality improvements section at the end of this commentary for information about changes to methods, and revisions made to some historical Producers Price Index (PPI) time series.

Outputs

Output prices for all industries in the PPI rose 1.4 percent in the December 2008 quarter, following rises of 2.8 percent in the September 2008 quarter and 3.5 percent in the June 2008 quarter. Dairy product manufacturing, and petroleum, coal and basic chemical manufacturing were the major contributors to the rise in the latest quarter.

Producers Price Index Outputs <i>All industries</i>		
Quarter	Percentage change from previous quarter	Percentage change from same quarter, previous year
Dec 2006	-0.6	4.1
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

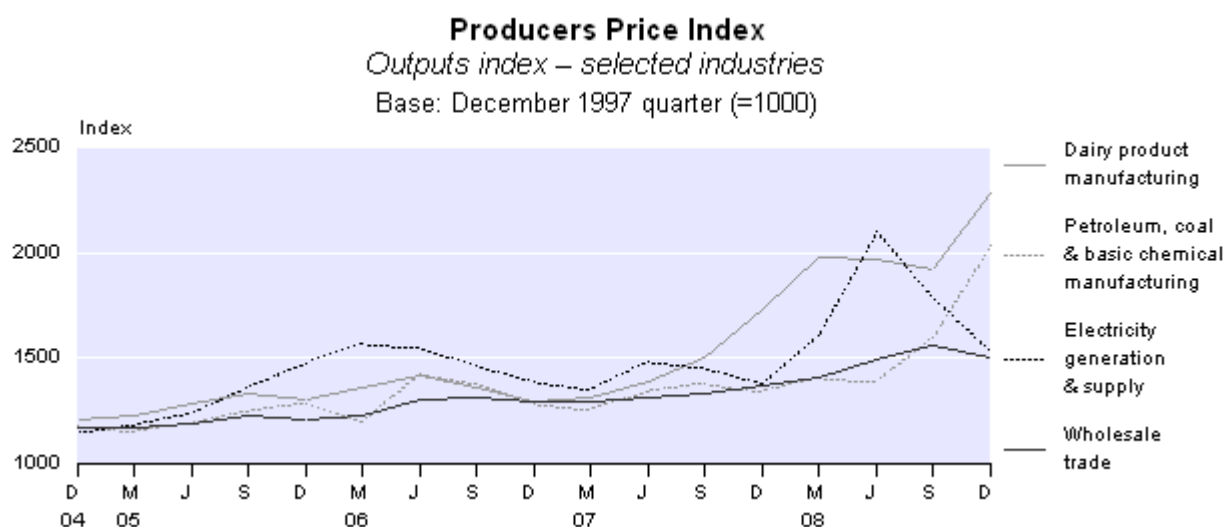
The dairy product manufacturing index (up 19.2 percent) made the largest contribution to the increase in output prices in the December 2008 quarter. The rise in this index followed relatively small falls of 2.5 percent in the September 2008 quarter and 0.4 percent in the June 2008 quarter. The main driver of the index in the latest quarter was higher prices for exported dairy products such as milk powder, butter, and cheese. Export prices declined in the December month, but were at higher levels during October and November, resulting in an overall quarterly increase. The depreciation of the New Zealand dollar against the US dollar was a major driver of these higher export prices.

In the year to the December 2008 quarter, the dairy products index rose 31.6 percent. This compares with a 33.9 percent rise in the year to the December 2007 quarter, and a 1.1 percent fall in the year to the December 2006 quarter.

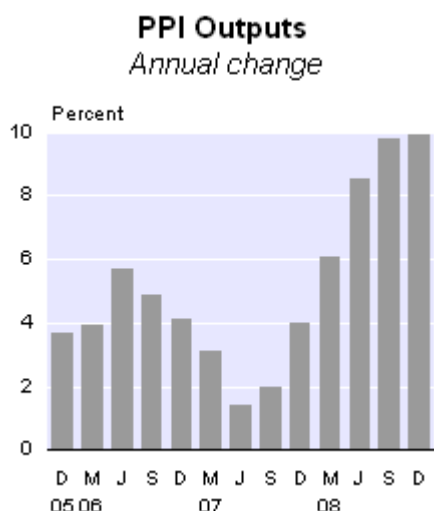
The petroleum, coal and basic chemical manufacturing index (up 27.2 percent) made the second-largest contribution to the increase in output prices in the December 2008 quarter. This rise follows a 14.9 percent rise in the September 2008 quarter, and a 1.6 percent fall in the June 2008 quarter. The December 2008 quarter increase was due to higher suppliers' prices for fertilisers and pesticides, which was driven by strong world demand for raw materials and freight. In the year to the December 2008 quarter, the petroleum, coal and basic chemical manufacturing index rose 51.2 percent, following rises of 4.5 percent in the year to the December 2007 quarter, and 0.3 percent in the year to the December 2006 quarter. The December 2008 quarterly and annual movements are the largest since this series began in the June 1994 quarter.

