

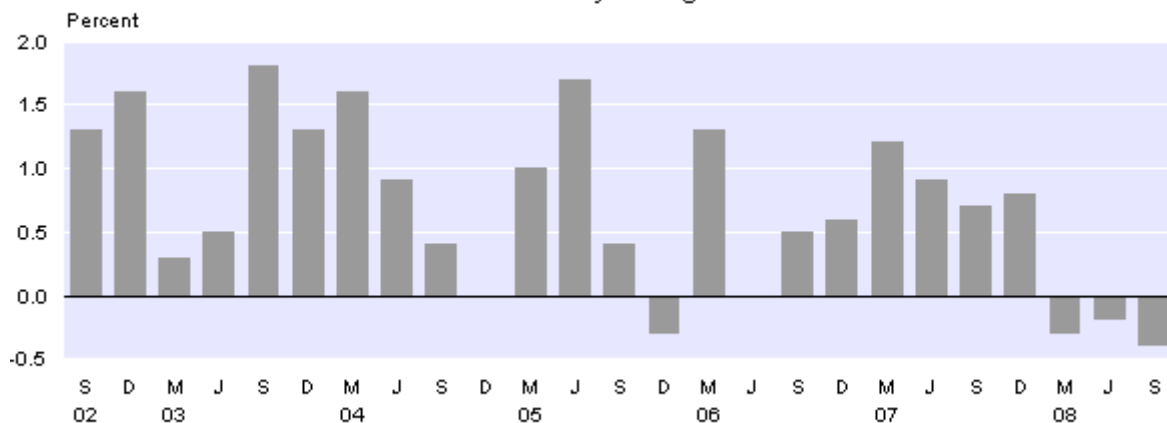
Embargoed until 10:45AM – 23 December 2008

Gross Domestic Product: September 2008 quarter

Highlights

- Economic activity decreased 0.4 percent in the September 2008 quarter, the third consecutive decrease in economic activity.
- Annual growth in gross domestic product was 1.7 percent for the September 2008 year.
- In the September 2008 quarter, activity in goods-producing industries decreased 1.4 percent and service industries declined 0.2 percent.
- Household consumption expenditure dropped 0.2 percent this quarter, its third consecutive decrease.
- Gross fixed capital formation decreased 8.6 percent in the September 2008 quarter.
- Real gross national disposable income increased 4.4 percent for the year ended September 2008.

Gross Domestic Product⁽¹⁾
Quarterly change



(1) Seasonally adjusted chain-volume series expressed in 1995/96 prices.

Geoff Bascand
Government Statistician

23 December 2008
ISSN 1178-0290

Commentary

All references to quarterly movements are to seasonally adjusted chain-volume series expressed in 1995/96 prices unless otherwise stated.

Economic growth declines

Economic activity declined 0.4 percent in the September 2008 quarter, following a decrease of 0.2 percent in the June 2008 quarter. This is the third consecutive quarter of declining economic activity. In the year ended September 2008, the economy grew 1.7 percent, down from the 2.8 percent growth recorded in the year ended September 2007.

Activity in primary industries increased 2.1 percent this quarter, with agriculture the main contributor (up 6.0 percent). Dairy production and cattle processed for meat were the main drivers within the agriculture group.

Activity in goods producing industries was down 1.4 percent in the September 2008 quarter, driven by manufacturing activity (down 2.5 percent) and construction (down 1.2 percent). The largest decrease in manufacturing was in food, beverage and tobacco manufacturing. A 5.1 percent increase in electricity gas and water value-added partly offset these decreases.

Service industries recorded their second consecutive quarter of decline, down 0.2 percent for the September 2008 quarter. This is the first time since 1991 that there have been consecutive negative quarters in the service industries. Declines in transport and communication (down 1.4 percent), wholesale trade (down 1.8 percent) and retail, accommodation and restaurants (down 1.2 percent) drove this quarter's decrease. Increases in finance, insurance and business services (up 0.5 percent) and in government administration and defence (up 0.6 percent) partly offset the overall decrease in service industries.

The expenditure-based measure of Gross Domestic Product (GDP), released concurrently with the production-based measure, decreased 0.7 percent in the September 2008 quarter.

Household consumption expenditure fell 0.2 percent in the September 2008 quarter, the third consecutive fall in the volume of goods and services purchased by New Zealand households. Household consumption expenditure was down 0.5 percent and 0.2 percent in the March and June 2008 quarters, respectively. In the September 2008 quarter, household expenditure on services was down 0.5 percent and expenditure on non-durables was down 0.9 percent. The decrease in non-durables was mainly driven by food and beverages. Expenditure on durable items was up 0.5 percent for the quarter, mainly due to spending on retail furniture and major appliances (up 3.1 percent).

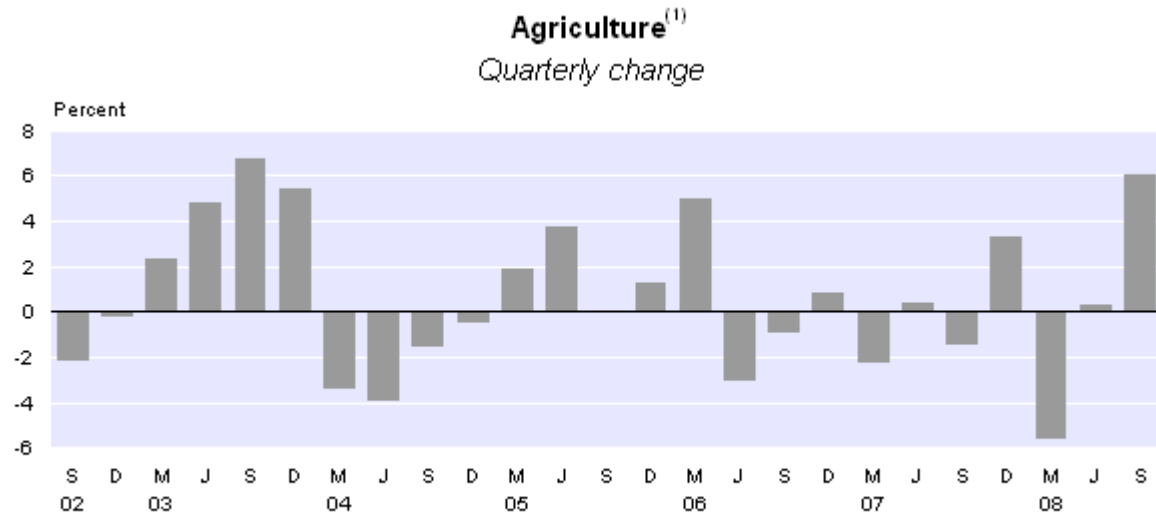
Imports of plant and machinery fell 18.0 percent in the September 2008 quarter, a reflection of lower investment in plant machinery and equipment for the quarter, down 15.6 percent. The decrease was due in part to the importing of large-value capital goods related to the oil industry in the June 2008 quarter. Overall business investment decreased 8.6 percent in the September 2008 quarter.

