

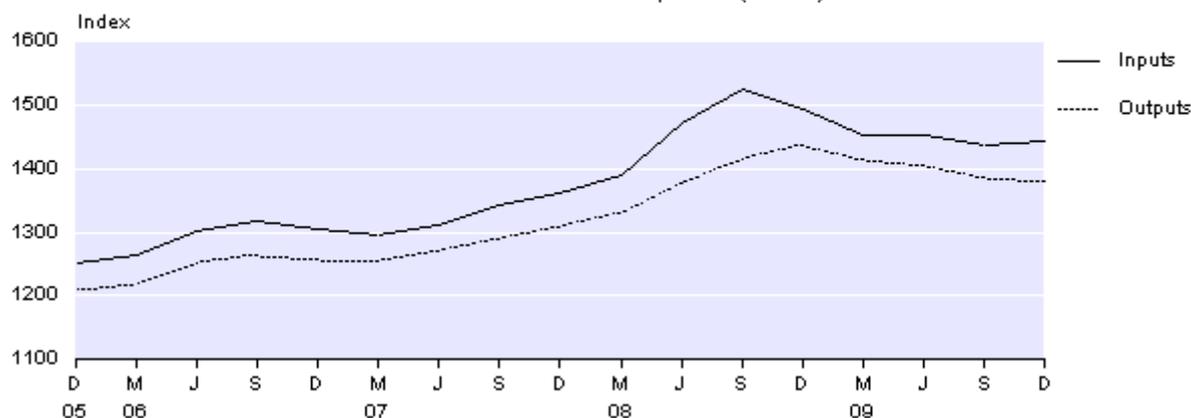
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Producers Price Index: December 2009 quarter – revised

Highlights

- The producers price index (PPI) outputs index fell 0.4 percent.
- Output prices for meat and meat product manufacturing fell 8.5 percent.
- Output prices fell 3.8 percent in the year to the December 2009 quarter.
- The PPI inputs index rose 0.3 percent.
- Input prices for dairy product manufacturing rose 15.2 percent.
- Input prices fell 3.3 percent in the year to the December 2009 quarter.

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



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Commentary

Revisions

Revisions have been made to some producers price index (PPI) figures for the December 2009 quarter, originally published on 16 February 2010.

Dairy product and chemical prices received late in the processing cycle but not included in the originally published figures, have been included in the corrected figures.

A new method for measuring change in farm-gate milk prices was introduced in the December 2009 quarter. The new method involves taking the most recently published figure for the forecast final milk payout, and showing movements in this figure on a quarterly basis. A correction has been made, as the PPI published on 16 February showed an increase from the final milk payout figure for the previous season to the latest available forecast payout for the current season, rather than from an earlier forecast figure for the current season.

Although the impact at the all industries level is small (3 index points for outputs and 2 index points for inputs), the all industries index numbers for the December 2009 quarter have also been corrected, to maintain consistency with the industry groups.

The following series are affected:

- Agriculture, forestry, and fishing outputs (PPIQ.SUA)
- Livestock and cropping farming outputs (PPIQ.SUA02)
- Dairy cattle farming outputs (PPIQ.SUA03)
- Other farming outputs (PPIQ.SUA04)
- Manufacturing outputs (PPIQ.SUC)
- Dairy product manufacturing outputs (PPIQ.SUC02)
- Petroleum, coal, and basic chemical manufacturing outputs (PPIQ.SUC10)
- Agriculture outputs (PPIQ.SUX01)
- Food, beverages, and tobacco outputs (PPIQ.SUX05)
- Chemicals, petroleum, and plastics outputs (PPIQ.SUX09)
- All industries outputs (PPIQ.SU9)
- Manufacturing inputs (PPIQ.SNC)
- Dairy product manufacturing inputs (PPIQ.SNC02)
- Petroleum, coal, and basic chemical manufacturing inputs (PPIQ.SNC10)
- Food, beverages, and tobacco inputs (PPIQ.SNX05)
- Chemicals, petroleum, and plastics inputs (PPIQ.SNX09)
- All industries excluding administration, health, and education inputs (PPIQ.SN8)
- All industries inputs (PPIQ.SN9)
- Dairy products (excl milk and cream) commodity (PPIQ.SC09).

