

Gross Domestic Product: June 2013 quarter

Embargoed until 10:45am – 19 September 2013

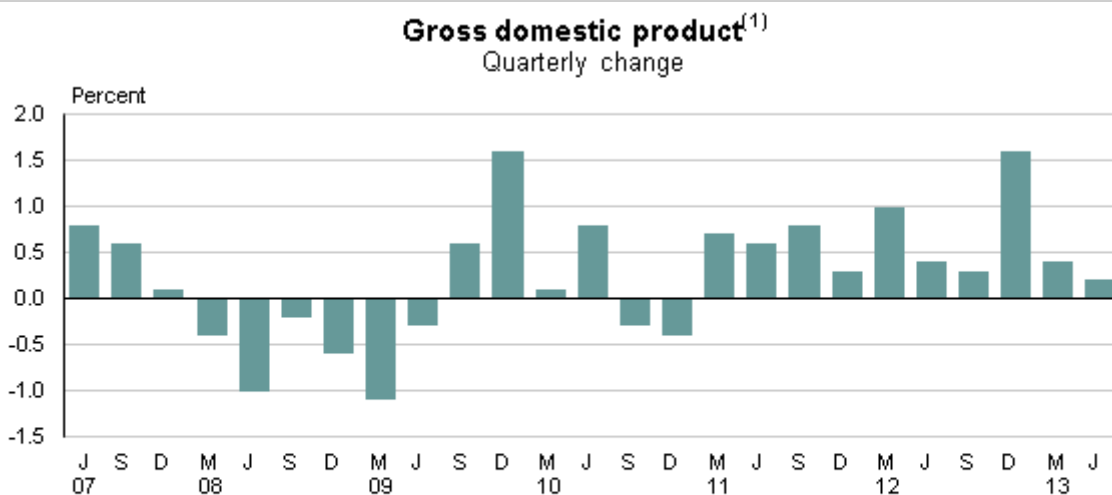
Key facts

Gross domestic product (GDP):

- Economic activity increased 0.2 percent in the June 2013 quarter.
- Business services (up 2.6 percent), construction (up 2.3 percent), and retail trade and accommodation (up 2.1 percent) were the main drivers of growth.
- Agriculture (down 6.4 percent) had the largest decline.
- Economic activity for the year ended June 2013 was up 2.7 percent.

Expenditure on gross domestic product:

- The expenditure measure of GDP was up 0.1 percent in the June 2013 quarter.
- Household consumption expenditure (up 1.5 percent) and gross fixed capital formation (up 3.8 percent) had the largest increases.
- Exports of goods and services decreased 5.9 percent, driven by a fall in export volumes of dairy products (down 16.8 percent).
- For the year ended June 2013, expenditure on GDP was up 2.7 percent.



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

Source: Statistics New Zealand

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Commentary

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- Imports of goods and services up
- Implicit price deflators
- Real gross national disposable income up 2.3 percent for the year
- Growth in non-tradable industries