Total import volumes were down 7.6 percent in the September 2008 quarter. Total export volumes decreased over the same period, down 3.1 percent. The largest contributor was the 12.9 percent decrease in exports of agriculture and fishing primary products.

Gross domestic product by industry

Primary industries

Primary industry activity increased 2.1 percent in the September 2008 quarter, following the 0.3 percent decrease in the June 2008 quarter. Agriculture was the main driver of the increase in primary activity this quarter, up 6.0 percent. For the year ended September 2008, activity in primary industries increased 4.1 percent, compared with a 1.2 percent decrease for the year ended September 2007.



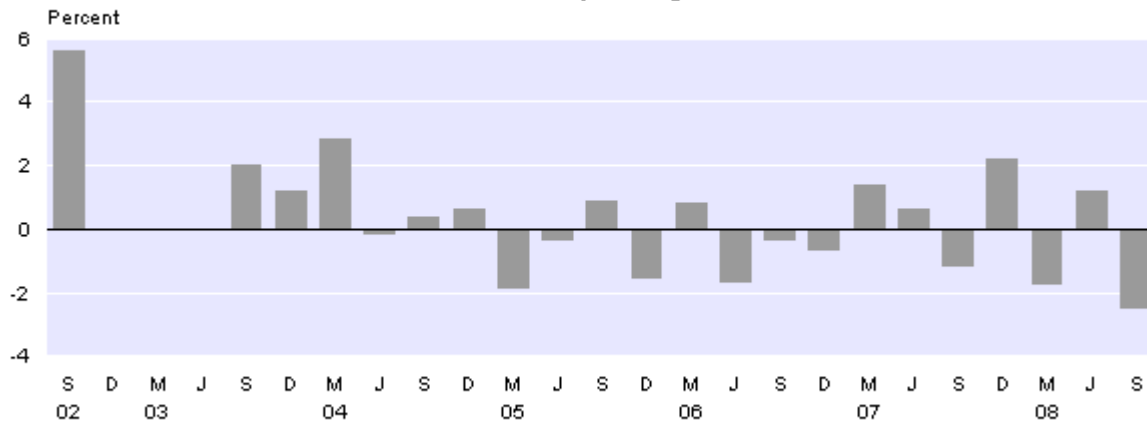
(1) Seasonally adjusted chain-volume series expressed in 1995/96 prices.

This quarter's increase in agriculture production was mainly driven by increased dairy production (milk fat) and cattle processed for meat. Conversions from beef and sheep farms to dairy farms are continuing and they contributed to the return of dairy production to pre-drought levels. The increase in agricultural production this quarter is also reflected in the increase in agricultural inventories.

Goods producing industries

Activity in goods-producing industries decreased 1.4 percent in the September 2008 quarter, the third consecutive quarterly decrease. The main contributor to this quarter's fall was manufacturing, down 2.5 percent. Eight of the nine manufacturing industries decreased this quarter with food, beverage and tobacco manufacturing the largest contributor (down 2.3 percent). Only machinery and equipment manufacturing recorded an increase in the September quarter, up 2.5 percent, mainly driven by transport equipment manufacturing.

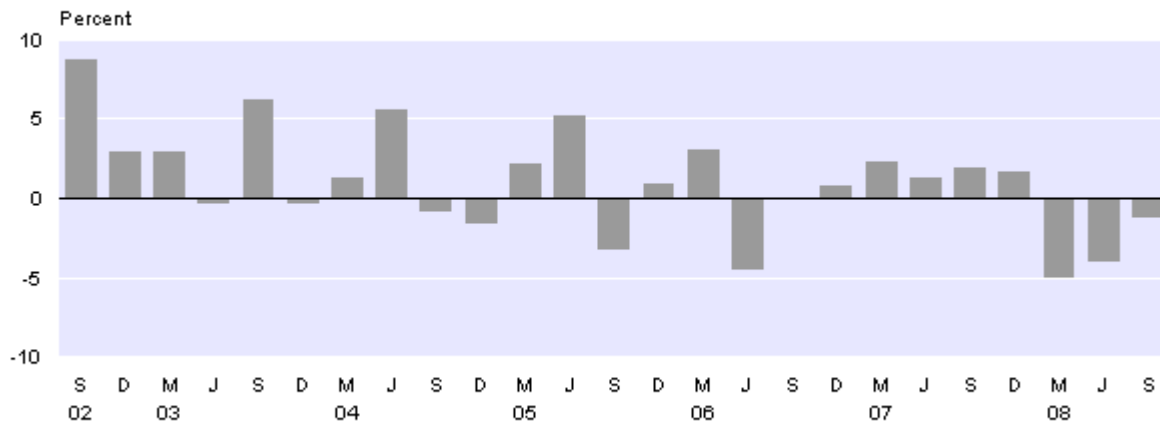
Manufacturing⁽¹⁾ Quarterly change



(1) Seasonally adjusted chain-volume series expressed in 1995/96 prices.

Construction activity also declined in the September 2008 quarter, down 1.2 percent. This decrease was driven by a fall in residential building and construction trade services. These decreases were partly offset by non-residential building, which recorded an increase in activity this quarter.

Construction⁽¹⁾ Quarterly change



(1) Seasonally adjusted chain-volume series expressed in 1995/96 prices.

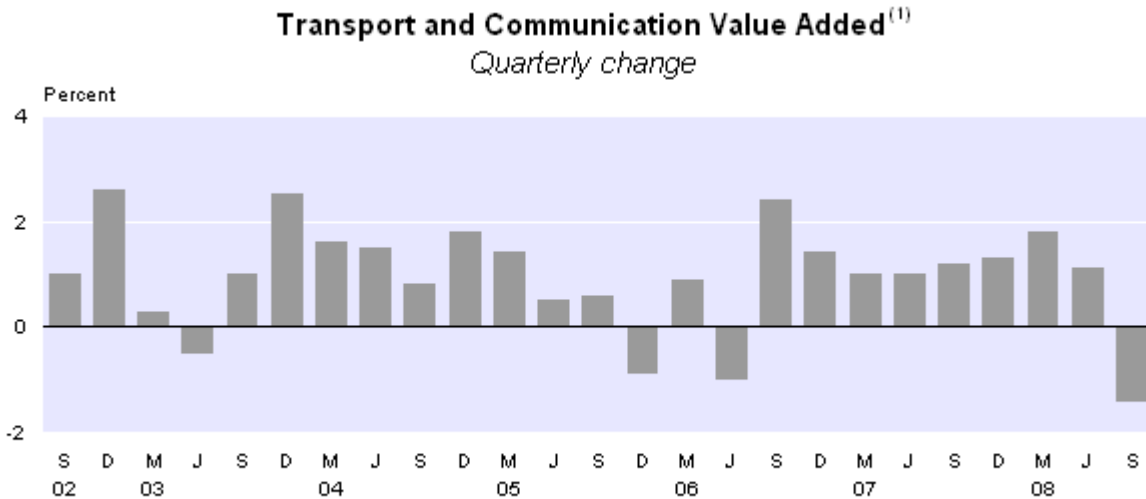
Electricity, gas and water offset some of the decline in goods producing industries this quarter, with an increase of 5.1 percent. An increase in electricity value added was mainly due to the end of the drought, with higher lake levels allowing more hydro electricity production this quarter. Hydro electricity production has a higher value added than thermal electricity production. In addition, a new geothermal plant began producing power in the September 2008 quarter.