The December 2009 quarter Hot Off the Press tables have been updated, and a revisions table has been attached. The revisions table gives the originally published and revised index numbers, quarterly percentage changes, and annual percentage changes. The revised index numbers are also available on Infoshare (under Economic indicators, Producers Price Index).

Outputs

Output prices for all industries in the PPI fell 0.4 percent in the December 2009 quarter, following falls of 1.4 percent in the September 2009 quarter, and 0.7 percent in the June 2009 quarter.

The meat and meat products manufacturing index is the major downward contributor to the PPI outputs index in the December 2009 quarter. The dairy cattle farming index had the major offsetting impact.

Producers Price Index Outputs <i>All industries</i>		
Quarter	Percentage change from previous quarter	Percentage change from same quarter, previous year
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
Jun 2009	-0.7	2.1
Sep 2009	-1.4	-2.1
Dec 2009	-0.4	-3.8

The meat and meat products manufacturing index (down 8.5 percent) had the largest downward impact on output prices in the December 2009 quarter. The fall in the latest quarter was the largest quarterly fall since the series began in the June 1994 quarter. The latest quarterly fall followed smaller falls of 0.3 percent in the September 2009 quarter and 3.7 percent in the June 2009 quarter. The fall in the latest quarter's index was driven by lower export prices for boneless beef and frozen sheep meat.

In the year to the December 2009 quarter, the meat and meat product manufacturing index fell 12.5 percent, which is the largest annual fall since the series began in the June 1994 quarter. The latest annual fall compares with rises of 18.7 percent and 3.9 percent in the years to the December 2008 and December 2007 quarters, respectively.

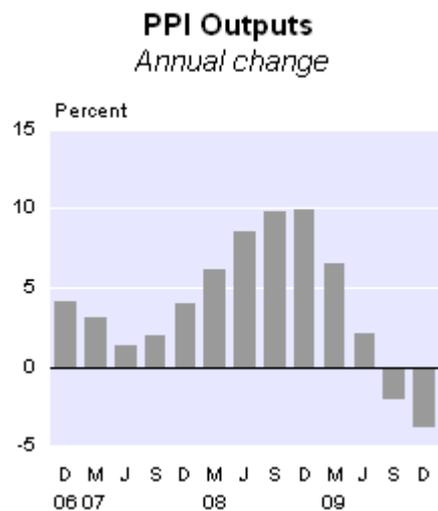
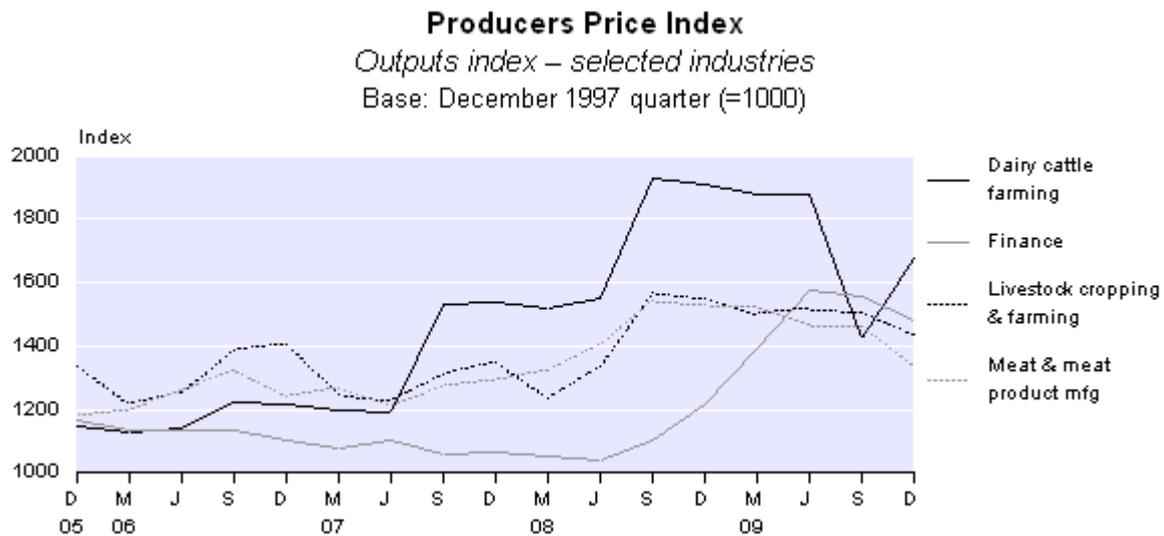
The finance index was the second largest downward contributor, falling 4.8 percent in the December 2009 quarter. The financial intermediation charges index decreased due to the interest rates for lending falling more than the New Zealand dollar interest rates for borrowing. For more details, please see the 'pricing financial services' section in the Technical notes.