New Zealand economy grows 0.2 percent

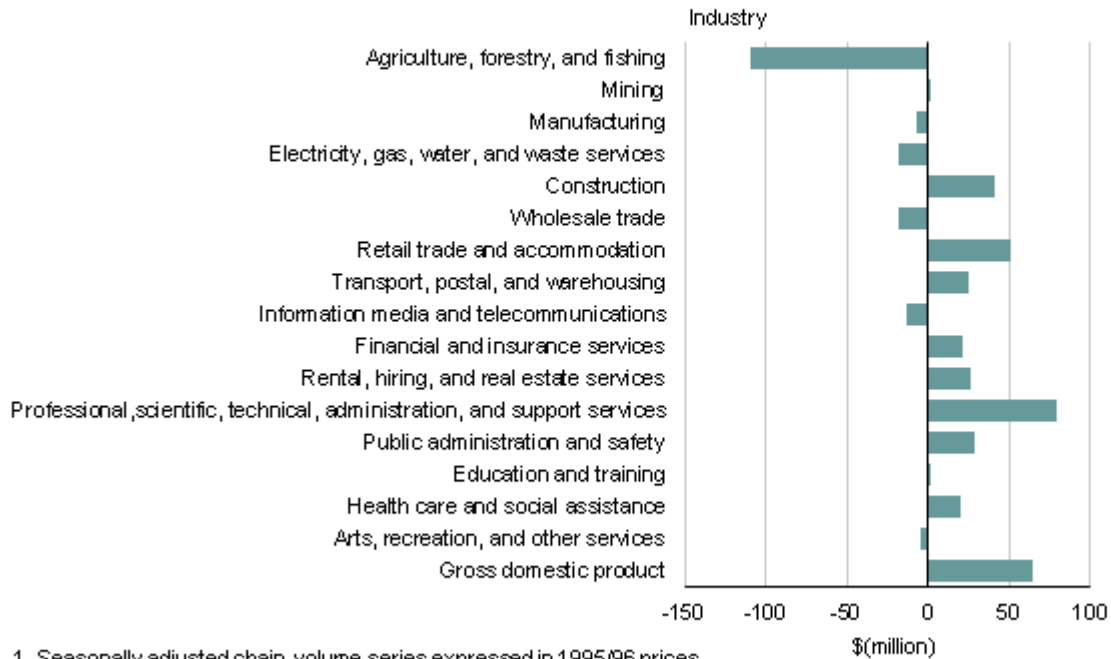
Gross domestic product (GDP) was up 0.2 percent in the June 2013 quarter, after a revised 0.4 percent rise in the March quarter.

The main movements by industry were:

- business services (up 2.6 percent), driven by increased architectural and engineering services
- construction (up 2.3 percent), due to increased activity in heavy and civil engineering (infrastructure) construction
- retail trade and accommodation (up 2.1 percent)
- agriculture, forestry, and fishing (down 4.8 percent), mainly driven by a fall in agriculture activity, which was led by lower dairy production due to the drought.

Gross domestic product by industry⁽¹⁾

Change from previous quarter
June 2013 quarter



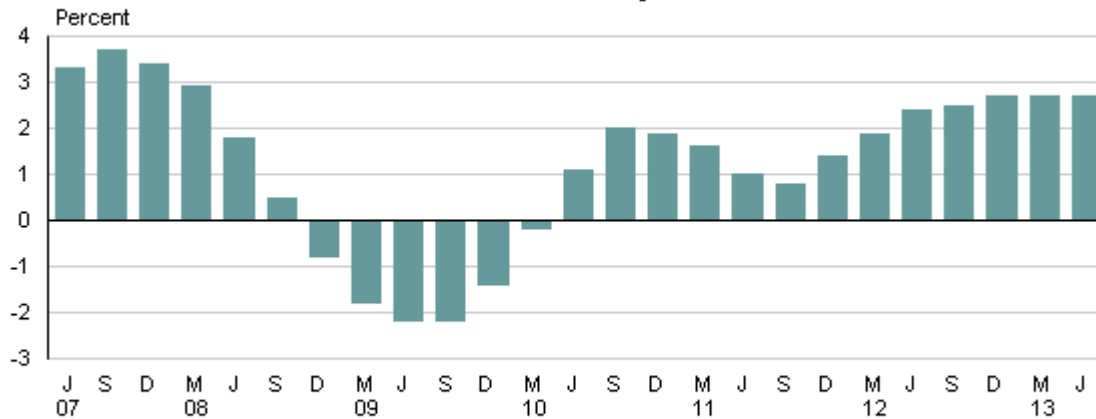
1. Seasonally adjusted chain-volume series expressed in 1995/96 prices.

Source: Statistics New Zealand

GDP for the year ended June 2013 was up 2.7 percent when compared with the June 2012 year.