The electricity generation and supply index (down 14.4 percent in the latest quarter) made the largest downward contribution to the overall increase in output prices. This fall follows a 15.0 percent fall in the September 2008 quarter, and a 30.9 percent rise in the June 2008 quarter. The latest fall was driven by a decrease in prices for electricity generation and retail electricity to non-domestic users. Respondents cited lower spot market prices that were due to higher lake levels and reduced demand. In the year to the December 2008 quarter, the electricity generation and supply index rose 10.9 percent, compared with falls of 0.8 percent in the year to the December 2007 quarter and 6.0 percent in the year to the December 2006 quarter.

The wholesale trade index fell 3.8 percent in the December 2008 quarter, following rises of 4.3 percent in the September 2008 quarter, and 6.0 percent in the June 2008 quarter. The main contributor to the fall in the latest quarter was the mineral, metal and chemical wholesaling index, which was driven down by lower fuel prices, a major contributor to this index. On an annual basis, the index rose 9.5 percent, compared with smaller rises of 5.9 percent and 6.6 percent in the years to the December 2007 and December 2006 quarters, respectively.



In the year to the December 2008 quarter, the PPI outputs index rose 9.9 percent, compared with relatively smaller rises of 4.0 percent in the year to the December 2007 quarter, and 4.1 percent in the year to the December 2006 quarter.



Inputs

Input prices for all industries in the PPI decreased 2.2 percent in the December 2008 quarter, following increases of 3.7 percent in the September 2008 quarter and 6.0 percent in the June 2008 quarter. The fall in the latest quarter was the first since the 0.7 percent fall in the March 2007 quarter.

Producers Price Index Inputs <i>All industries</i>		
Quarter	Percentage change from previous quarter	Percentage change from same quarter, previous year
Dec 2006	-1.1 R	4.3 R
Mar 2007	-0.7 R	2.5 R
Jun 2007	1.2 R	0.8 R
Sep 2007	2.4 R	1.9 R
Dec 2007	1.3 R	4.3 R
Mar 2008	2.1 R	7.3
Jun 2008	6.0 R	12.3 R
Sep 2008	3.7	13.6
Dec 2008	-2.2	9.7

R revised

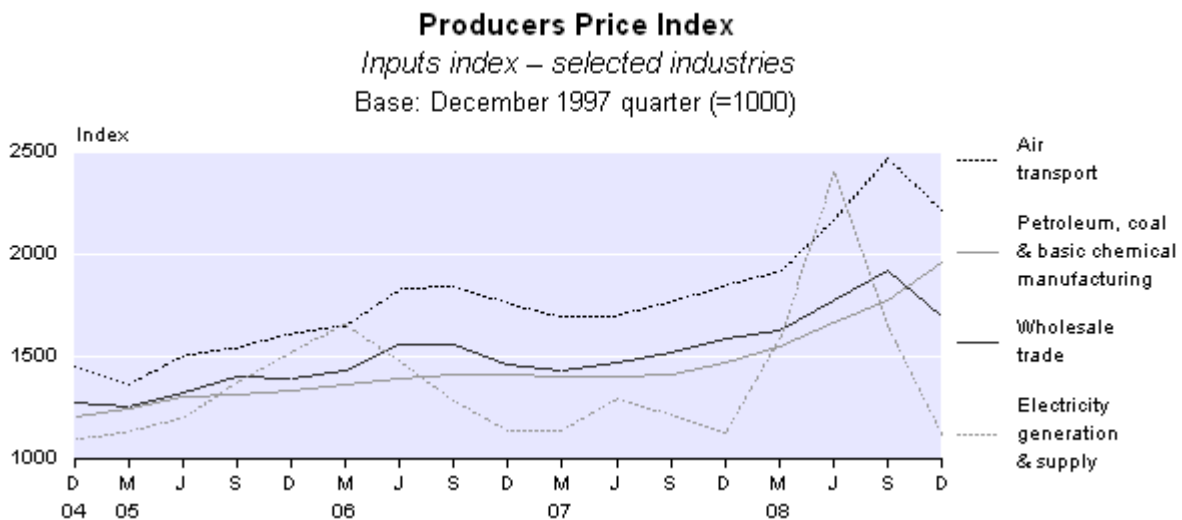
The wholesale trade index (down 11.7 percent) made the largest contribution to the overall fall in the PPI inputs index. The fall followed rises of 8.3 percent in the September 2008 quarter and 9.0 percent in the June 2008 quarter. Lower prices for imported crude oil, a major input to fuel wholesaling, was the main driver of this fall. In the year to the December 2008 quarter, the wholesale trade index rose 6.8 percent. This compares with rises of 8.4 percent in the year to the December 2007 quarter and 5.0 percent in the year to the December 2006 quarter.

