

Embargoed until 10:45am – 24 June 2010

## Gross Domestic Product: March 2010 quarter

### Highlights

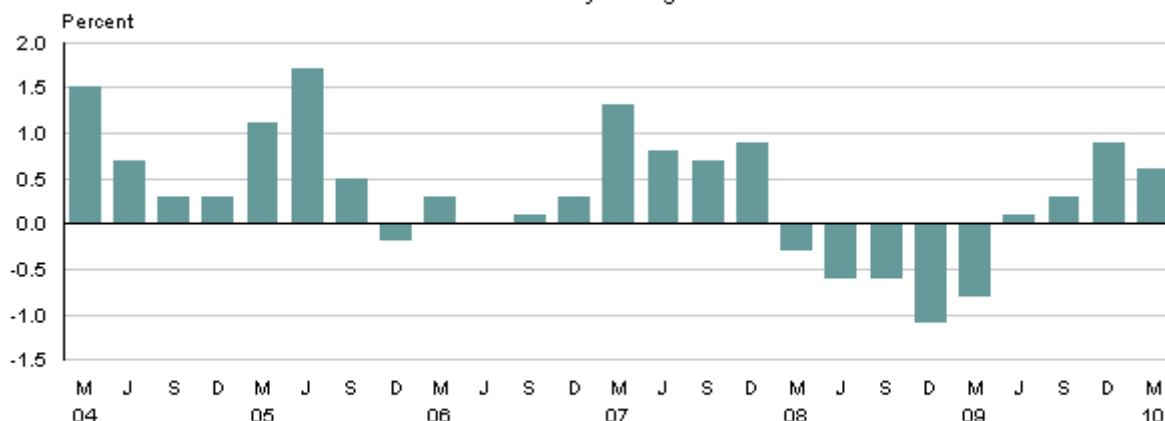
Gross domestic product (GDP):

- Economic activity was up 0.6 percent in the March 2010 quarter, following a 0.9 percent increase in the December 2009 quarter.
- Manufacturing activity was up 1.6 percent, and wholesale trade activity was up 1.4 percent.
- Gross domestic product contracted 0.4 percent in the year ended March 2010 compared with the year ended March 2009.

On the expenditure measure of GDP:

- The expenditure measure of GDP was also up 0.6 percent in the March 2010 quarter.
- Household consumption expenditure was up 0.2 percent.
- General government final consumption expenditure was up 1.7 percent.

Gross domestic product <sup>(1)</sup>  
Quarterly change



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

Source: Statistics New Zealand

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## Commentary

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

### New Zealand economy grows 0.6 percent

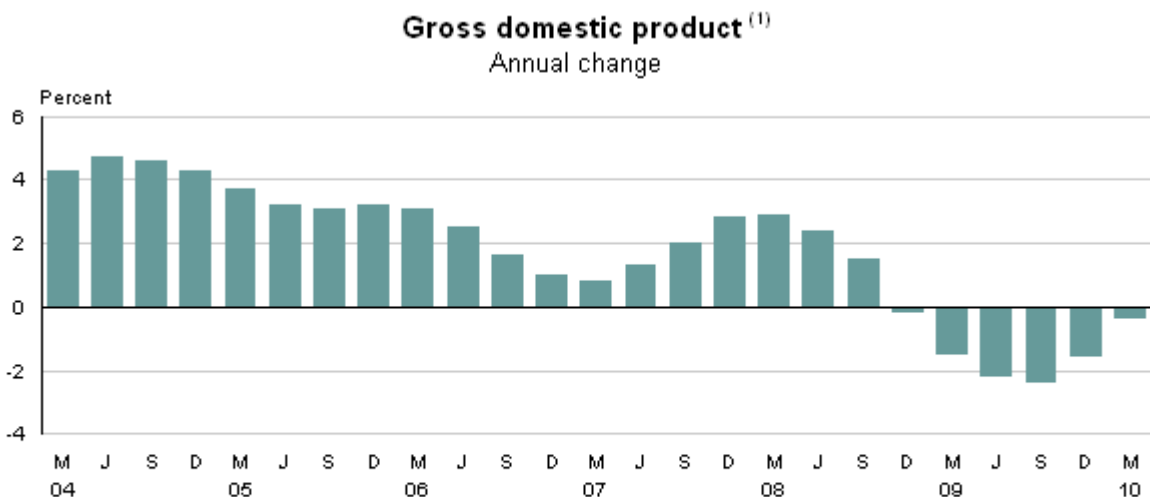
Gross domestic product was up 0.6 percent in the March 2010 quarter, following growth of 0.9 percent in the December 2009 quarter.

In the March 2010 quarter, the growth in economic activity was mainly due to the primary and goods-producing industries, while activity in the services industries remained flat.