For the year ended September 2008, activity in goods-producing industries decreased 0.4 percent.

Services industries

Service industry activity was down 0.2 percent in the September 2008 quarter, following a 0.4 percent decrease in the June 2008 quarter. This is the first time since 1991 that there have been consecutive quarters of decline in the services industries.

Transport and communications was the largest contributor to the decrease this quarter, down 1.4 percent. Within this grouping, communication services contributed the most, falling 1.8 percent. Transport and storage services activity also fell, down 1.1 percent.



(1) Seasonally adjusted chain-volume series expressed in 1995/96 prices.

Other falls came from wholesale trade, down 1.8 percent, driven by a fall in motor vehicle wholesaling. Retail, accommodation and restaurants fell 1.3 percent, with motor vehicle retailing and services the main driver.

For the year ended September 2008, service industries were up 2.4 percent compared with growth of 3.9 percent in the year to September 2007.

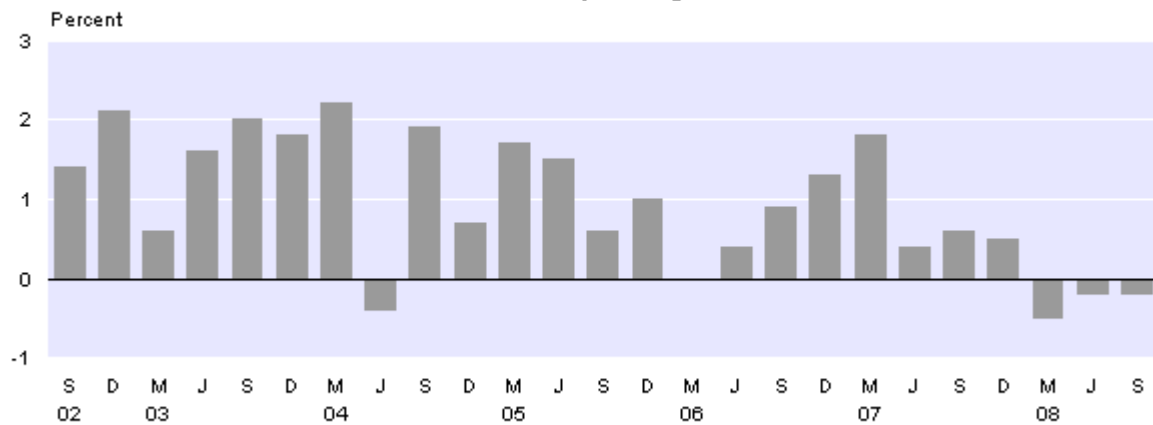
Expenditure on Gross Domestic Product

Expenditure on GDP decreased 0.7 percent in the September 2008 quarter. While the production- and expenditure-based measures are both official series, the production-based measure has historically shown less volatility and is the preferred series for quarter-on-quarter changes.

Households

Household final consumption expenditure decreased 0.2 percent in the September 2008 quarter, the third consecutive decline. Household consumption expenditure fell 0.5 percent in the March 2008 quarter and 0.2 percent in the June 2008 quarter. Household consumption expenditure measures the volume of spending by New Zealand resident households on goods and services. *The Retail Trade Survey: September 2008 quarter* recorded a 0.9 percent decrease in sales volumes.

Household Consumption Expenditure ⁽¹⁾ Quarterly change

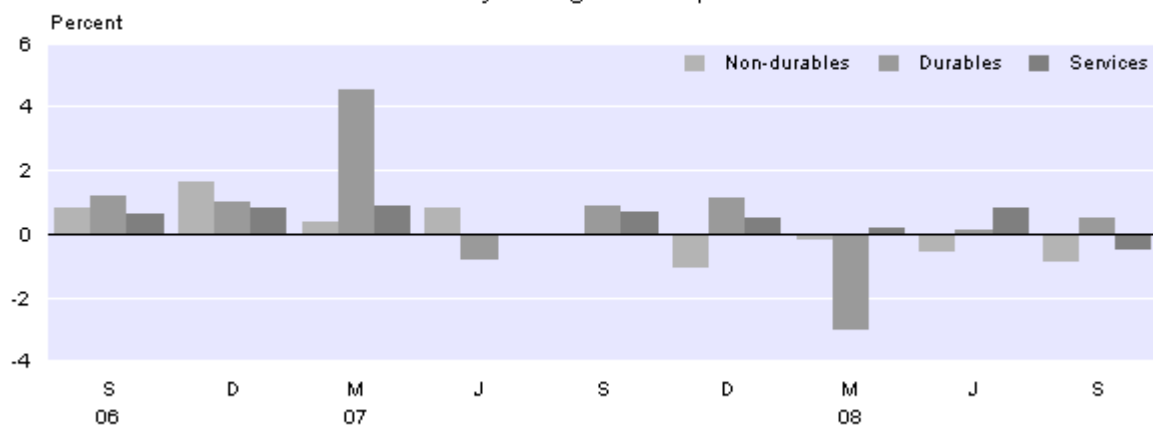


(1) Seasonally adjusted chain-volume series expressed in 1995/96 prices.

Household expenditure on durables increased 0.5 percent in the latest quarter, following a 0.1 percent increase in the June 2008 quarter. An increase in household spending on retail furniture and major appliances was the main contributor to the rise in durables.

The volume of expenditure on non-durable items was down 0.9 percent in the September 2008 quarter, mostly coming from reduced household spending on food and beverages. Spending on food and beverages decreased 1.1 percent.

Household Consumption Expenditure ⁽¹⁾ Quarterly change in components

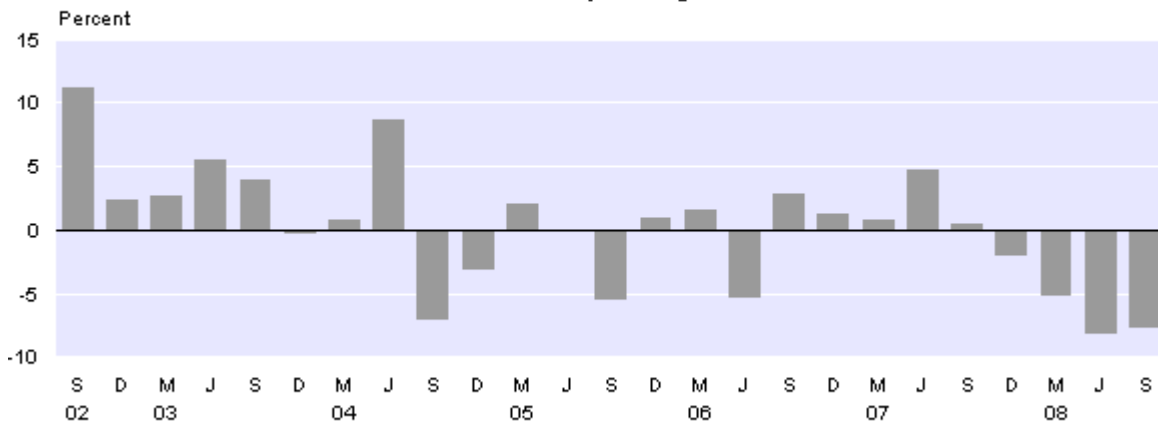


(1) Seasonally adjusted chain-volume series expressed in 1995/96 prices.