The livestock and cropping farming index (down 4.8 percent) had the third largest downward impact on output prices in the December 2009 quarter. The fall in the latest quarter was driven by lower prices for prime sheep and cattle. It was the largest quarterly fall since the March 2008 quarter when it fell 8.4 percent. The latest quarterly fall followed a 0.7 percent fall in the September 2009 quarter and a 1.1 percent rise the June 2009 quarter.

In the year to the December 2009 quarter, the livestock and cropping farming index fell 7.7 percent, following a rise of 15.3 percent in the year to the December 2008 quarter and a 4.3 percent fall in the year to the December 2007 quarter.

The dairy cattle farming index (up 17.8 percent) had the largest offsetting impact on output prices in the December 2009 quarter. The latest quarter's index was driven by increased farm-gate prices for whole-milk. Previously a change in the whole-milk payout was shown only in the PPI each September quarter. A new method that involves taking the most recently published figure for the forecast final milk payout, and showing movements in this figure on a quarterly basis, has been implemented from this quarter onwards.

The PPI outputs index fell 3.8 percent in the year to the December 2009 quarter, recording the largest annual fall since the series began in the December 1977 quarter. The latest annual fall contrasts with rises of 9.9 percent and 4.0 percent in the years to the December 2008 and December 2007 quarters, respectively. Output prices are now at about the same level as they were in the June 2008 quarter.



Inputs

Input prices for all industries in the PPI rose 0.3 percent in the December 2009 quarter. This follows a fall of 1.1 percent in the September 2009 quarter, and no change in the June 2009 quarter.

Producers Price Index Inputs <i>All industries</i>		
Quarter	Percentage change from previous quarter	Percentage change from same quarter, previous year
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
Jun 2009	0.0	-1.2
Sep 2009	-1.1	-5.8
Dec 2009	0.3	-3.3

The dairy product manufacturing index (up 15.2 percent) made the most significant upward contribution to the inputs index. The main driver of the increase in the December 2009 quarter was higher whole-milk prices at the farm-gate. As mentioned in the outputs commentary, a new method that involves taking the most recently published figure for the forecast final payout, and showing movements in this figure on a quarterly basis, has been implemented this quarter.

The second most significant contribution to the inputs index came from the electricity generation and supply index. The index rose 6.7 percent, following an 8.2 percent fall in the September 2009 quarter, and a 10.4 percent rise in the June 2009 quarter. Respondents cited market conditions as the main reason for the rise in electricity generation and supply prices. Higher prices for natural gas, used in the generation of electricity, also contributed to the latest quarter's rise.