The main movements by industry this quarter were:

- Manufacturing (up 1.6 percent). Machinery and equipment, and metal product manufacturing were the largest contributors to the increase this quarter.
- Wholesale trade (up 1.4 percent). This is the second quarter of growth in wholesale trade, following seven quarters of decline.
- Forestry and logging (up 5.3 percent). This activity in logging is related to overseas demand for New Zealand logs, which is reflected in exports of wood products.
- Communications (down 2.0 percent), due to fewer phone call minutes being recorded for both fixed line and mobile phones.

Activity in the March 2010 quarter was up 1.9 percent when compared with the March 2009 quarter. This contrasts with a decrease of 3.1 percent between the March 2008 and March 2009 quarters, when the economy was contracting. Economic activity for the four quarters ended March 2010 was 0.4 percent lower than for the year ended March 2009. This highlights the fact that the economy has not yet returned to the level of activity before the recession.



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

Source: Statistics New Zealand

The expenditure measure of GDP also increased 0.6 percent in the March 2010 quarter. The expenditure and production measures of GDP are conceptually the same. The production measure of GDP measures the volume of goods and services produced in the economy, while

the expenditure measure shows how those goods and services were used.

The main movements in the expenditure measure of GDP this quarter were:

- Household consumption expenditure (up 0.2 percent). An increase in the volume of durable goods purchased by households was partly offset by decreases in non-durables, and services.
- Gross fixed capital formation (up 0.8 percent). The largest upward contribution came from investment in intangibles, linked to oil exploration.
- General government expenditure (up 1.7 percent). Most of this increase was due to the acquisition of the *HMNZS Otago* during the quarter.

## Gross domestic product by industry

### Primary industries

Activity in primary industries increased 1.7 percent in the March 2010 quarter, following a 0.5 percent decrease in the December 2009 quarter. The forestry, mining, and agricultural industries were the main contributors to the increase in primary industries this quarter.

Fishing, forestry, and mining activity increased 3.2 percent in the March 2010 quarter. The mining industry increased 4.5 percent as a result of coal, oil and gas extraction activity. During the March 2010 quarter, Kupe reached full production; however this was partly offset by a general fall in production across all other oil and gas fields. Forestry also recorded growth in the March 2010 quarter, driven by international demand for logs reflected in the exports in the expenditure measure of GDP. Fishing activity, a small and variable industry, declined 24.5 percent.

**Fishing, forestry, and mining<sup>(1)</sup>**  
Quarterly change



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

Source: Statistics New Zealand

Agricultural activity increased 0.8 percent in the March 2010 quarter as a result of increased milk production, partly offset by a decline in livestock production. Dairy production was up this quarter across the country, despite the impact of drought conditions in some regions.

For the year ended March 2010, primary industry activity increased 3.4 percent. This compares with a 1.0 percent decrease for the year ended March 2009.

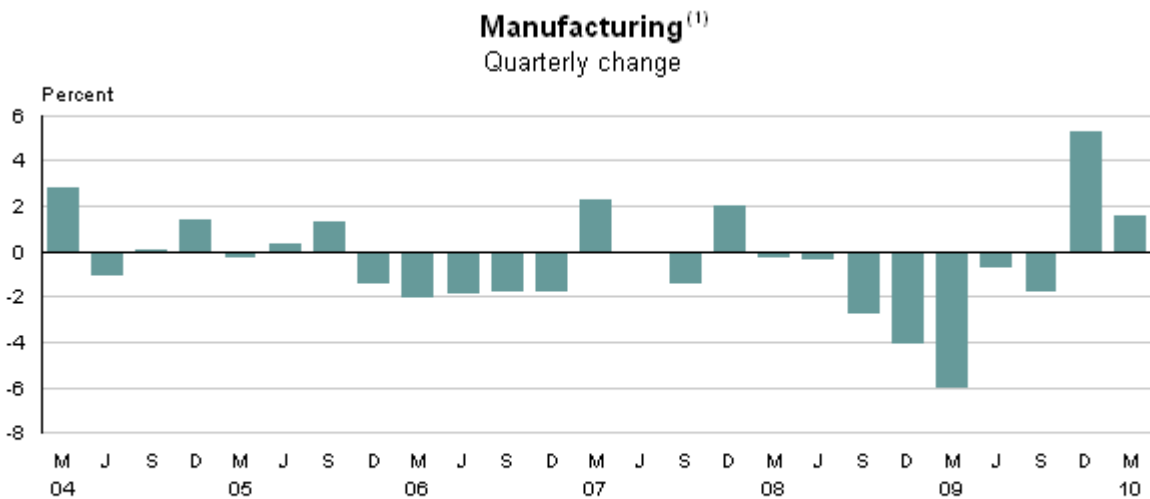
## Goods-producing industries

Activity in goods-producing industries increased 1.0 percent during the March 2010 quarter, following a 3.7 percent increase in the December 2009 quarter. For a second consecutive quarter it was driven by an increase in manufacturing activity (up 1.6 percent).

