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Capital Goods Price Index: December 2009 quarter

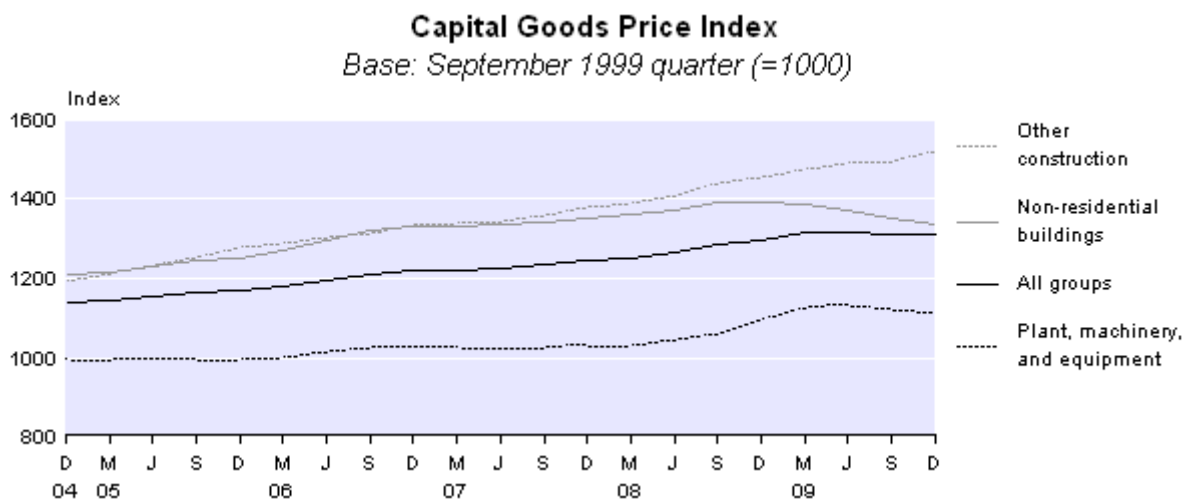
Highlights

In the December 2009 quarter compared with the September 2009 quarter:

- The capital goods price index (CGPI) fell 0.2 percent.
- The plant, machinery, and equipment index fell 1.1 percent.
- The non-residential buildings index fell 1.0 percent.

From the December 2008 quarter to the December 2009 quarter:

- The CGPI rose 0.9 percent, which is the lowest annual increase since the September 2003 quarter.



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Commentary

Capital goods price index

The capital goods price index (CGPI) fell 0.2 percent in the December 2009 quarter, following a 0.4 percent fall in the September 2009 quarter and a 0.3 percent rise in the June 2009 quarter.

Two out of six asset groups in the CGPI fell in the December 2009 quarter. The most significant downward contribution to the CGPI came from the plant, machinery, and equipment index (down 1.1 percent). The non-residential buildings index, which fell by 1.0 percent, also drove the CGPI down. The major offsetting influences came from rises in the other construction index (up 1.4 percent), transport equipment index (up 0.4 percent), and the residential buildings index (up 0.1 percent).

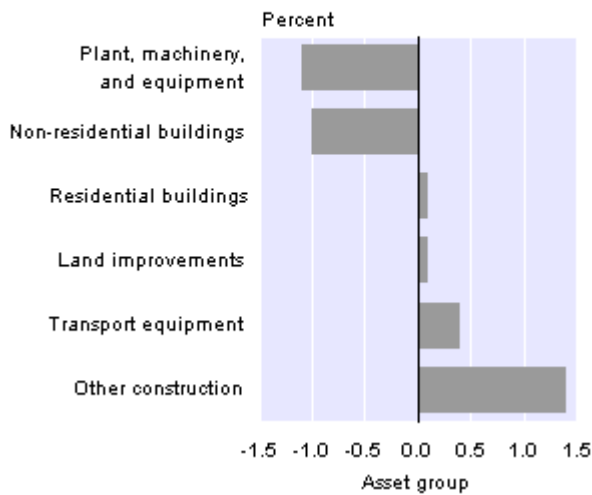
The following table shows the amount that each asset group contributed to the All Groups CGPI movement from the September 2009 quarter to the December 2009 quarter.