On an annual basis, the electricity generation and supply index rose 6.5 percent in the year to the December 2009 quarter. This follows falls of 0.9 percent and 1.4 percent in the years to the December 2008 and December 2007 quarters, respectively.

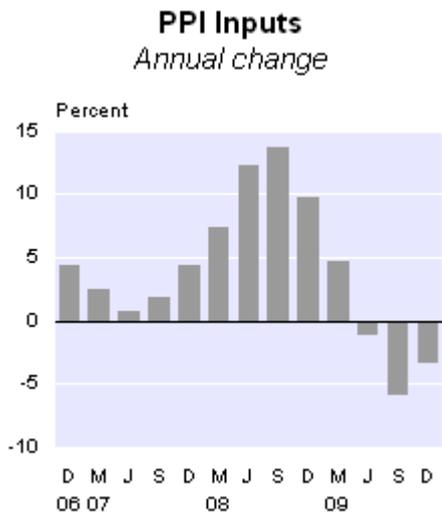
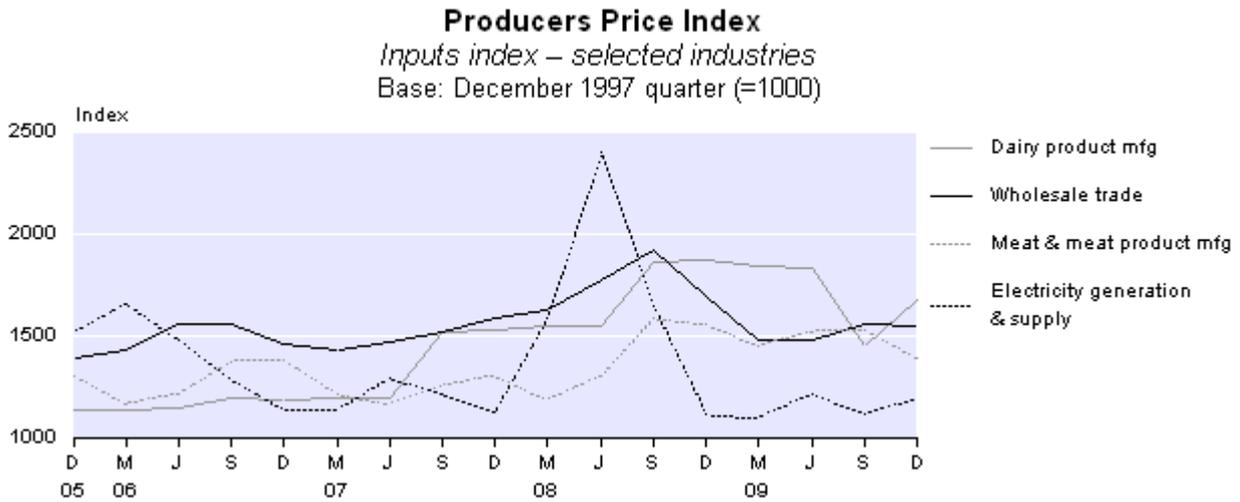
The largest downward contribution came from the meat and meat product manufacturing index (down 9.3 percent). This contrasts with rises of 0.7 percent in the September 2009 quarter, and 4.9 percent in the June 2009 quarter. The latest fall was mainly driven by lower prices for sheep and cattle livestock.

The meat and meat product manufacturing index fell 11.1 percent in the year to the December 2009 quarter. This annual fall is the largest since a 13.9 percent fall in the year to the June 2003 quarter. There was a rise of 20.2 percent in the year to the December 2008 quarter, and a fall of 6.2 percent in the year to the December 2007 quarter.

The wholesale trade index (down 0.9 percent) was the second largest downward contributor to the all inputs index. This follows an increase of 5.6 percent in the September 2009 quarter, and a fall of 0.1 percent in the June 2009 quarter. The latest fall in the index was mainly driven by a fall in the price of imported crude oil in the mineral, metal, and chemical wholesaling index.