The largest contributors to the increase in manufacturing activity in the March 2010 quarter were:

- machinery and equipment manufacturing (up 7.7 percent)
- metal product manufacturing (up 7.2 percent)
- petroleum, chemical, plastic, and rubber product manufacturing (up 3.6 percent). This is reflected in increased exports of these types of products.

The only significant decrease in manufacturing activity was in food, beverage, and tobacco manufacturing (down 2.5 percent).



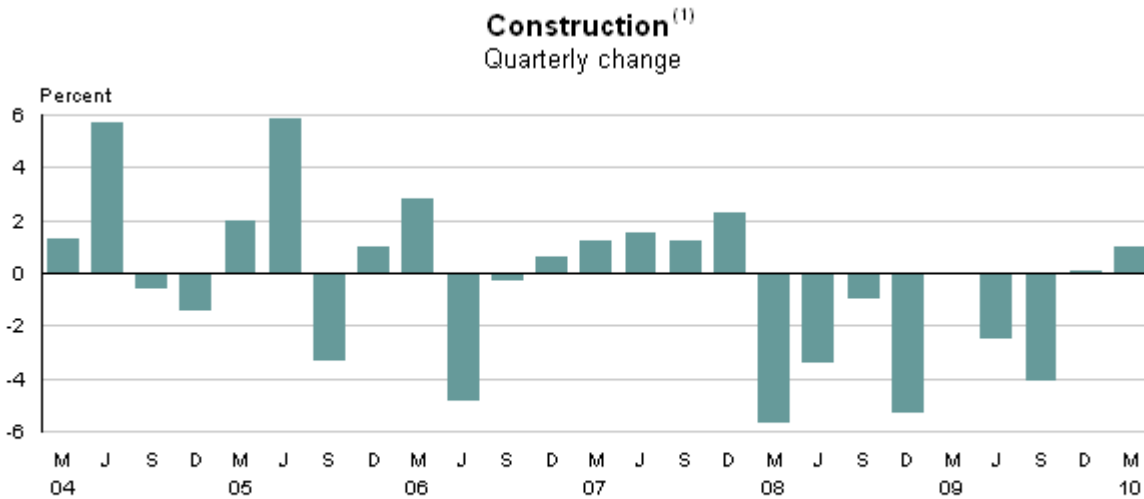
1. Seasonally adjusted chain-volume series expressed in 1995/96 prices.

Source: Statistics New Zealand

It is important to note that differences between the GDP measure of manufacturing and the Economic Survey of Manufacturing (QMS), are due to the non-standard quarter in QMS for primary food manufacturing. For example, GDP in a March quarter includes primary food values for the months of January, February, and March; but in QMS the March quarter includes values for the months December, January, and February.

Activity in the construction industry increased (up 1.0 percent), following a 0.1 percent increase in the December 2009 quarter. This is the second quarter of growth in construction activity, following seven quarters of decline. Electricity, gas, and water activity decreased 2.2 percent in

the March 2010 quarter.



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

Source: Statistics New Zealand

For the year ended March 2010, goods-producing industries declined 5.7 percent, the same decrease as for the year ended March 2009.

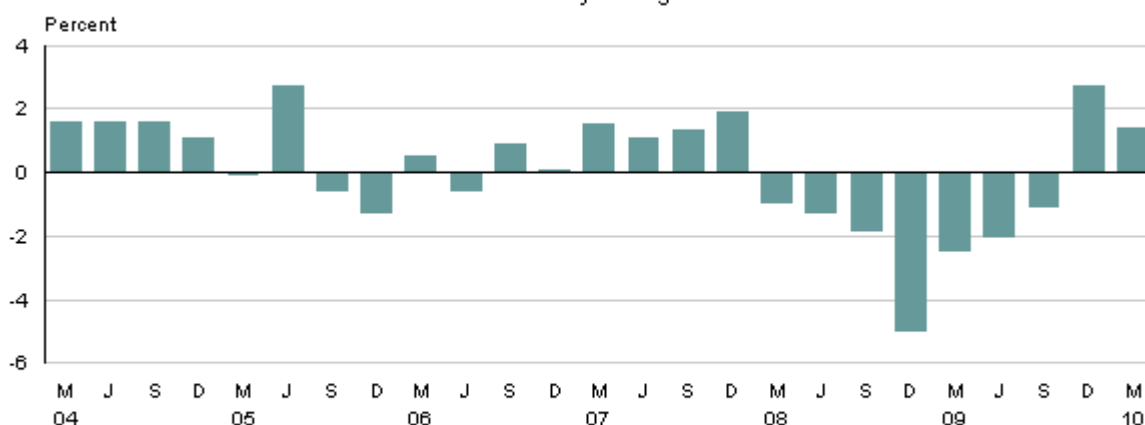
### Services industries

Activity in the services industries remained flat during the March 2010 quarter, as a result of a mixed picture across the category's industries. This follows a 0.3 percent increase in the December 2009 quarter.