Gross domestic product⁽¹⁾

Annual change



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

Source: Statistics New Zealand

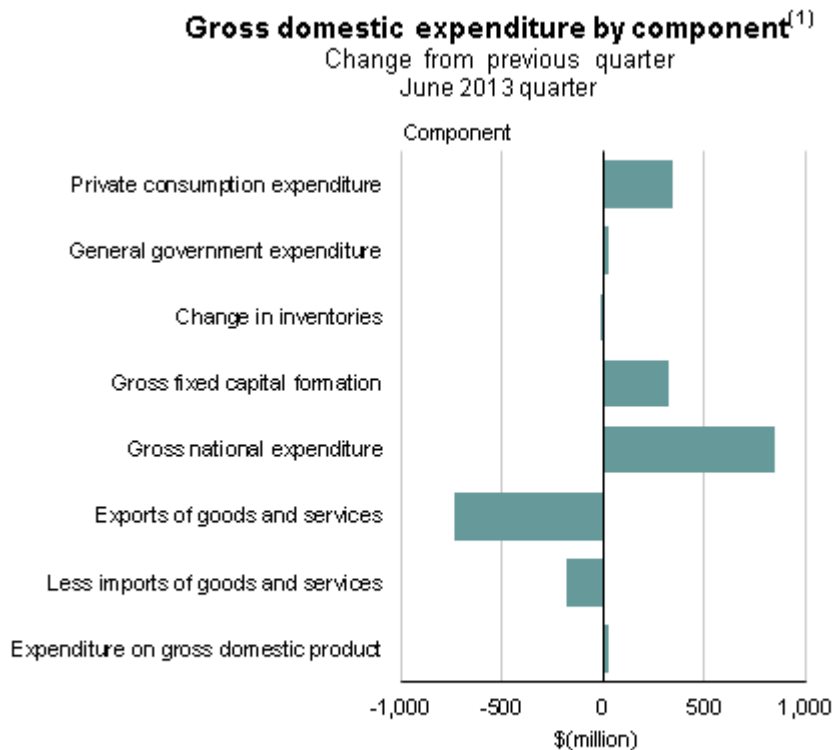
GDP for the June 2013 quarter was 2.5 percent higher than in the June 2012 quarter.

Expenditure on GDP – main movements

The expenditure measure of GDP (GDE) rose 0.1 percent in the June 2013 quarter, after a 0.3 percent rise in the March 2013 quarter. The expenditure and production measure 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 these goods and services were used.

The main movements in GDE in the June 2013 quarter are listed below.

- Household consumption expenditure (up 1.5 percent), due to increased spending on durable goods like audio-visual equipment, clothing, and furniture. This quarter's increase in household spending on durable goods is the largest since the March 2007 quarter.
- Gross fixed capital formation (up 3.8 percent), with investment in other construction (up 23.9 percent) the largest contributor. This is the largest increase in other construction investment since the March 1992 quarter.
- Inventories were built up \$248 million, with a build-up in manufacturing, agriculture, and forestry and logging stocks.
- Exports of goods and services (down 5.9 percent), mainly due to exports of dairy products, metal products, machinery and equipment, and meat products.
- Imports of goods and services (up 1.3 percent), after a 2.2 percent increase in the March 2013 quarter. The rise this quarter was led by higher imports of capital goods.



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

Source: Statistics New Zealand

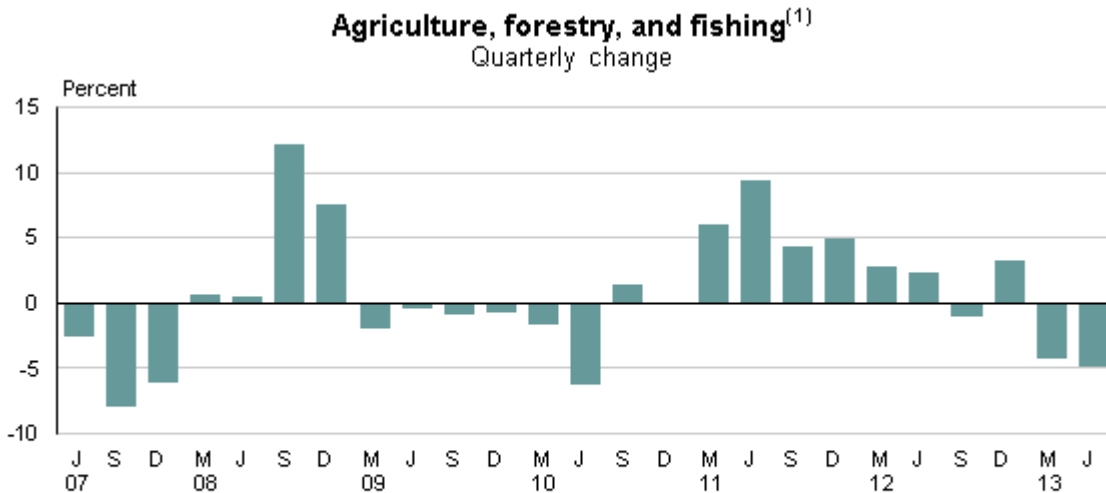
GDE for the June 2013 year rose 2.7 percent when compared with the June 2012 year.