Capital Goods Price Index <i>Index points contribution</i>	
Asset group	September 2009 quarter to December 2009 quarter
Plant, machinery, and equipment	-3.99
Non-residential buildings	-1.94
Land improvements	0.02
Residential buildings	0.49
Transport equipment	0.56
Other construction	1.92
All groups	-2.94

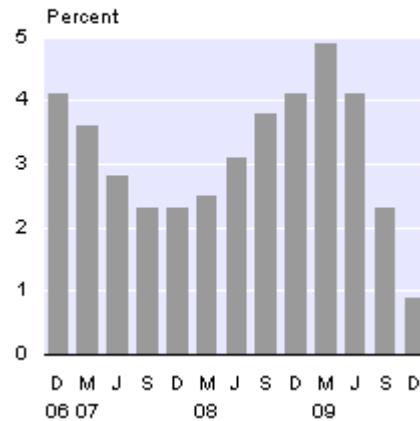
Note: Points contributions may not sum to total due to rounding.

The CGPI rose 0.9 percent in the year to the December 2009 quarter. The annual increase follows rises of 4.1 percent in the year to the December 2008 quarter and 2.3 percent in the year to the December 2007 quarter. The latest annual increase is the smallest since the September 2003 quarter.

CGPI Asset Groups
Quarterly change
 December 2009 quarter



CGPI All Groups
Annual change



Plant, machinery, and equipment

The plant, machinery, and equipment index fell 1.1 percent in the December 2009 quarter. This fall was the most significant downward contribution to the CGPI.

The plant, machinery, and equipment index measures items such as computer machinery, furniture, and machinery for mining, quarrying, and construction. The major contribution to the fall in the plant, machinery, and equipment index came from the sub-index for computer machinery.

A review of the plant, machinery, and equipment index has been implemented this quarter, which included changes to how computer machinery is measured. Computer-related price indexes from the United States have been introduced as a proxy to measure the price change of computer machinery. The United States indexes are exchange rate adjusted, and the appreciation of the New Zealand dollar against the United States dollar in the latest quarter had an impact on the decrease in computer prices. For more information on the review of the plant, machinery, and equipment index, please see the 'Technical notes' section.

In the year to the December 2009 quarter, the plant, machinery, and equipment index rose 1.9 percent. The latest annual rise follows increases of 6.5 percent and 8.4 percent in the years to the September 2009 and June 2009 quarters respectively.

Non-residential buildings

The non-residential buildings index fell 1.0 percent in the December 2009 quarter, following falls of 1.4 percent and 1.1 percent in the September and June 2009 quarters respectively. This index made the second largest downward contribution to the CGPI.

The major contributions to the latest fall in the non-residential buildings index came from the sub-indexes for shops and offices (down 0.9 percent), warehouses and factories (down 1.1 percent), and other non-residential buildings (down 0.6 percent). Lower labour costs and contractor margins, and falling material prices due to lower local demand were cited as the main reasons for the fall.

In the year to the December 2009 quarter, the non-residential buildings index fell 3.8 percent,

following a 3.1 percent fall in the year to the September 2009 quarter, and a 0.1 percent fall in the year to the June 2009 quarter.

Other construction

The other construction index rose 1.4 percent in the December 2009 quarter, following rises of 0.5 percent and 1.0 percent in the September and June 2009 quarters respectively. The other construction index made the most significant upward contribution to the CGPI. Higher prices in the construction of roads and power lines drove the increase.

The other construction index rose 4.6 percent for the year to the December 2009 quarter, following rises of 4.0 percent and 5.8 percent in the years to the September 2009 and June 2009 quarters respectively.

Transport equipment

The transport equipment index rose 0.4 percent in the December 2009 quarter, down from the 0.8 percent and 1.4 percent increases in the September and June 2009 quarters respectively. The major contribution came from the cars over 1600cc sub-index (up 1.0 percent), which was driven by higher supplier prices. Declines in the buses (down 2.9 percent) and helicopters (down 8.7 percent) sub-indexes made partly offsetting downward contributions to the transport equipment index.

In the year to the December 2009 quarter, the transport equipment index rose 6.5 percent. The latest annual rise follows rises of 7.6 percent in both the years to the September 2009 and the June 2009 quarters.