Expenditure on services decreased 0.5 percent in the September 2008 quarter, following a 0.8 percent increase in the June 2008 quarter. Recreation admission charges contributed the most to the latest decrease, down 5.4 percent. Expenditure on tourist accommodation and domestic air

travel also decreased, down 4.9 percent and 3.6 percent, respectively.

Gross Fixed Capital Formation: Residential Buildings⁽¹⁾
Quarterly change



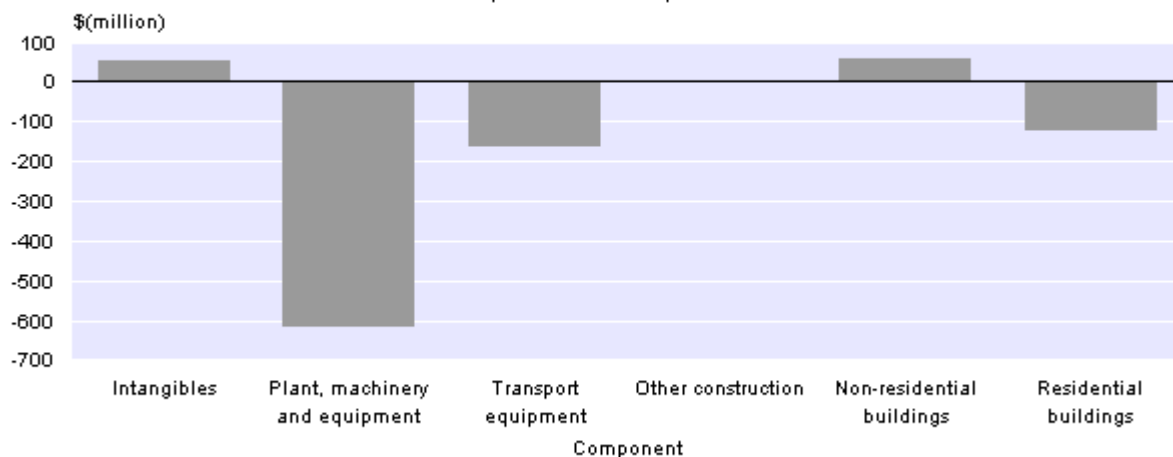
(1) Seasonally adjusted chain-volume series expressed in 1995/96 prices.

Investment in new housing was down 7.7 percent in the September 2008 quarter, following decreases of 5.2 percent and 8.2 percent in the March and June 2008 quarters, respectively. Residential building activity was down 7.9 percent as reported in the *Value of Building Work Put in Place: September 2008 quarter* release. For the year ended September 2008, investment in residential building decreased 9.7 percent.

Business investment

Business investment in fixed assets decreased 8.6 percent in the September 2008 quarter, following an increase of 4.0 percent in the June 2008 quarter. For the year ended September 2008, business investment in fixed assets rose 3.1 percent compared with an increase of 3.2 percent for the year ended September 2007.

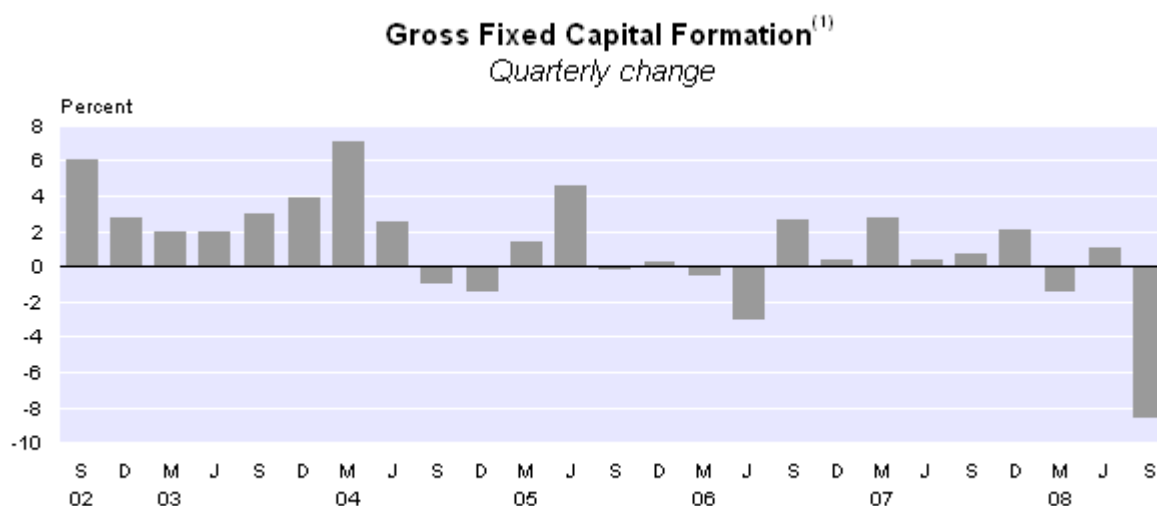
Gross Fixed Capital Formation⁽¹⁾
Quarterly change in components
 September 2008 quarter



(1) Seasonally adjusted chain-volume series expressed in 1995/96 prices.

Investment in plant and machinery fell 15.6 percent in the September 2008 quarter, following a 10.3 percent increase in the June 2008 quarter. Imports of plant and machinery capital goods were

down 18.0 percent in the latest quarter, partly due to some one-off items related to the oil industry that were imported in the June 2008 quarter.



(1) Seasonally adjusted chain-volume series expressed in 1995/96 prices.

Investment in transport equipment also decreased in the September 2008 quarter, down 18.2 percent. Offsetting these decreases were increases in investment of non-residential buildings and intangible assets, which includes investment in software and mineral exploration. Non-residential building activity was up 5.8 percent as reported in the *Value of Building Work Put in Place: September 2008 quarter* release.

In the September 2008 quarter, manufacturing inventories provided the largest contribution to the increase in inventories, with a build up of \$308 million. While manufacturing inventories increased, activity in the manufacturing industry declined 2.5 percent. Agriculture and forestry inventories also increased in the latest quarter, while distribution reported a run down in inventories. Overall total inventories have built up \$246 million in the September 2008 quarter.