Of the industries with increased activity, rises were recorded in:

- wholesale trade (up 1.4 percent). This is the second quarter of growth in wholesale trade following seven quarters of decline. One of the main contributors to growth in wholesale trade this quarter was motor vehicles.
- personal and community services (up 0.3 percent); an increase in health services was partly offset by reduced activity in culture and recreation.

## Wholesale value added<sup>(1)</sup> Quarterly change



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

Source: Statistics New Zealand

Decreased activity in the March 2010 quarter was seen in:

- retail, accommodation and restaurants (down 0.8 percent)
- government administration and defence (down 0.6 percent)
- finance, insurance and business services (down 0.2 percent)
- transport and communication (down 0.1 percent).

The decrease in transport and communication was a result of a decrease in communication activity arising from lower call volumes, partly offset by an increase in transport and storage activity.

For the year ended March 2010, services industries increased 1.1 percent, compared with a 0.5 percent increase for the year ended March 2009.

## Expenditure on gross domestic product

Expenditure on GDP increased 0.6 percent in the March 2010 quarter, following a 0.9 percent increase in the December 2009 quarter. While the production-based 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.

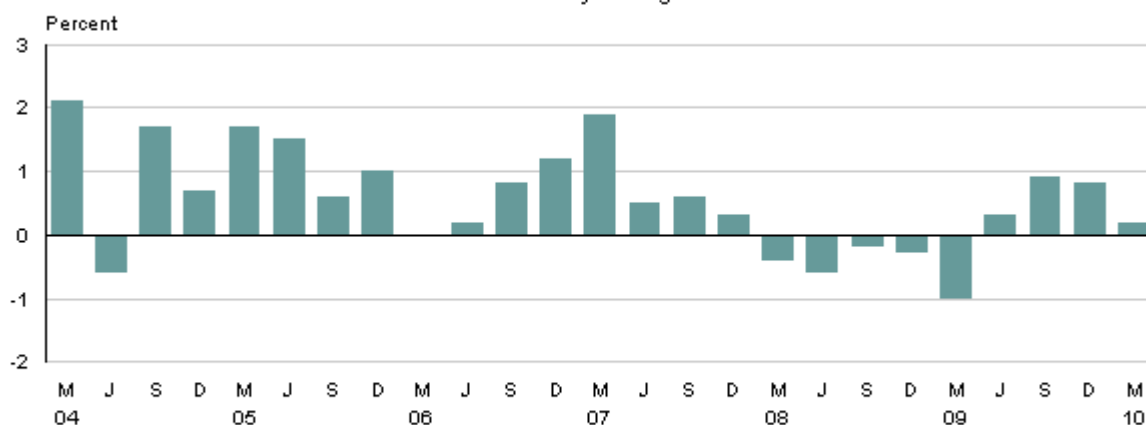
For the year ended March 2010, expenditure on GDP increased 0.5 percent, compared with a 1.0 percent decrease for the year ended March 2009.

## Household consumption

Household final consumption expenditure increased 0.2 percent in the March 2010 quarter. Household consumption expenditure measures the volume of spending by New Zealand-resident households on goods and services. The increase this quarter is the fourth consecutive quarterly increase for household consumption expenditure and follows a rise of 0.8 percent in the December 2009 quarter.

## Household consumption expenditure <sup>(1)</sup>

### Quarterly change



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

Source: Statistics New Zealand

Household expenditure on durable goods increased 2.0 percent in the March 2010 quarter. This increase was driven by higher sales of retail furniture and major appliances, as well as used vehicles, and clothing and footwear. This is the third consecutive quarter where spending on durables has increased, with retail furniture and major appliances being a significant driver in each of these quarters. Expenditure on used vehicles has increased for the past four quarters, and is reflected in increased imports of passenger motor cars over the previous three quarters.

Decreased household expenditure on both non-durable goods (down 0.7 percent) and services (down 0.1 percent) partly offset the rise in durable goods this quarter. Decreased spending on retail food and petroleum products were the major contributors for the decline in non-durable goods.

The fall in services expenditure was driven by decreased spending on life insurance, fixed line and mobile telephone calls, and public education. The decline in household expenditure on services this quarter followed a drop of 0.6 percent in the December 2009 quarter, and is the first time that services expenditure has fallen in two consecutive quarters since the June 1991 quarter.