On an annual basis, the wholesale trade index fell 8.8 percent in the year to the December 2009 quarter. This follows rises of 6.8 percent in the year to the December 2008 quarter, and 8.4 percent in the year to the December 2007 quarter.

Input prices for all industries fell 3.3 percent in the year to the December 2009 quarter. This follows rises of 9.7 percent in the year to the December 2008 quarter, and 4.3 percent in the year to the December 2007 quarter.



Commodities

The electricity: commercial consumers index fell 10.6 percent in the December 2009 quarter, driven by lower retail electricity prices for businesses. This contrasts with rises of 2.2 percent and 20.2 percent in the September and June 2009 quarters respectively.

On an annual basis, the index fell 6.4 percent in the year to the December 2009 quarter. This compares with a 27.4 percent rise in the year to the December 2008 quarter, and a fall of 5.4 percent in the year to the December 2007 quarter.

Selected Commodity Indexes

Electricity: commercial consumers

Base: December 1997 quarter (=1000)



Impact of exchange rates

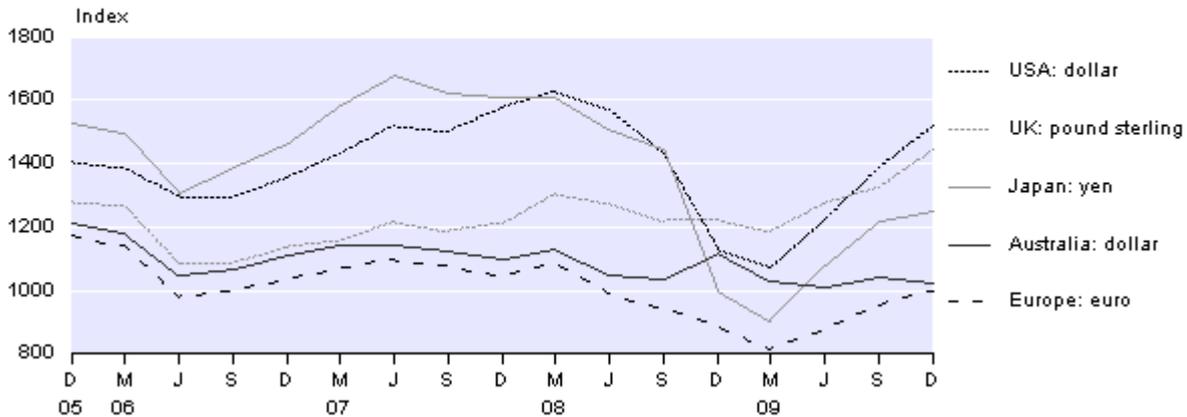
When calculating the PPI, prices collected on the fifteenth day of the middle month in the quarter are generally used to represent the entire quarter. Prices collected for imported goods are often denominated in foreign currencies. These currencies are converted to New Zealand dollars using the exchange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

The New Zealand dollar appreciated against four key currencies of the country's five major trading partners in the December 2009 quarter, while it depreciated against the Australian dollar. The table below shows changes in the value of the New Zealand dollar in foreign currency denominations from the September 2009 quarter to the December 2009 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 2009	0.6701	0.4042	0.7995	63.5947	0.4675
15 November 2009	0.7337	0.4396	0.7873	65.4053	0.4895
Percentage change	9.5	8.8	-1.5	2.8	4.7

Source: Westpac Banking Corporation.

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



Price index developments

Statistics NZ 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.

The following indexes within the property and business services index (PPIQ.SUL) have been redeveloped and took effect from the December 2009 quarter:

- Scientific research & technical services
- Legal & accounting services.

For more information, please see the Technical notes.