Drought causes primary industries to fall

Primary industries fell 3.7 percent in the June 2013 quarter. Agriculture (down 6.4 percent) and forestry and logging (down 0.5 percent) were the main drivers.

Agriculture down 6.4 percent due to drought

Agriculture fell 6.4 percent in the June 2013 quarter. Dairy production was the biggest contributor to the fall, while sheep and cattle farming also fell.



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

Source: Statistics New Zealand

Dairy production was down this quarter due to the drought early this year. This was the fourth consecutive quarterly fall in dairy production. This period of decline follows strong increases between the December 2011 and June 2012 quarters, when conditions for grass growth were favourable. The fall in dairy farming in the June 2013 quarter was also reflected in falls in food, beverage, and tobacco product manufacturing (which includes dairy product manufacturing), and exports of dairy products.

The cumulative effect of the drought has been significant. Since the December 2012 quarter, the level of activity in the agriculture industry has fallen 10.4 percent.

In previous droughts, there have been attempts to maintain production by using more inputs. This time however, there does not appear to have been an increase in inputs, but a more dramatic fall in production.

The final impact of the drought will be shown when annual benchmarks for output and intermediate consumption are incorporated. These benchmarks are based on more detailed, but less timely data.

Because of the strong increase in slaughter numbers in the 2013 drought, especially for dairy cows, it may take longer to recover from than previous droughts. Farmers may take longer to restock their herds and build production back to pre-drought levels.

Forestry and logging down 0.5 percent

Forestry and logging was down 0.5 percent in the June 2013 quarter, the second consecutive decrease. Annual forestry and logging was still up 5.1 percent in the June 2013 year, and exports of forestry primary products are still strong.

Mining up 0.2 percent

Mining grew 0.2 percent in the June 2013 quarter. Oil and gas extraction, and coal mining drove this increase. Declines in exploration and mining services partly offset this quarter's rise.

Primary industries still up for the year

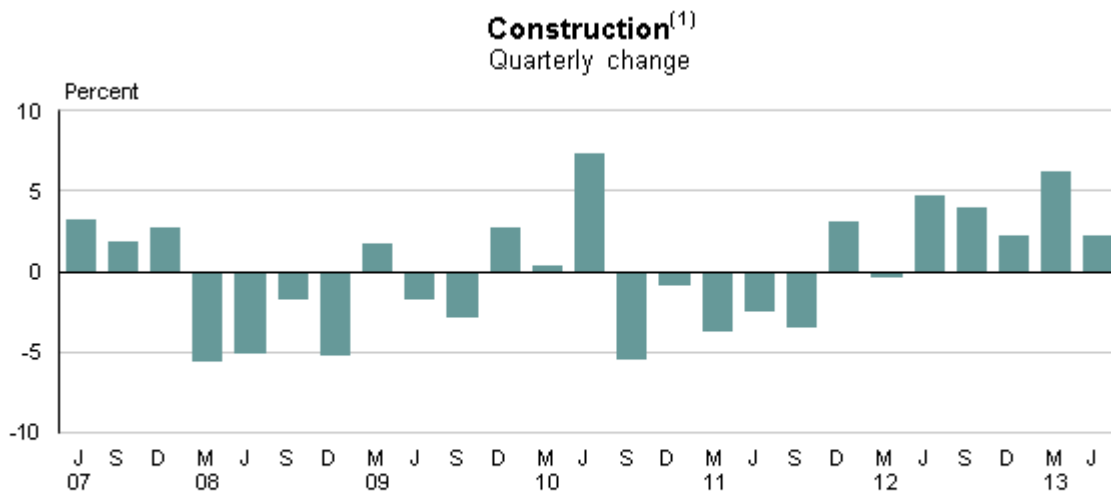
Primary industries grew 2.8 percent in the June 2013 year. Agricultural activity rose 2.6 percent in the same period, compared with a 28.8 percent increase in the June 2012 year.