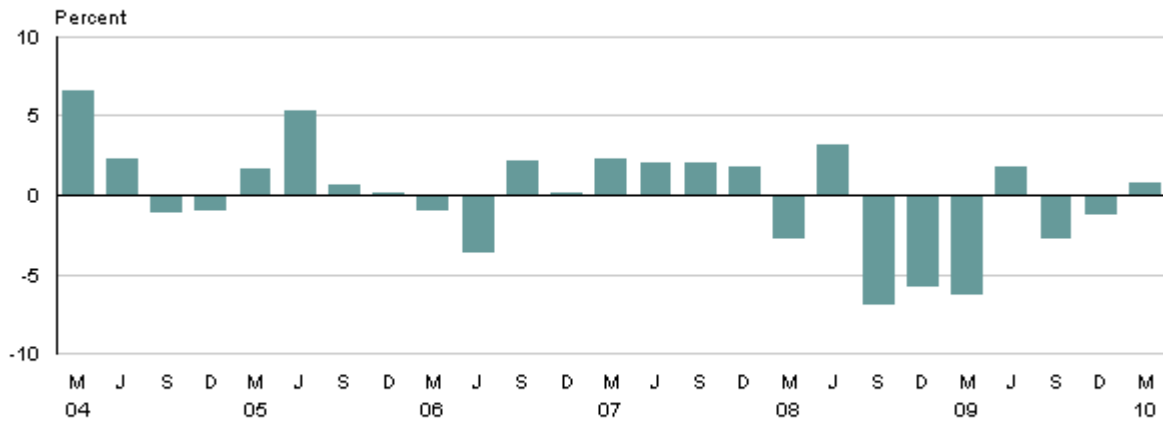
For the year ended March 2010, household consumption expenditure increased 0.5 percent, the first rise since a 0.8 percent increase in the year ended September 2008. The latest rise was a result of increased spending on non-durable goods (up 0.4 percent) and services (up 0.7 percent). A decline in household expenditure on durable goods (down 1.0 percent) partly offset these increases.

## Gross fixed capital formation

Gross fixed capital formation (GFKF) measures investment in fixed assets by households, business, and government.

## Gross fixed capital formation <sup>(1)</sup>

Quarterly change



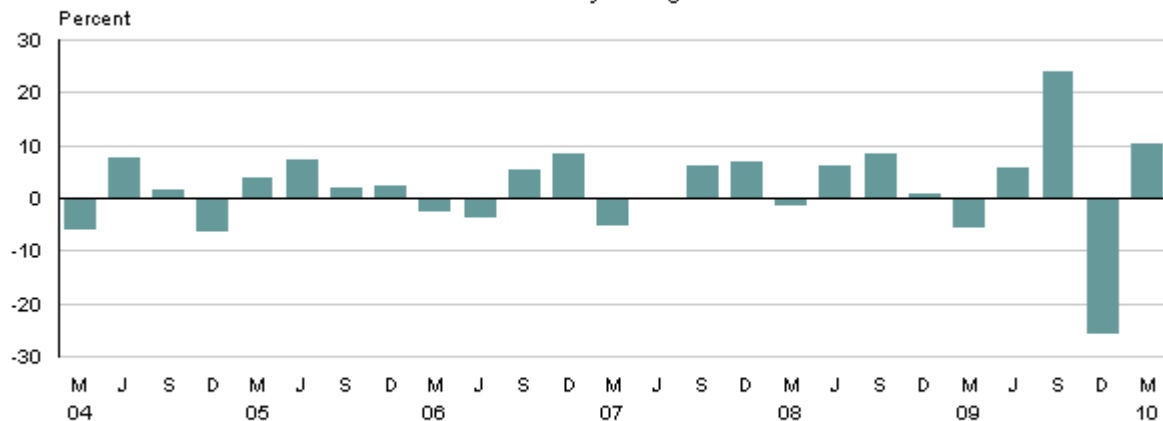
1. Seasonally adjusted chain-volume series expressed in 1995/96 prices.

Source: Statistics New Zealand

GFCF increased 0.8 percent in the March 2010 quarter. This rise was mostly due to increased investment in intangibles (up 10.3 percent), driven mainly by increased exploration activity. This increase is also reflected in the increased exploration activity on the production side, where mining rose 4.5 percent. A 2.5 percent rise in other construction, which mainly consists of infrastructure construction such as roads and bridges, also contributed this quarter.

## Gross fixed capital formation – intangibles <sup>(1)</sup>

Quarterly change



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

Source: Statistics New Zealand

Investment in non-residential building (down 3.5 percent) and transport equipment (down 3.1 percent) partly offset the rise this quarter.

Investment in residential building increased 0.5 percent in the March 2010 quarter, following a 4.7 percent increase in the December 2009 quarter.

For the year ended March 2010, GFKF was down 9.5 percent. The main contributors to the decline were plant, machinery and equipment (down 16.1 percent), and transport equipment (down 23.8 percent).