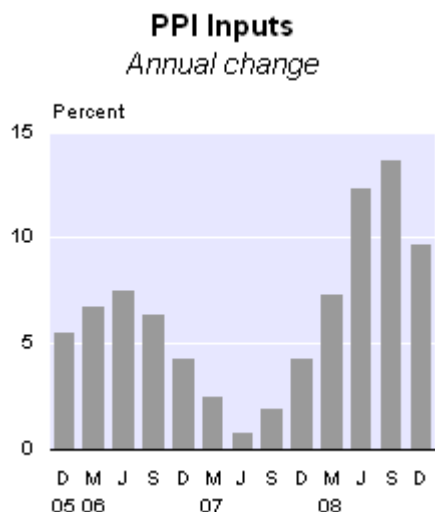
The second-largest contributor to the fall in the PPI inputs index was a 32.3 percent fall in the electricity generation and supply index. This fall followed a 31.5 percent fall in the September 2008 quarter, and rises of 50.8 percent and 41.7 percent in the June 2008 and March 2008 quarters, respectively. The purchase of bulk electricity occurred at lower prices, due to reductions in spot market prices, lower demand, and an increase in the hydro lake levels (as cited by respondents). In the year to the December 2008 quarter, the electricity generation and supply index fell 0.9 percent, compared with falls of 1.4 percent in the year to the December 2007 quarter, and 25.0 percent in the year to the December 2006 quarter.

The third-most significant contributor to the fall in input prices was the air transport index (down 10.3 percent). This index fell for the first time since the March 2007 quarter, when a 4.3 percent fall was recorded. Driving down this index in the latest quarter were lower prices for fuel. In the year to the December 2008 quarter, the air transport index rose 20.5 percent, compared with smaller rises of 4.0 percent in the year to the December 2007 quarter and 9.6 percent in the year to the December 2006 quarter.

Of all the indexes that rose in the December 2008 quarter, the one that had the largest offsetting effect on the overall fall in input prices was the petroleum, coal and basic chemical manufacturing index (up 10.1 percent). This latest quarterly rise followed rises of 6.9 percent in the September 2008 quarter and 7.6 percent in the June 2008 quarter. Contributing to the rise in this index were higher prices for the materials used in the manufacture of phosphatic fertilisers, partly as a result of high worldwide demand. In the year to the December 2008 quarter, the petroleum, coal and basic chemical manufacturing index rose 33.5 percent. Both the quarterly and the annual movements are the largest since the series began in the June 1994 quarter.

Input prices for all industries rose 9.7 percent in the year to the December 2008 quarter. This compares with 4.3 percent rises in the years to both the December 2007 and December 2006 quarters.