Pricing financial services

The output of the banking industry consists of services provided by banks and other financial intermediaries that are both explicitly and implicitly charged for. Pricing explicit services (such as, bank account fees) provided by financial intermediaries is relatively straightforward. However, pricing the intermediation services provided by financial institutions that are implicitly charged for is more problematic. Due to the complex nature of these services, there are some limitations in the approach taken to measure these services. For more information, please see the Technical notes.

For technical information contact:
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 Wellington 04 931 4600
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Next release ...

Producers Price Index: March 2010 quarter will be released on 18 May 2010.

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 will review 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 FEPI 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 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 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.

Price index development

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

Scientific research and technical services

The PPI for the scientific research and technical services within the property and business services industry has been redeveloped, and takes effect from the December 2009 quarter.

PPIQ.SUL04 – Business services

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

Output Commodity Weights for Scientific Research & Technical Services	
<i>September 2009 quarter</i>	
Commodity	Weight (%)
Professional technical services	88.07
Research and development services	11.93

The most significant change from when this industry was last redeveloped in 1997 is that a higher weight has been allocated to professional technical services and a lower weight has been allocated to research and development services.

Legal and accounting services

The PPI for the legal and accounting services within the property and business services industry has been redeveloped, and takes effect from the December 2009 quarter.

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

There have been no major changes in this industry since it was last redeveloped in 1997.

Output Commodity Weights for Legal and Accounting Services	
<i>September 2009 quarter</i>	
Commodity	Weight (%)
Accounting services	47.97
Legal services	52.03

For further information on the redevelopment, please contact Vanessa Turner at info@stats.govt.nz.

Pricing financial services

The output of the banking sector can be broadly categorised in two ways. Firstly there are those explicit 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 which is implicitly charged for through financial institutions lending money out at higher interest rates than they pay to depositors (or organisations from whom 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 that is 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 is then derived 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 used in this calculation are sourced from the Reserve Bank of New Zealand (<http://www.rbnz.govt.nz/statistics/monfin/c10/data.html>), while the inflation adjustment is carried out using the all groups consumers price index.

One limitation of the above approach is that the weighted average interest rates on funding, sourced from the published information available from the Reserve Bank exclude foreign currency funding, which accounted for approximately 30 percent of total registered bank funding at December 2008. The Reserve Bank has reported that it is currently working with registered banks to collect this information. Statistics NZ will incorporate this additional information to increase the coverage of bank funding interest rates in the PPI when it becomes available.

If the level of the foreign currency funding interest rates were 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 the calculation of the spread would only manifest itself in the PPI if the relative movements of the foreign currency funding rates were significantly different from the relative movements of the New Zealand dollar funding rates. Statistics NZ has 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 foreign currency funding rates becomes available.

It should also be noted that 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 the PPI is interested in the rates that were contracted to by the parties to financial intermediation transactions. The hedging arrangements, while they will impact on the bottom-line profit of the banks, are considered to be separate transactions.

Index series available online

To access more data from the PPI series, go to [Infoshare](#) on the Statistics NZ website, and choose:

Subject category: **Economic indicators**,

Group: **Producers Price Index**

The time series can be downloaded in Excel or comma delimited format, where percentage movements can be calculated using the following formula:

$$\left(\frac{\text{Index number for later period} - \text{Index number for earlier period}}{\text{Index number for earlier period}} \right) \times 100$$

More information about [Infoshare](#) can be found on our website.

Contract indexation

Parties that engage in commercial contracts use a range of price indexes produced by Statistics NZ 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 life of the contract. [Contract indexation: A Guide for Businesses](#) provides information on the price indexes produced by Statistics NZ and issues relating to their use in indexation clauses. The guide also outlines some points to consider when preparing an indexation clause, and includes an example of the mechanics of a simple indexation formula.

More information

For more information, follow the [link](#) from the Technical notes of this release on the Statistics NZ 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, percentage change from same quarter of previous year
6. Producers Price Index, inputs – selected industries, percentage change from same quarter of previous year
7. Producers Price Index, selected commodities – index numbers and percentage changes