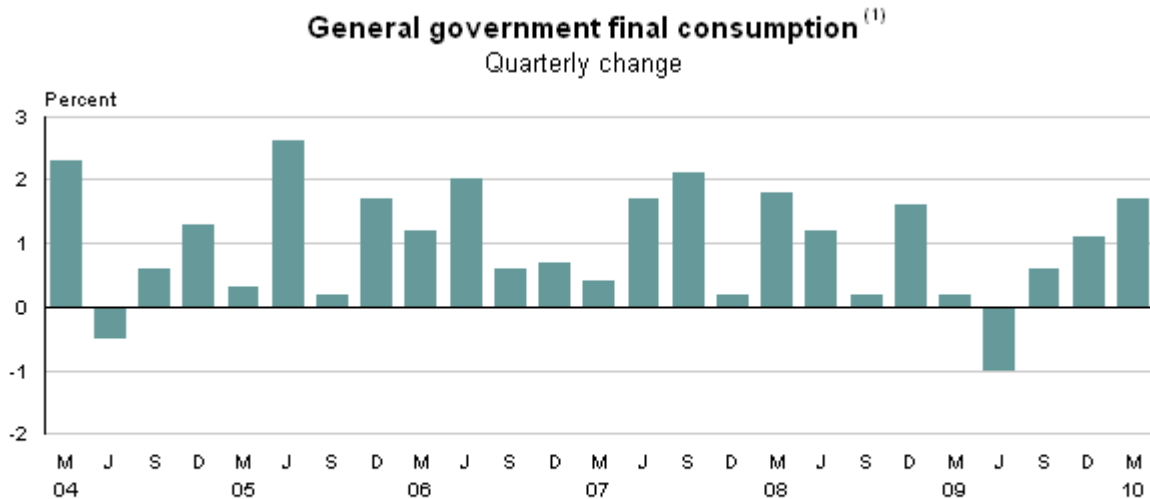
Business investment in fixed assets increased 0.9 percent in the March 2010 quarter, following two consecutive quarters of decline. Business investment consists of GFKF less residential buildings. This quarter's increase was driven by the rise in intangible investment and investment in other construction. For the year ended March 2010, business investment in fixed assets decreased 8.9 percent.

### Inventories

Total inventories were built up by \$143 million in the March 2010 quarter, following a build-up of \$221 million in the December 2009 quarter. The build up this quarter was largely due to an increase of \$95 million for distribution inventories. A \$53 million run-down for agriculture inventories partly offset the increases.

### Government

General government final consumption expenditure increased 1.7 percent in the March 2010 quarter, the largest increase since the March 2008 quarter.



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

Source: Statistics New Zealand

Central government expenditure increased 1.9 percent in the March 2010 quarter, driven by the acquisition of the \$93 million offshore patrol vessel *HMNZS Otago*. With the offshore patrol vessel excluded, central government expenditure increased 0.8 percent, driven by increases in central government administration and education. Local government final consumption expenditure declined 0.5 percent in the March 2010 quarter.

Education and health are included in government consumption on the expenditure side, while they are separate industries on the production side of GDP.

For the year ended March 2010, general government consumption expenditure was up 1.4 percent.

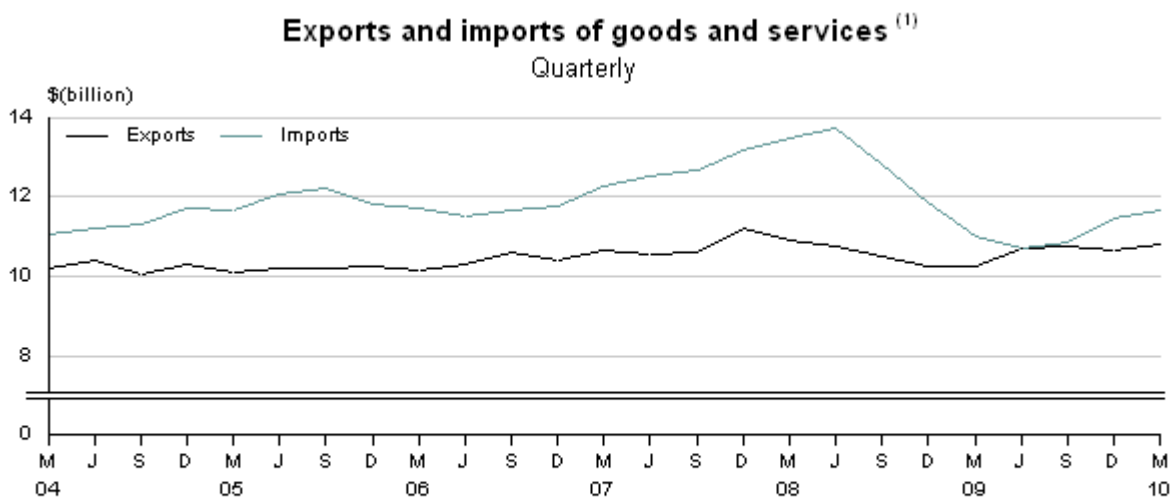
## Exports and imports

Export volumes of goods and services increased 1.4 percent in the March 2010 quarter, following a 0.7 percent decrease in the previous quarter.