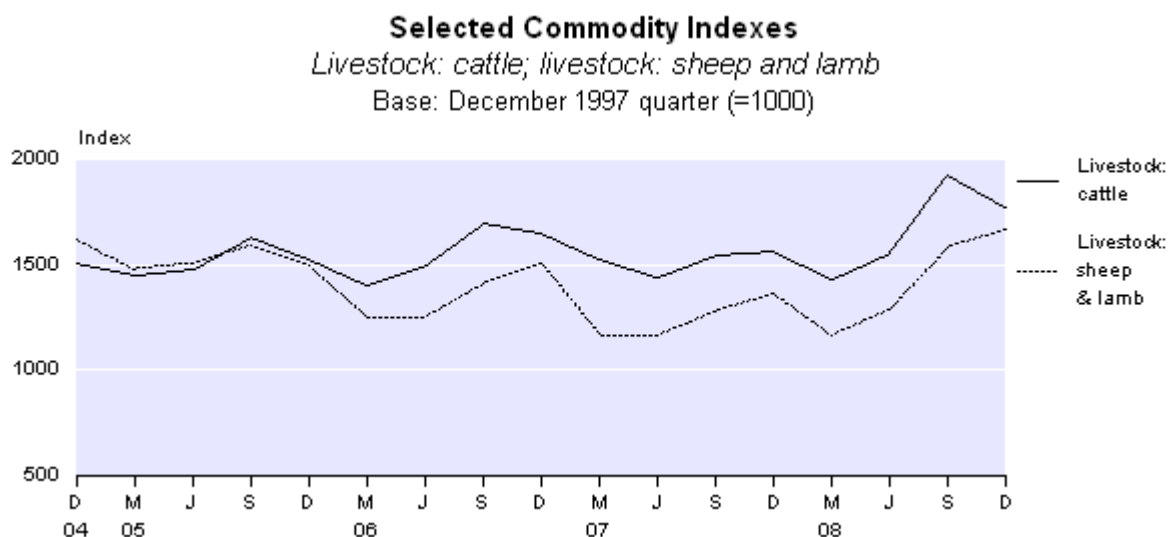




Commodities

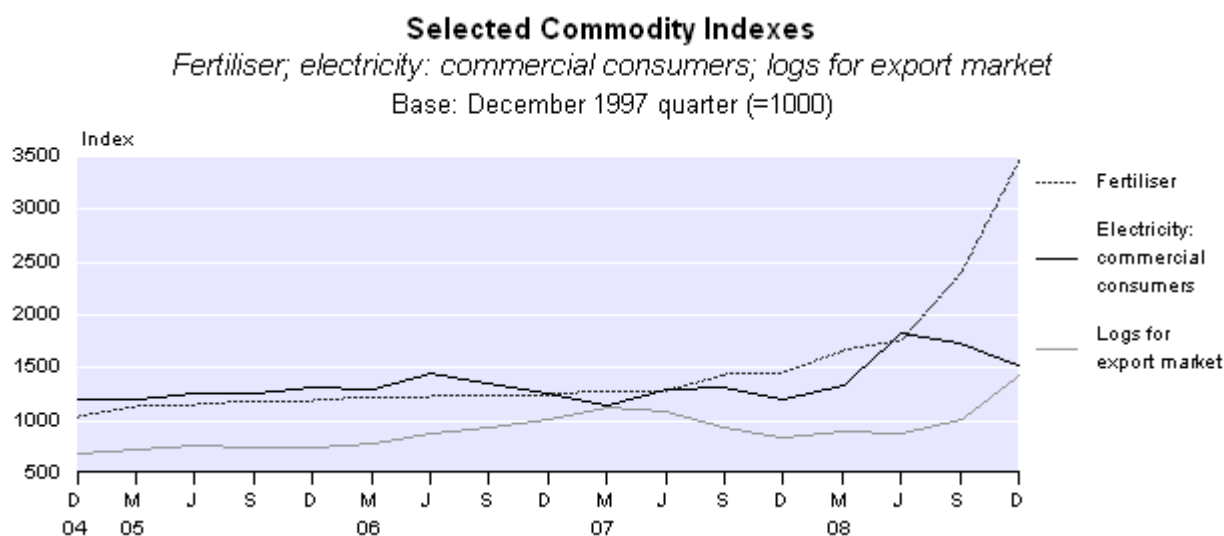
The livestock: sheep and lamb index rose 5.1 percent in the December 2008 quarter, following rises of 22.6 percent in the September 2008 quarter and 10.4 percent in the June 2008 quarter. The latest quarterly rise was mainly driven by higher farm-gate prices for lamb. On an annual basis, the livestock: sheep and lamb index rose 21.8 percent in the year to the December 2008 quarter, and fell 9.4 percent in the year to the December 2007 quarter.