Government

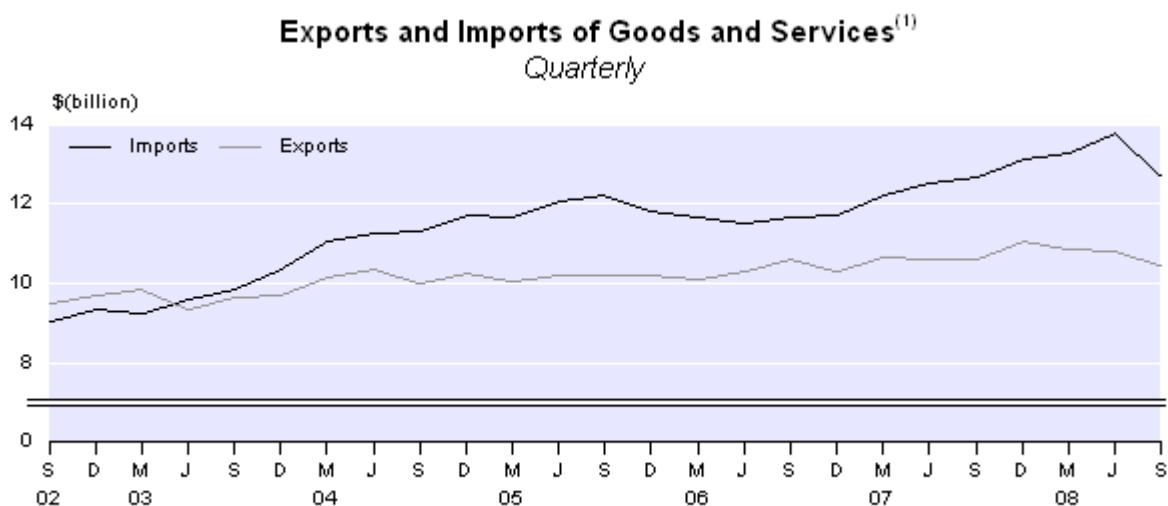
General government final consumption expenditure increased 1.0 percent in the September 2008 quarter, and was up 4.0 percent for the year ended September 2008. Central government recorded an increase in expenditure of 0.9 percent in the quarter, with increases in health, and public order and safety spending the main contributors. Local government final consumption expenditure increased 2.3 percent in the September 2008 quarter.

Exports and imports

Export volumes decreased 3.1 percent in the September 2008 quarter, following a 0.3 percent decrease in the previous quarter. Export volumes for the year ended September 2008 were up 2.4 percent – an identical increase to that of the year ended September 2007.

The volume of goods exported decreased 2.6 percent in the September 2008 quarter. Decreased export volumes of agriculture and fishing primary products (down 12.9 percent), dairy products (down 5.0 percent) and other food, beverages and tobacco (down 7.0 percent) were the largest contributors to the decline. The only export groups to increase in the September 2008 quarter were forestry products (up 20.7 percent) and wood and paper products (up 2.1 percent).

Exports of services were down 3.4 percent in the September 2008 quarter. Exports of travel services decreased 6.3 percent this quarter, following an increase of 2.0 percent in the previous quarter. Miscellaneous service exports also decreased in the latest quarter, down 5.7 percent. This category covers services such as merchanting, accounting and consulting.



(1) Seasonally adjusted chain-volume series expressed in 1995/96 prices.

Import volumes were down 7.6 percent in the September 2008 quarter. On an annual basis, import volumes were up 7.5 percent in the year to September 2008, compared with an increase of 5.3 percent in the year to September 2007. Merchandise import volumes decreased 6.6 percent while imports of services decreased 7.3 percent in the September 2008 quarter.

Imports of capital equipment were down 25.6 percent in the September 2008 quarter. Imports of machinery and plant decreased this quarter, down 18.0 percent, following an increase of 22.0 percent in the June 2008 quarter. Investment in plant machinery and equipment decreased 15.6 percent over the same period. The large movements are partly due to the importing of large one-off items related to the oil industry in the June 2008 quarter. Imported volumes of transport equipment also decreased in the September 2008 quarter, down 34.7 percent.

Imports of consumption goods decreased 4.1 percent in the September 2008 quarter and imports of intermediate goods decreased 2.9 percent.

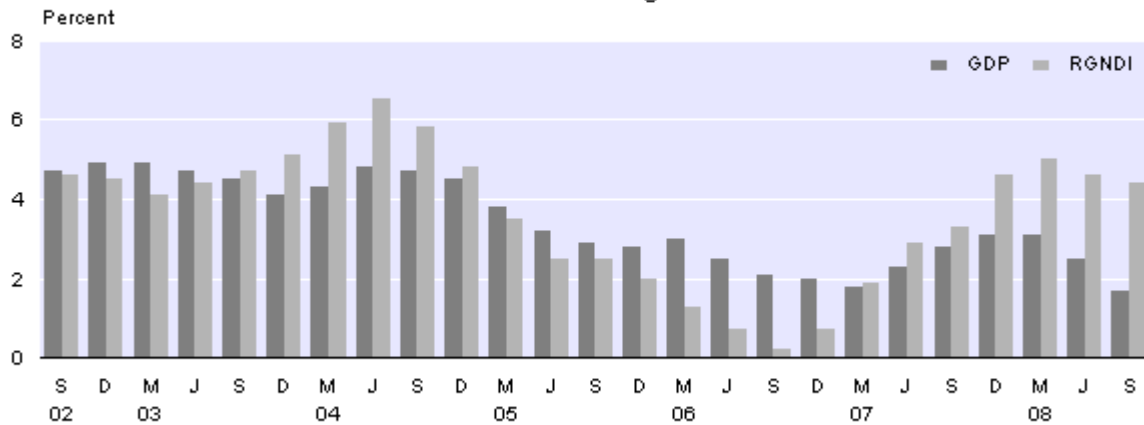
Imports of services decreased 7.3 percent in the September 2008 quarter, mostly due to decreases in miscellaneous services. The *Balance of Payments and International Investment Position: September 2008 quarter* release reported that imports of services relating to oil exploration and production decreased in the quarter. Imports of travel services decreased 4.9 percent in the September 2008 quarter.

Real gross national disposable income

Real Gross National Disposable Income (RGNDI) increased 4.4 percent for the year ended September 2008, while GDP increased 1.7 percent over the same period.

Gross Domestic Product and Real Gross National Disposable Income⁽¹⁾

Annual change



(1) Actual chain-volume series expressed in 1995/96 prices.

GDP is a measure of economic activity. RGNDI is a measure of the volumes of goods and services that New Zealand residents have command over. It takes into account changes in the terms of trade effect (the price of imports relative to the price of exports), and real gains from net investment and transfer income with the rest of the world.

The relatively higher growth in annual RGNDI when compared with GDP annual growth is a result of a strong growth in terms of trade in the first two quarters of the year to September 2008. While the merchandise terms of trade index decreased 2.3 percent in the September 2008 quarter, it increased 4.4 percent in the year to September 2008.