The volume of goods exported increased 3.4 percent in the March 2010 quarter. A 5.7 percent increase in export volumes of metal products, machinery, and equipment was the largest contributor. Increased exports reflected higher manufacturing activity for both metal products (up 7.2 percent) and machinery and equipment (up 7.7 percent) in the March 2010 quarter.

Exports of agriculture and fishing primary products (up 6.9 percent) also contributed to the increase in goods exported this quarter. Exports of forestry primary products also rose this quarter (up 2.2 percent) due to strong international demand for logs during the year. This increase was reflected in the growth in production activity for forestry and logging, as shown in the production measure of GDP. Partly offsetting these increases was a decline in export volumes for other food, beverages, and tobacco (down 2.9 percent).

Exports of services declined 2.4 percent in the March 2010 quarter. Exports of travel services, which measures the volume of spending by overseas visitors to New Zealand, was down 4.3 percent.



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

Source: Statistics New Zealand

Import volumes of goods and services were up 1.8 percent in the March 2010 quarter, following a 5.8 percent increase in the December 2009 quarter.

The volume of goods imported rose 1.9 percent. The main contributor to the increase in imports of goods was a 4.2 percent increase in consumption goods. The acquisition of the \$93 million offshore patrol vessel *HMNZS Otago* also contributed to the increase in import volumes, with military and other goods up \$95 million. This is reflected in the increase in central government final consumption expenditure, which is where the spending on the offshore patrol vessel is recorded.

Partly offsetting these increases was a 12.4 percent fall in imports of passenger motor cars. This fall follows strong increases in import volumes of passenger motor cars over the previous three quarters. Household expenditure on both new and used cars increased in the March 2010 quarter, reflecting stronger demand. Fewer imports of passenger motor cars were required this

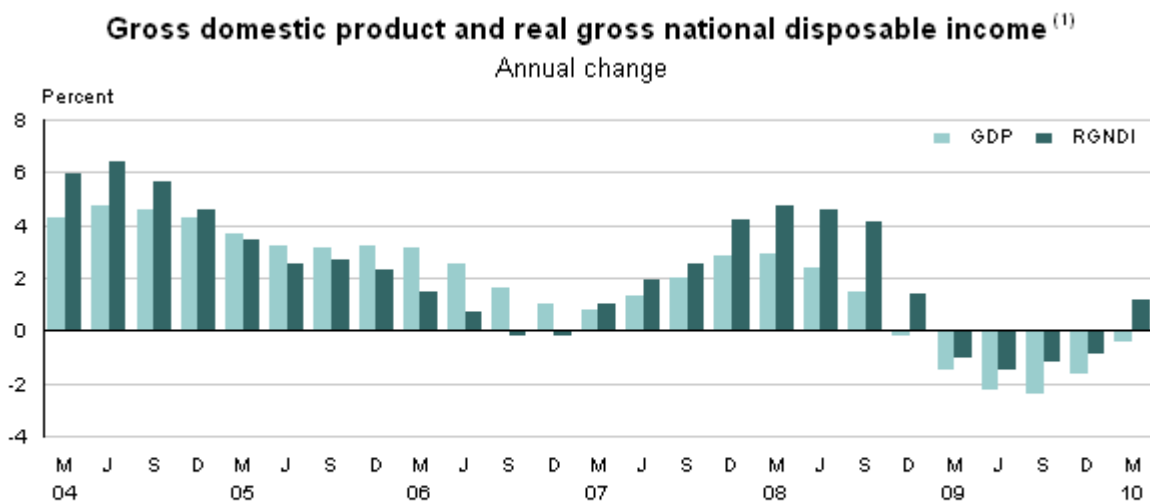
quarter to meet the demand as distribution inventories have been built up over the past two quarters. Imports of capital goods also fell, down 2.8 percent, mainly due to a decline in transport and industrial equipment imports. Investment in transport equipment also declined this quarter, as reflected in gross fixed capital formation.

In the March 2010 quarter imports of services were up 0.6 percent, mainly due to a rise in transport services.

For the year ended March 2010, export volumes increased 2.9 percent while import volumes were down 9.6 percent.

## Real gross national disposable income

Real gross national disposable income (RGNDI) increased 1.2 percent in the year ended March 2010, while GDP contracted 0.4 percent over the same period. GDP is a measure of economic activity, while RGNDI is a measure of the volumes of goods and services that New Zealand residents have command over. RGNDI 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.