Construction continues to lead goods-producing industries

Goods-producing industries were up 0.2 percent in the June 2013 quarter. Construction (up 2.3 percent) drove this increase. This rise was partly offset by declines in electricity, gas, water, and waste services (down 2.4 percent), and manufacturing (down 0.1 percent).

Other construction pushes construction up 2.3 percent

Construction grew 2.3 percent in the June 2013 quarter. The growth was driven by heavy and civil engineering construction, which includes roading and infrastructure. This increase was due to broad growth across a range of assets, and is consistent with increased investment in these types of assets as shown in gross fixed capital formation in the expenditure measure.



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

Source: Statistics New Zealand

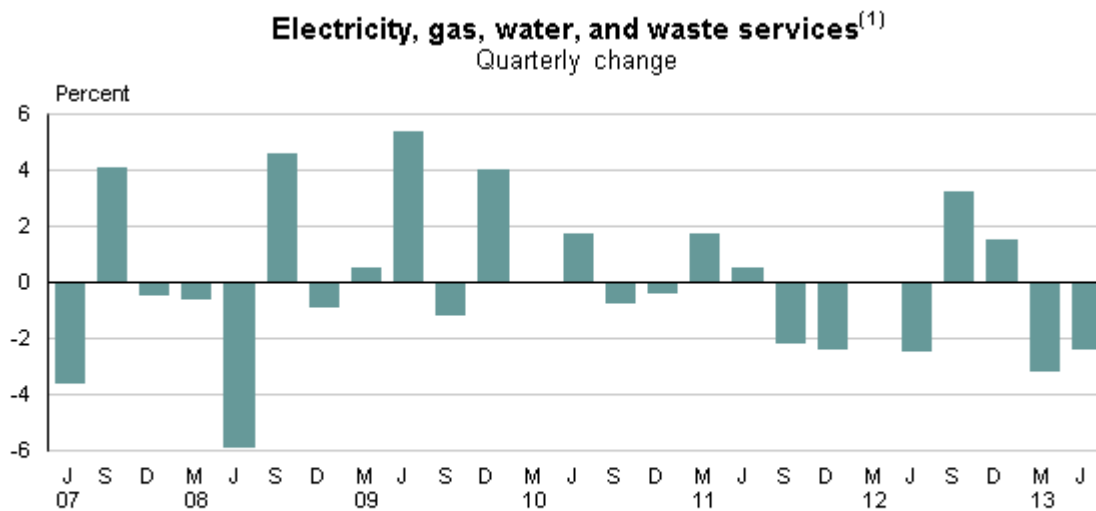
Non-residential building activity was also up, while residential building activity fell after four consecutive quarters of increase. Value of Building Work Put in Place: June 2013 quarter reported that building activity fell in Canterbury, especially for non-residential

building. Residential building and non-residential building activities had significant increases in the March 2013 quarter.

The latest increase in construction activity has resulted in the highest level of activity since the peak in the December 2007 quarter. Construction increased 14.0 percent in the June 2013 year, the largest annual increase since June 2003.

Lower demand leads to 2.4 percent fall in electricity, gas, water, and waste services

Electricity, gas, water, and waste services fell 2.4 percent in the June 2013 quarter. Electricity generation declined this quarter driven by falling demand for electricity, due to a warmer-than-normal autumn.