Residential buildings

The residential buildings index rose 0.1 percent in the December 2009 quarter, compared with a 0.4 percent fall in the September 2009 quarter and a 0.3 percent fall in the June 2009 quarter. The main driver for the latest increase was higher prices for dwellings and out-buildings (up 0.5 percent). The rise in the dwellings and outbuildings index was partly offset by a decrease in hostels and boarding houses (down 1.2 percent), which was driven down by lower labour costs and contractor margins.

In the year to the December 2009 quarter, the residential buildings index fell 0.6 percent. This follows a 1.0 percent fall and a 0.8 percent rise in the years to the September 2009 and June 2009 quarters respectively.

Impact of exchange rates

When calculating the CGPI, 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 prices are converted to New Zealand dollars using the exchange rates 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. 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.

Price index development

A review of the plant, machinery, and equipment index has been implemented this quarter. For more information, please see the 'Technical notes' section.

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Next release ...

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

Technical notes

Index coverage

The capital goods price index (CGPI) provides a measure of the price level changes for physical capital assets purchased by producers of goods and services throughout the economy.

Exclusions from index

Large value items that are non-recurring and/or manufactured to customer specifications (such as aircraft and ships) have been excluded from the price survey. Second-hand equipment (such as cars) has also been excluded from the index.

Calculation

The CGPI is a Laspeyres base-weighted price index series. The weights of the commodities are determined by the relative importance within each of the asset type indexes. Weighting information has been derived from statistics on external trade, manufacturing and building, and vehicle registrations, as well as discussions with manufacturers, importers, wholesalers, and retailers. Data for several years have been used, as expenditure on capital goods can be irregular. GST is excluded from prices used in this index because it is recoverable for GST-registered businesses.

Data quality

All care has been used in surveying, processing, analysing, and extracting the data for the CGPI. However, all data are subject to possible statistical uncertainty. These variations may result, for example, from uncertainty introduced during non-response imputation, or from 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 aggregation, much of the individual variability often cancels out. The CGPI data has been checked at published and underlying level indexes to identify any remaining detectable errors and uncertainty, and 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, this data may be subject to revisions in the future.

Price index development

A review of the plant, machinery, and equipment index was implemented in the December 2009 quarter. The review encompassed reselecting and reweighting the basket of representative goods, to ensure the basket continues to reflect changes in prices for capital plant, machinery, and equipment.

The updated asset type weights are:

Asset Weights for Plant, Machinery, and Equipment <i>September 2009 quarter</i>	
Asset	Weight (%)
Computer machinery	12.43
Other general purpose machinery	7.15
Furniture	6.60
Agricultural forestry and equipment	6.54
Measuring, testing, and navigating instruments	5.77
Domestic appliances	5.67
Television and radio transmitters, and apparatus	5.47
Medical and surgical equipment	5.37
Pumping and compressing equipment	4.58
Machinery for mining, quarrying, and construction	4.14
Other asset types	36.28

Within the computer machinery index, computer-related price indexes from the United States have been introduced as a proxy to measure the price change for computer machinery. The United States indexes, which are lagged one quarter to reflect a potential delay from the time that new technology is available in the United States to the time it is available in New Zealand, are exchange rate adjusted. The United States indexes are compiled using hedonic quality adjustment techniques designed to remove the effect of quality improvements and to isolate pure price change. The approach now being used for the computer machinery index is consistent with the approach being used in the import price index and for quarterly constant price imports in GDP.

Coverage

The index is calculated quarterly from price quotes collected by postal survey. Approximately 13,000 individual commodity items are surveyed from about 3,000 respondents to provide prices for use in the CGPI and other business price indexes. When calculating the CGPI, prices collected on the fifteenth day of the middle month of 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.

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 Statistics NZ produces 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.

Index series available online

To access more data from the CGPI series, go to [Infoshare](#) on the Statistics NZ website (www.stats.govt.nz) and choose:

Subject category: **Economic indicators**
Group: **Capital Goods Price Index.**

The time series can be downloaded in Excel or comma delimited format, where percentage movements can be calculated using the following formula: ((Index number for later period minus index number for earlier period) divided by index number for earlier period) multiplied by 100.

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

More information

For more information, follow the link from the 'Technical notes' section 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. Capital goods price index
2. Capital goods price index, percentage change from previous quarter
3. Capital goods price index, percentage change from same quarter of previous year