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

Source: Statistics New Zealand

## Implicit price deflators

The GDP implicit price deflator (IPD) for the year ended March 2010 increased 1.3 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 was up 2.3 percent for the year ended March 2010. 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

### Production measure

- Non-residential building estimates for the December 2009 quarter have been revised due to updated respondent data for building work. This revision is to both the construction industry on the production measure of GDP, and to investment in non-residential building on the expenditure measure of GDP. The revision was not included in the Quarterly Building Activity Survey results.
- Revisions to the non-building measure of construction, which includes road and bridge construction, have occurred due to updated use of source data. These revisions affect the quarters June 1993 to December 2009.
- The agriculture industry has been revised due to the incorporation of updated March year benchmarks, and updated source data. The largest impact of these revisions is in the December 2009 quarter.

### Expenditure measure

- Revisions have been made to gross fixed capital formation and manufacturing. In the June 2009 quarter, four inshore patrol vessels (IPVs) built in New Zealand were delivered to the New Zealand Navy. The purchase of these vessels is now included in government gross fixed capital formation in the June 2009 quarter, while an offsetting revision was also made to reduce manufacturing inventories in the same quarter. The manufacturing activity associated with the construction of these vessels was included in GDP, but further revisions have been made to manufacturing inventories to better reflect the build-up of work in progress inventories while these ships were being built. These revisions bring the accounts into line with the SNA93 treatment of these transactions.
- Manufacturing inventories have also been revised due to updated information from the Economic Survey of Manufacturing.

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### Next release ...

*Gross Domestic Product: June 2010 quarter* will be released on 23 September 2010.

## Technical notes

### Gross Domestic Product March 2010 quarter

Statistics in the 'Tables' section provide the first available information on gross domestic product (GDP) for the March 2010 quarter.

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

### Production-based measure the preferred series

Conceptually, both the production-based 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.

### *Quarterly Gross Domestic Product: Sources and Methods (Second edition)*

[Quarterly Gross Domestic Product: Sources and Methods \(Second edition\)](#), published on 20 June 2008, provides an update of the sources and methods used for all quarterly GDP series Statistics NZ produces, 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 changes include the implementation of the new international standard, System of National Accounts 1993; the rebasing of the constant price series from 1991/92 to 1995/96 prices; the introduction of chain-linking; and the adoption of a new industry classification, the Australian and New Zealand Standard Industrial Classification 1996 (ANZSIC96).

A free electronic version is available on Statistics NZ's website ([www.stats.govt.nz](http://www.stats.govt.nz)) or contact the information centre (call toll-free 0508 525 525 or email [info@stats.govt.nz](mailto:info@stats.govt.nz)) for hard copies.

### Implementation of Australian and New Zealand Standard Industrial Classification 2006 (ANZSIC06)

The production measure of GDP is presented by industry. The industry classification that Statistics NZ uses is ANZSIC, and the version that is used for GDP is ANZSIC96. Statistics NZ is currently in the process of converting to the newer standard, ANZSIC06. For more information about the implementation of ANZSIC06, refer to [Introduction to ANZSIC 2006](#) on the Statistics NZ website ([www.stats.govt.nz](http://www.stats.govt.nz)).

### Use of Quarterly Employment Survey data

Hours worked data from the Quarterly Employment Survey (QES) is used as the primary indicator of economic activity for the following industries:

- cultural and recreational services
- personal and other services
- health and community services

- business services
- water supply

The QES now uses the ANZSIC06 industry classification, while GDP is still calculated using ANZSIC96. For the industries in GDP that use QES as an indicator, forward estimates of ANZSIC96, based on ANZSIC06 survey data, are being used.

## 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, and 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 the detailed information needed for annual weights is not available, or relative price changes are not considered significant.

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). For a full explanation, see the report [Chain Volume Measures in National Accounts](#), available on the Statistics NZ website ([www.stats.govt.nz](http://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.

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. Double deflation 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.

## 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 (GNE) 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 revisions resulting from chain-linking below).
- **Irregular:** for example, methodological changes. However, note that as far as possible, revisions of this nature are 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 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.

Reweightings are part of the annual revisions cycle and are 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 two-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 2007, and all subsequent quarters use these weights.

Current price data is available on a more timely basis for the components comprising 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 2009, 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 2006/07 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 (ANZSIC):

- 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).

As well as these industrial groupings, there is an 'unallocated' category, which includes the nominal industry and unallocated taxes on production and imports (import duties, GST and taxes on capital transactions).

## 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 12 months 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 (GNDI) 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 (GNI) 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 **gross domestic product** (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 real gross national disposable income**

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 projected 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. Before March 1991, the definition used was the 'de facto' population, which excludes New Zealand residents temporarily overseas and includes overseas tourists in New Zealand.

## **More information**

For more information, follow the [link](#) to the Statistics NZ website.

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## 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 analytical tables are no longer attached to this page. [Infoshare](#), available on the Statistics NZ website ([www.stats.govt.nz](http://www.stats.govt.nz)), provides free online access to all published series. The analytical tables are still available on request. Also available on request are text files that can be used in Infoshare to replicate the tables.