Implicit price deflators

The GDP implicit price deflator (IPD) for the year ended September 2008 increased 4.7 percent. The GDP IPD is a broad measure of the overall price change for final goods and services produced in New Zealand.

The IPD for gross national expenditure (GNE) was up 3.1 percent for the year ended September 2008. This provides a broad measure of the overall price change for final goods and services purchased in New Zealand (such as consumer and investment goods).

Revisions this quarter:

Production measure

- Since the June 2008 quarter release, the construction, property and business services, and central and local government administration industries have been revised due to the incorporation of annual data released in National Accounts: Year ended March 2008 on 13 November 2008. The Forestry and logging industry has been revised for the June 2008 quarter, due to updated roundwood removals data sourced from the Ministry of Agriculture and Forestry.
- Updated information from the Wholesale Trade Survey has flowed through to the wholesale trade series for quarterly GDP.
- GST has been revised, due to updated estimates of household consumption expenditure.

- Transport and finance and insurance services have been revised due to updated source data.
- Agriculture value added for the June 2008 quarter has been revised due to updated source data. Agriculture revised in the quarter from a slight negative movement to a slight positive movement. Overall activity in agriculture for the June 2008 quarter remains flat.

Expenditure measure

- Since the June 2008 quarter release, private household consumption expenditure, gross fixed capital formation, change in inventories, and general government final consumption expenditure have been revised due to the incorporation of annual current price expenditure data released in *National Accounts: Year ended March 2008* on 13 November 2008.
- Revisions have been made to historical production and expenditure general government as a result of further confirmation of the Government Income and Outlay Accounts against the National Accounts (1987–2007)
- The June 2008 quarter forestry inventory change has been revised, due to updated roundwood removals data sourced from the Ministry of Agriculture and Forestry.
- Exports and imports data have been revised, due to previously provisional June 2008 quarter data becoming final and Balance of Payments revisions flowing through, as released in *Balance of Payments and International Investment Position: September 2008 quarter* on 22 December 2008.
- All components have been revised as a result of the updating of annual chain-linking weights in the September 2008 quarter.
- The annual current price manufacturing change in inventories for the year ended March 2007 has been revised since the release of the *National Accounts: Year ended March 2008* on 13 November 2008. This revision was a result of new source data being incorporated into the annual measure.

For technical information contact:
 Annabel Montgomery or Anqi Tan
 Wellington 04 931 4600
Email: info@stats.govt.nz

Next release...

Gross Domestic Product: December 2008 quarter will be released on 27 March 2009.

Technical notes

First available information for September 2008 quarter

Statistics in the attached tables provide the first available information on the chain-volume measure of gross domestic product (GDP) for the December 2008 quarter.

Statistics for recent periods are based on information available at time of publication and are subject to revision as additional or improved data becomes available.

Quarterly Gross Domestic Product, Sources and Methods

The second edition of the *Quarterly Gross Domestic Product, Sources and Methods* was released on 20 June 2008. It provides an update of the sources and methods used for all quarterly GDP series produced by Statistics New Zealand, in both chain-volume measures and current prices. Significant changes to compilation methods and data sources have been introduced since the publication of the first edition of this report in 1996. These include implementation of the new international standard, the System of National Accounts 1993; rebasing of the constant price series from 1991/92 to 1995/96 prices; introduction of chain-linking; and adoption of a new industry classification, the Australian and New Zealand Standard Industrial Classification 1996 (ANZSIC96).

A pdf version of *Quarterly Gross Domestic Product: Sources and Methods* is available for free at www.stats.govt.nz, or contact the information centre (call toll-free 0508 525 525 or email info@stats.govt.nz) to purchase a hard copy.

Chain-volume series expressed in 1995/96 prices

The series in this release are chain-linked and expressed in the average prices of the 1995/96 year. They are best described as annually reweighted chained Laspeyres volume indexes. Series are expressed in 1995/96 dollars rather than as index numbers, since this has the advantage of showing the relative size of each component.

The chain-volume measures of GDP and expenditure on GDP are constructed by: (a) compiling a Laspeyres volume index of the component in question, using the previous year's prices as weights; and then (b) chaining the sequence of annual movements to produce a continuous time series. This procedure is used at different levels within the accounts. For example, GDP is compiled by weighting together the individual industry value-added components to produce a Laspeyres volume index for each quarter, then linking the resulting indexes to produce the GDP time series. Each industry component, such as transport and communication, is also a chained-volume series. At this lowest level, the 'elemental series' are not chained, and are either single series in their own right or fixed-weight series comprising a number of components. Chaining is not adopted, either because relative price changes are not considered significant or (and this is the more likely scenario) the detailed information needed for annual weights is not available.

It is important to note that chain-volume series are not additive (ie the chain-volume series for an aggregate will not equal the sum of the values of its components). This is explained more fully in the report Chain Volume Measures in National Accounts (see below).

In most cases, the industry 'elemental series' estimates that make up the production-based GDP are calculated by extrapolating value added, using indicator series that represent the quantities of output produced. The technique known as double deflation, by which volume value added is calculated as the difference between volume outputs and inputs, is not widely used. It is currently used for the agriculture and electricity industries on a quarterly basis, and for water transport, business services, cultural and recreational services and personal and other services on an annual basis.

Further information on chain-volume series is contained in the report *Chain Volume Measures in National Accounts*, available from our website at www.stats.govt.nz. This report, published as a discussion document in 1998, contains a detailed discussion of the concepts and procedures used to compile chain-volume series.

Production-based measure the preferred series

Conceptually, both the production- and expenditure-based GDP series are the same. However, as each series uses independent data and estimation techniques, some differences between the alternative measures arise. The expenditure-based series has historically shown more quarterly volatility and is more likely to be subject to timing and valuation problems. For these reasons, the production-based measure is the preferred measure for quarter-on-quarter and annual changes.

Implicit price deflators

Table 5.1 contains implicit price deflators (IPDs) for expenditure on GDP and its components. IPDs provide a broad measure of price change for total economic activity and each of the expenditure components. They are calculated by dividing the seasonally adjusted current price quarterly series by the equivalent chain-volume series, and consequently provide an estimate of price change between the base period and any other period, using the quantity weights in the latter period. Because weights change from period to period, a change in an IPD between any two periods, neither of which is the base period, reflects changes in both actual prices and weights or compositional changes. Significant compositional changes may result in the IPDs being an unreliable estimate of price change. This problem is more likely to occur in the gross national expenditure and expenditure on GDP aggregates, because both include the change in inventories item, which is subject to extreme compositional changes, including a change in sign.