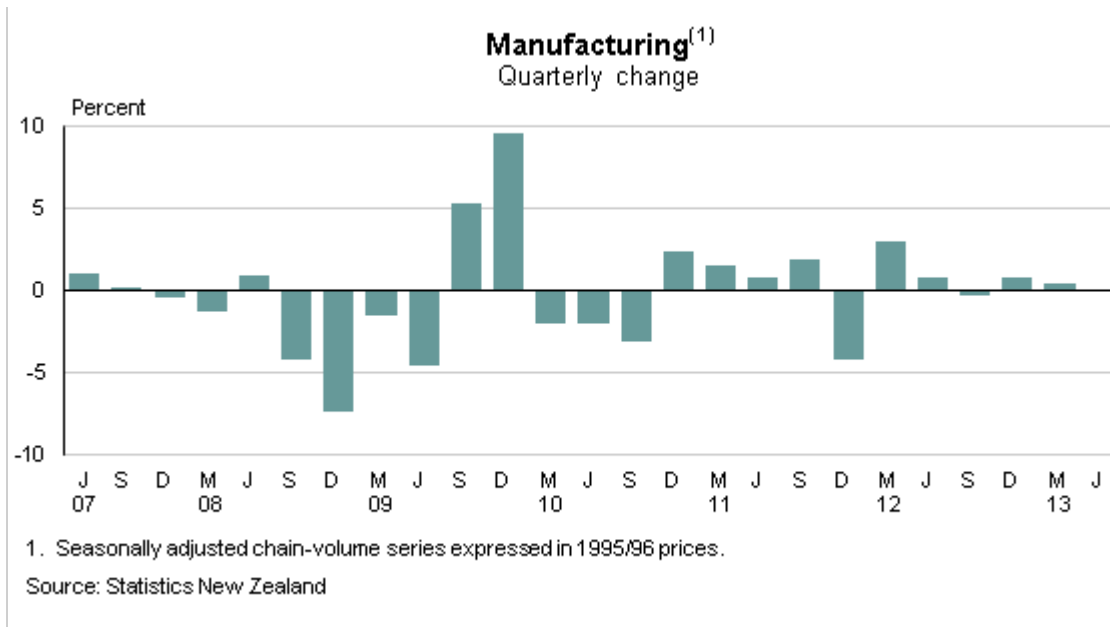


1. Seasonally adjusted chain-volume series expressed in 1995/96 prices.

Source: Statistics New Zealand

Drought causes manufacturing to fall 0.1 percent

Manufacturing fell 0.1 percent in the June 2013 quarter. This fall was driven by food, beverage, and tobacco manufacturing (down 3.8 percent). The drought affected agricultural output, leading to falls in both meat and dairy product manufacturing.



Textile, leather, clothing, and footwear manufacturing also fell, down 2.4 percent. These declines were partly offset by increases in petroleum, chemical, polymer, and rubber product manufacturing (up 3.2 percent) and transport equipment, machinery, and equipment manufacturing (up 2.9 percent).

Goods-producing industries up for the year

Goods-producing industries grew 4.3 percent in the June 2013 year, the largest annual increase since September 2010. Construction was the largest contributor (up 14.0 percent), while manufacturing was up 1.4 percent.

Service industries lead growth

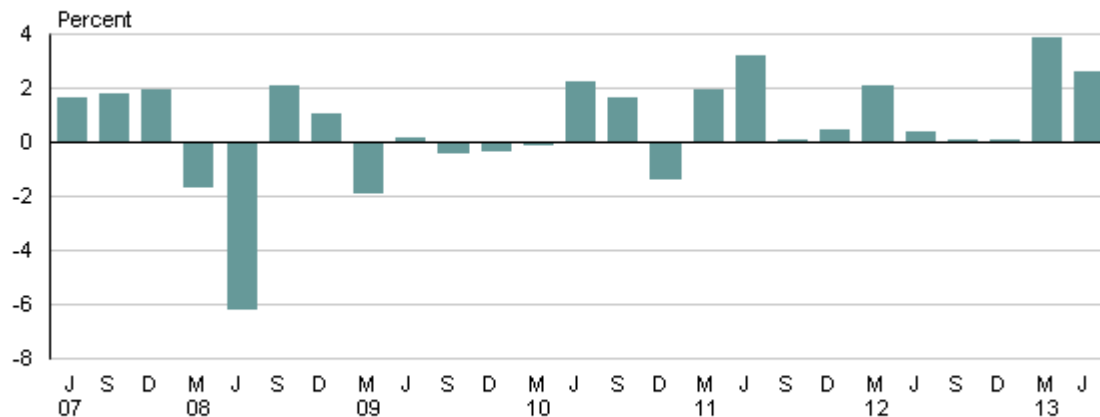
The service industries were up 1.0 percent in the June 2013 quarter, with growth spread across most services. A strong increase in professional, scientific, technical, administrative, and support services (up 2.6 percent) led the rise. Retail trade and accommodation also contributed to the rise, up 2.1 percent. These increases were partly offset by falls in wholesale trade (down 0.9 percent) and information media and telecommunications (down 0.6 percent).