The livestock: cattle index fell 8.1 percent in the December 2008 quarter, reflecting a turnaround from rises of 23.8 percent in the September 2008 quarter, and 8.4 percent in the June 2008 quarter. Lower prices across the board for bulls, steers and cows resulted in the decline for the latest quarter. On an annual basis, the livestock: cattle index rose 13.2 percent in the year to the December 2008 quarter, and fell 5.0 percent in the year to the December 2007 quarter.



One of the largest movers among the published commodities indexes was fertiliser (up 44.4 percent). This latest movement was the largest rise since the series began in the June 1994 quarter, and followed rises of 36.4 percent in the September 2008 quarter, and 5.3 percent in the June 2008 quarter. Higher prices for various phosphatic fertilisers were recorded, a result of high world demand, suppliers' prices and freight costs. On an annual basis, the fertiliser index recorded a significant rise of 139.8 percent in the year to the December 2008 quarter, the largest annual rise since the series began in the June 1994 quarter.

The logs for export market index rose 40.1 percent in the December 2008 quarter, the largest quarterly rise since the series began in the June 1997 quarter. Higher prices were received for export logs, due to the depreciating New Zealand dollar. In the year to the December 2008 quarter, the logs for export market index rose 69.7 percent, also the largest annual rise since the series began in the June 1997 quarter.



The electricity for commercial users index fell 11.6 percent in the latest quarter, following a fall of 5.3 percent in the September 2008 quarter, and a 36.6 percent rise in the June 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 rose 27.4 percent in the year to the December 2007 quarter, and fell 5.4 percent in the year to the December 2006 quarter.

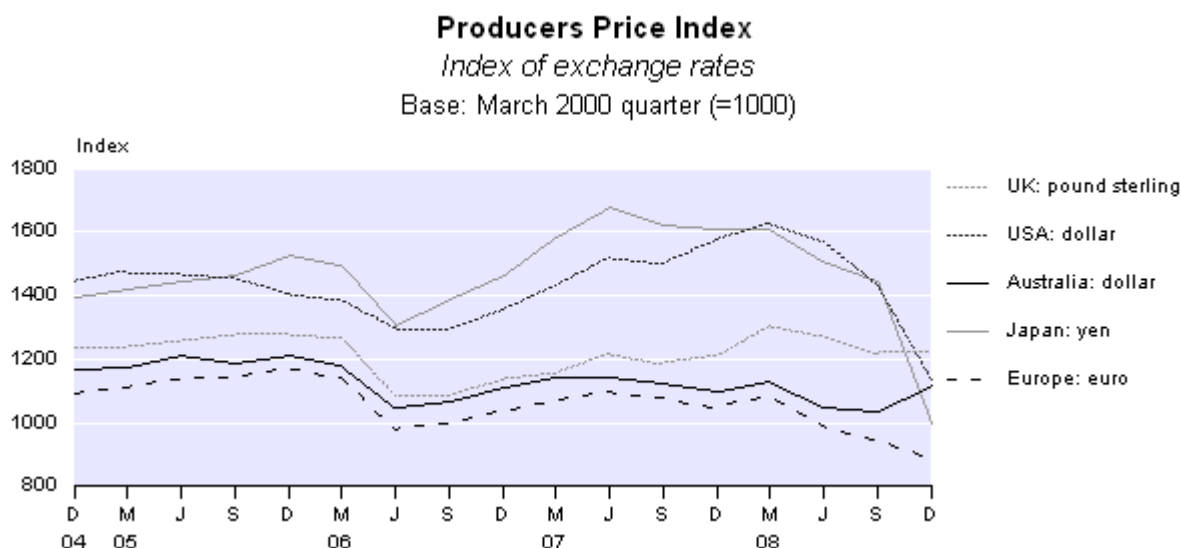
Impact of exchange rates

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 three key currencies of the country's five major trading partners in the December 2008 quarter. The table below shows changes in the value of the New Zealand dollar in foreign currency denominations, from the September 2008 quarter to the December 2008 quarter.

Exchange Rates Bank selling rates for NZ\$1.00					
	USA (NZ\$:US\$)	UK (NZ\$:pound)	Australia (NZ\$:AUS\$)	Japan (NZ\$:yen)	Europe (NZ\$:euro)
15 August 2008	0.6909	0.3699	0.7941	75.6480	0.4649
15 November 2008	0.5447	0.3732	0.8588	52.0542	0.4363
Percentage change	-21.2	0.9	8.1	-31.2	-6.2

Source: Westpac Banking Corporation.