Revisions policy

Revisions to the previously published series may be made each quarter. The frequency and cause of these revisions are as follows:

- Quarterly: additional data becoming available for the latest quarters, which is used to replace existing estimates; revisions to quarterly data (eg revisions to the Balance of Payments or Retail Trade Survey), which will be incorporated as soon as possible to maintain consistency between published macro-economic statistics.
- Annual: introduction of annual data following the release of the latest annual national accounts each year; annual updating of the weights used to combine component series to totals and subsequent chaining (see below).
- Irregular: for example methodological changes. However, note that revisions of this nature are, as far as possible, incorporated to coincide with the annual cycle of revisions outlined above.

In addition, each of the above causes for revision, and/or the addition of a new point in the actual quarterly series, has the potential to alter seasonal factors and therefore may lead to a revision in the seasonally adjusted series.

Revisions will also occur as a result of the quarterly improvement project described below.

National accounts quality improvement project

A number of potential improvements to the annual and quarterly national accounts have been identified and prioritised. These improvements relate to data sources, methods and processes. Over the coming years, a number of quality improvement projects will be undertaken and the outcomes from these projects incorporated into the annual and quarterly national accounts statistics.

Revisions resulting from chain-linking

One of the key benefits gained through adopting chain-volume measures in place of fixed-weight series is that the relative weights of the component series are more up to date. This reduces the likelihood of introducing biases in the volume measures, which would otherwise become progressively unrepresentative as relative prices change. However, the disadvantage is that the annual reweighting introduces another cause for revision.

Reweighting is part of the annual revisions cycle and is usually timed to coincide with the introduction of other new annual data from the current price GDP accounts. These changes are normally incorporated in the September quarter release, which is published at the end of December.

The current price annual accounts provide the detailed component series needed for weighting the production-based series of GDP. There is currently a three-year time lag before these detailed series are available. As a result, the latest year for which up-to-date weights have been used for the production-based series is for the year ended 31 March 2005, and all subsequent quarters use these weights.

Current price data is available on a more timely basis for the components making up the expenditure-based measure of GDP. As a result, the latest year for which up-to-date weights have been used for the expenditure-based series is for the year ended 31 March 2007, and all subsequent quarters use these weights.

When the weights are updated each year, this procedure results in revisions to all periods beyond the latest year for which detailed series are available (currently 2004/05 for the production-based measure and 2006/07 for the expenditure-based measure).

Direct and indirect seasonal adjustment

The level at which a series is seasonally adjusted is important, since it has the potential to affect the quality of that seasonally adjusted series. The individual component series of the main economic variables can be seasonally adjusted and then summed to derive totals. This is called an indirect seasonal adjustment. Alternatively, the main economic variables can be seasonally adjusted at the total level, independently of the seasonal adjustment of their components. The adjustment of the total of an aggregate series is called a direct seasonal adjustment. The indirect

approach has the advantage of retaining additivity, but this applies only to the current price series. While the indirect approach conceptually also provides additivity for volume series, additivity is lost by chain-linking.

The direct approach will often give better results if the component series show similar seasonal patterns. At the most detailed level, the irregular factor may be large compared with the seasonal factor and therefore may make it difficult to perform a proper seasonal adjustment. In a small country such as New Zealand, irregular events can have a strong impact on particular data. However, if the component series show the same seasonal pattern, aggregation often reduces the impact of the irregular factors in the component series. This is particularly relevant for New Zealand, where many economic series are affected by seasonal fluctuations in the primary industries.

Statistics NZ has analysed both the direct and indirect approaches for the two quarterly GDP aggregates: production and expenditure on GDP. The direct approach has been chosen as the preferred method because the resulting series are smoother and more stable.

The residual between the seasonally adjusted components and the aggregates is referred to as the balancing item (see tables 1.2 and 1.3). The balancing item will often show significant seasonal variations. This is to be expected, as it captures the undetected seasonality in the component series.

The level at which seasonal adjustment is applied to quarterly GDP series may differ from other Statistics NZ surveys (eg the Economic Survey of Manufacturing and the Wholesale Trade Survey). These may contribute to differences in the aggregate seasonally adjusted series.

Broad industry groups

In tables 2.1 and 2.4, industry groups are combined to form the following broad groupings, based on the Australian and New Zealand Standard Industrial Classification (ANZSIC96):

- primary industries (agriculture; fishing, forestry and mining)
- goods-producing industries (manufacturing; electricity, gas and water; construction)
- service industries (wholesale trade; retail, accommodation and restaurants; transport and communications; finance, insurance and business services; government administration and defence; personal and community services).

In addition to these industrial groupings there exists an 'unallocated' category, which includes unallocated taxes on production and imports (import duties, GST, and taxes on capital transactions), and the nominal industry, which is constructed to account for the unallocated finance service charge.

Final consumption expenditure

Private final consumption expenditure is the sum of household outlays on consumer goods and services, and the expenditure on non-capital items by private non-profit organisations serving households. General government final consumption expenditure includes both central and local government, as well as health and education.

Annual percentage changes

When using annual percentage changes, care should be taken to ensure that the measures used are correctly understood. Those in tables 2.4, 2.5 and 3.3 compare the level of economic activity in the latest quarter with the level of activity in the corresponding quarter 12 months earlier. Tables 2.7 and 3.5, on the other hand, display the percentage change in the level of GDP and expenditure on GDP, respectively, for the annual period each quarter, compared with the same period one year earlier. Annual measures are calculated by summing the series for each four-quarter period, dividing by the sum of the series of the preceding four quarters, and then expressing this as a percentage.

Real gross national disposable income

Gross national disposable income is the income received (less income payable) by New Zealand residents, from both domestic and overseas sources, after taking account of income redistribution by way of international transfers, or gross national income plus international transfers.

Real gross national disposable income (RGNDI) measures the real purchasing power of national disposable income, taking into account changes in the terms of trade, and real gains from net investment and transfer income with the rest of the world. Effectively, it is a measure of the volume of goods and services New Zealand residents have command over.

RGNDI is calculated as follows:

	chain-volume measure of GDP (production-based measure)
plus	a terms of trade effect (trading gain/loss)
equals	real gross domestic income
plus	real value of total net investment income
equals	real gross national income
plus	real value of total net transfers
equals	RGNDI

where the terms of trade effect is defined as:

	current price exports deflated by an imports implicit price index
less	chain-volume measure of exports

and the real value of total net investment income equals:

	investment income credits
less	investment income debits

all deflated by an imports implicit price index

and the real value of total net transfers equals:

	transfers credits
	less transfers debits

all deflated by an imports implicit price index.

A per capita measure is simply the series in question divided by the population of New Zealand. From the March 1991 quarter onwards, the definition used is the 'estimated resident population of

New Zealand'. This is defined as New Zealand residents currently in New Zealand plus those temporarily overseas. Overseas tourists visiting New Zealand are excluded from this measure. Prior to March 1991, the definition used is the 'de facto' population, which excludes New Zealand residents temporarily overseas and includes overseas tourists in New Zealand. Apart from the definitional change, there is also a slight discontinuity at this point, as the series from March 1991 onwards includes an allowance for the census undercount.

More information

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

Copyright

Information obtained from Statistics NZ may be freely used, reproduced, or quoted unless otherwise specified. In all cases Statistics NZ must be acknowledged as the source.

Liability

While care has been used in processing, analysing and extracting information, Statistics NZ gives no warranty that the information supplied is free from error. Statistics NZ shall not be liable for any loss suffered through the use, directly or indirectly, of any information, product or service.

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.

- 1.1 Gross domestic product, revisions summary
- 1.2 Gross domestic product by industry, chain-volume series expressed in 1995/96 prices
- 1.3 Expenditure on gross domestic product, chain-volume series expressed in 1995/96 prices
- 2.1 Gross domestic product by broad industry group, chain-volume series expressed in 1995/96 prices
- 2.2 Gross domestic product by industry, seasonally adjusted chain-volume series expressed in 1995/96 prices
- 2.3 Gross domestic product by industry, seasonally adjusted chain-volume series expressed in 1995/96 prices, percentage change from previous quarter
- 2.4 Gross domestic product by broad industry group, seasonally adjusted chain-volume series expressed in 1995/96 prices, values and percentage change from same quarter of previous year
- 2.5 Gross domestic product by industry, seasonally adjusted chain-volume series expressed in 1995/96 prices, percentage change from same quarter of previous year
- 2.6 Gross domestic product by industry, actual chain-volume series expressed in 1995/96 prices
- 2.7 Gross domestic product by industry, actual chain-volume series expressed in 1995/96 prices, percentage change in annual values
- 3.1 Expenditure on gross domestic product, seasonally adjusted chain-volume series expressed in 1995/96 prices
- 3.2 Expenditure on gross domestic product, seasonally adjusted chain-volume series expressed in 1995/96 prices, percentage change from previous quarter
- 3.3 Expenditure on gross domestic product, seasonally adjusted chain-volume series expressed in 1995/96 prices, percentage change from same quarter of previous year
- 3.4 Expenditure on gross domestic product, actual chain-volume series expressed in 1995/96 prices
- 3.5 Expenditure on gross domestic product, actual chain-volume series expressed in 1995/96 prices, percentage change in annual values
- 4.1 Expenditure on gross domestic product, seasonally adjusted current prices
- 4.2 Expenditure on gross domestic product, actual current prices
- 5.1 Index of implicit price deflators, 1995/96 = 1000
- 5.2 Index of implicit price deflators, 1995/96 = 1000, seasonally adjusted series percentage change from previous quarter
- 5.3 Index of implicit price deflators, 1995/96 = 1000, percentage change in annual values
- 6.1 Summary statistics
- 6.2 Summary statistics, percentage change in annual values

Analytical tables

The following tables can 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.

GDP(P) Chain-volume		GDP(E) Deflators	
Table 1P1	Gross domestic product by industry, seasonally adjusted chain-volume	Table 3A1	Implicit price deflators, 1995/96 = 1000

	series expressed in 1995/96 prices		
Table 1P2	Gross domestic product by industry, actual chain-volume series expressed in 1995/96 prices	Table 3A2	Implicit price deflators, 1995/96 = 1000, seasonally adjusted series percentage change from previous quarter
Table 1P3	Gross domestic product by industry, annual chain-volume series expressed in 1995/96 prices		

GDP(E) Chain-volume		GDP(E) Current prices	
Table 1A1	Expenditure on gross domestic product, actual chain-volume series expressed in 1995/96 prices	Table 2A1	Expenditure on gross domestic product, actual current prices
Table 1A2	Expenditure on gross domestic product, seasonally adjusted chain-volume series expressed in 1995/96 prices	Table 2A2	Expenditure on gross domestic product, seasonally adjusted current prices
Table 1A3	Expenditure on gross domestic product, seasonally adjusted chain-volume series expressed in 1995/96 prices, percentage change from previous quarter		
Table 1B1	Private final consumption expenditure by type, actual chain-volume series expressed in 1995/96 prices	Table 2B1	Private final consumption expenditure by type, actual current prices
Table 1B2	Household consumption expenditure by purpose, actual chain-volume series expressed in 1995/96 prices	Table 2B2	Household consumption expenditure by purpose, actual current prices
Table 1B3	Private final consumption expenditure by type, seasonally adjusted chain-volume series expressed in 1995/96 prices	Table 2B3	Private final consumption expenditure by type, seasonally adjusted current prices
Table 1B4	Household consumption expenditure by purpose, seasonally adjusted chain-volume series expressed in 1995/96 prices	Table 2B4	Household consumption expenditure by purpose, seasonally adjusted current prices

GDP(E) Chain-volume		GDP(E) Current prices	
Table 1C1	Government final consumption expenditure, actual chain-volume series expressed in 1995/96 prices	Table 2C1	Government final consumption expenditure, actual current prices
Table 1C2	Government final consumption expenditure, seasonally adjusted chain-volume series expressed in 1995/96 prices	Table 2C2	Government final consumption expenditure, seasonally adjusted current prices
Table 1D1	Change in inventories, actual chain-volume series expressed in 1995/96 prices	Table 2D1	Change in inventories, actual current prices
Table 1D2	Change in inventories, seasonally adjusted chain-volume series expressed in 1995/96 prices	Table 2D2	Change in inventories, seasonally adjusted current prices
Table 1E1	Gross fixed capital formation, all sectors by asset type, actual chain-volume series expressed in 1995/96 prices	Table 2E1	Gross fixed capital formation, all sectors by asset type, actual current prices
Table 1E2	Gross fixed capital formation, all sectors by asset type, seasonally adjusted chain-volume series expressed in 1995/96 prices	Table 2E2	Gross fixed capital formation, all sectors by asset type, seasonally adjusted current prices
Table 1E3	Gross fixed capital formation by sector, actual chain-volume series expressed in 1995/96 prices	Table 2E3	Gross fixed capital formation by sector, actual current prices
Table 1E4	Gross fixed capital formation by sector, seasonally adjusted chain-volume series expressed in 1995/96 prices	Table 2E4	Gross fixed capital formation by sector, seasonally adjusted current prices
Table 1F1	Exports of goods and services, actual chain-volume series expressed in 1995/96 prices	Table 2F1	Exports of goods and services, actual current prices
Table 1F2	Exports of goods and services, seasonally adjusted chain-volume series expressed in 1995/96 prices	Table 2F2	Exports of goods and services, seasonally adjusted current prices
Table 1F3	Exports of goods and services, chain-volume series expressed in 1995/96 prices	Table 2F3	Exports of goods and services, current prices
Table 1G1	Imports of goods and services, actual chain-volume series expressed in 1995/96 prices	Table 2G1	Imports of goods and services, actual current prices
Table 1G2	Imports of goods and services, seasonally adjusted chain-volume series expressed in 1995/96 prices	Table 2G2	Imports of goods and services, seasonally adjusted current prices

Table 1G3	Imports of goods and services, chain- volume series expressed in 1995/96 prices	Table 2G3	Imports of goods and services, current prices
--------------	---	--------------	--