Price index developments

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

The following published indexes have been redeveloped and took effect from the December 2008 quarter:

- PPIQ.SUC10 – Petroleum, coal and basic chemical manufacturing
- PPIQ.SUC12 – Non-metallic mineral product manufacturing

For more information please see the technical notes section of this release.

Producers Price Index quality improvements

Imported crude oil

An improvement has been made to the way the PPI is compiled. The change, which relates to crude oil, affects the inputs index for the wholesale trade industry.

Crude oil is an important input to the wholesale trade industry. Movements in the import price index for crude oil are used in the PPI. Since 2003, these movements have been lagged by one quarter. For example, the movement for crude oil for the June 2008 quarter was used for the September 2008 quarter PPI.

Improvements made to Statistics NZ's index compilation practices mean that it is now possible to include the import price index provisional movement for crude oil in the PPI without a lag. Given the recent volatility of crude oil prices, it was important to remove the lag at the earliest opportunity. However, removing the lag for the December 2008 quarter PPI without revising the time series would have caused significant disruption to the latest quarterly and annual movements. Therefore, the time series have been revised back to the September 2003 quarter (when the lag was introduced).

The PPI outputs indexes are not affected by this change. The PPI inputs time series affected are:

- wholesale trade
- all industries, excluding administration, health and education
- all industries.

See [Producers Price Index – Information releases](#) for a table that gives the originally published and revised index numbers, quarterly percentage changes, and annual percentage changes from the September 2003 quarter to the September 2008 quarter. The revised index numbers are also available on [Infoshare](#) (under Economic indicators, Producers Price Index).

Dairy product prices

Until the June 2008 quarter, the export dairy product prices received by Statistics NZ for the PPI were lagged by one month. For example, the export prices used for the June 2008 quarter PPI related to the months of March, April and May. In the September 2008 quarter, the prices that were received were lagged by two months.

In the December 2008 quarter, Statistics NZ was able to obtain monthly data for all three months of the calendar quarter. In order to remove the lag, the movement shown in the December quarter compares the change in prices between the September quarter (with a two-month lag) and the December quarter (without a lag). There will be no lag in future quarters.

If the two-month lag had not been removed in the December 2008 quarter, the rise in the dairy product manufacturing outputs index (up 19.2 percent) would have been slightly smaller.

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Next release ...

*Producers Price Index: March 2009 quarter will be released on
18 May 2009.*

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 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 FEPI series for input types that feed directly into the PPI (Inputs) are available on a quarterly basis from [Infoshare](#) and INFOS. The overall FEPI and input types that do not feed into the PPI will be 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 December 2008 quarter.

Non-metallic mineral product manufacturing

PPIQ.SUC12 – Non-metallic mineral product manufacturing

Information used to redevelop this index comes from the Annual Enterprise Survey and companies involved in the industry.

There have been no major shifts within this industry since it was last redeveloped in 1997. The changes made to the commodity weights reflect the growth in the construction industry over the past decade.

Output Commodity Weights for Non-metallic Mineral Product Manufacturing <i>September 2008 quarter</i>	
Commodity	Weight (%)
Ready-mixed concrete	27.63
Cement	22.99
Non-refractory mortars and concrete	11.19
Pre-stressed concrete products	10.06
Glass bottles and containers	8.74
Plaster board	7.57
Glass fibre and glass wool products	3.69
Safety, float and polished glass	3.64
Building aggregates	2.70
Road freight transport	1.37
Clay bricks	0.26
Non-structural ceramic ware not elsewhere classified	0.16

Petroleum, coal and basic chemical manufacturing

PPIQ.SUC10 – Petroleum, coal and basic chemical manufacturing

Information used to redevelop this index comes from the Annual Enterprise Survey and companies involved in the industry.

Output Commodity Weights for Petroleum, Coal & Basic Chemical Manufacturing <i>September 2008 quarter</i>	
Commodity	Weight (%)
Fertilisers	42.92
Organic chemicals	11.44
Petroleum refining	18.42
Synthetic resins	11.23
Industrial gas	5.49
Inorganic chemicals	5.72
Other	4.78

The 'Other' group includes commodities such as lubricants, petroleum pipeline services, bitumen and asphalt products, bituminised paper, and semi-finished metal products.

For further information on the redevelopment, please contact Patricia Jennings at 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.

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