Business services up 2.6 percent

Professional, scientific, technical, administrative, and support services (business services) grew 2.6 percent in the June 2013 quarter. This followed a strong increase in the March 2013 quarter. The latest growth was again driven by architectural and engineering services, which were not region-specific this quarter.

Professional, scientific, technical, administration, and support services⁽¹⁾

Quarterly change



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

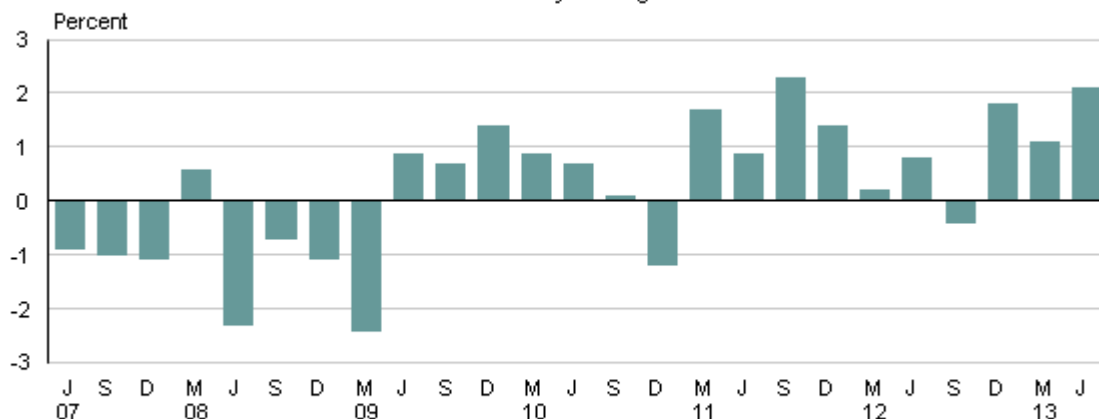
Source: Statistics New Zealand

Retail trade up 1.5 percent

Activity in retail trade and accommodation increased 2.1 percent in the June 2013 quarter. This was driven by increases in retail trade (up 1.5 percent) and accommodation and food services (up 3.4 percent). Retail trade's increase was mainly due to an increase in furniture and electrical retailing, such as televisions. Clothing retailing also grew in the June 2013 quarter after a decline in the March 2013 quarter. The fall in the previous quarter was due to a warmer-than-usual start to autumn so people delayed the purchase of winter clothing. [International Travel and Migration](#) reported strong short term visitor arrivals this quarter, which contributed to the growth in accommodation and food services.

Retail trade and accommodation⁽¹⁾

Quarterly change



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

Source: Statistics New Zealand

The increase in retail sales was reflected in a fall in distribution inventories. With imports of consumption goods falling, the increased sales were of existing stock rather than new imports.

Services up for the year

Service industries grew 2.0 percent in the June 2013 year. This rise was largely due to increases in professional, scientific, technical, administrative, and support services (up 4.3 percent) and retail trade and accommodation (up 3.1 percent). These rises were partly offset by falls in information media and telecommunications (down 1.4 percent) and transport, postal, and warehousing (down 0.2 percent).

Expenditure on GDP up 0.1 percent

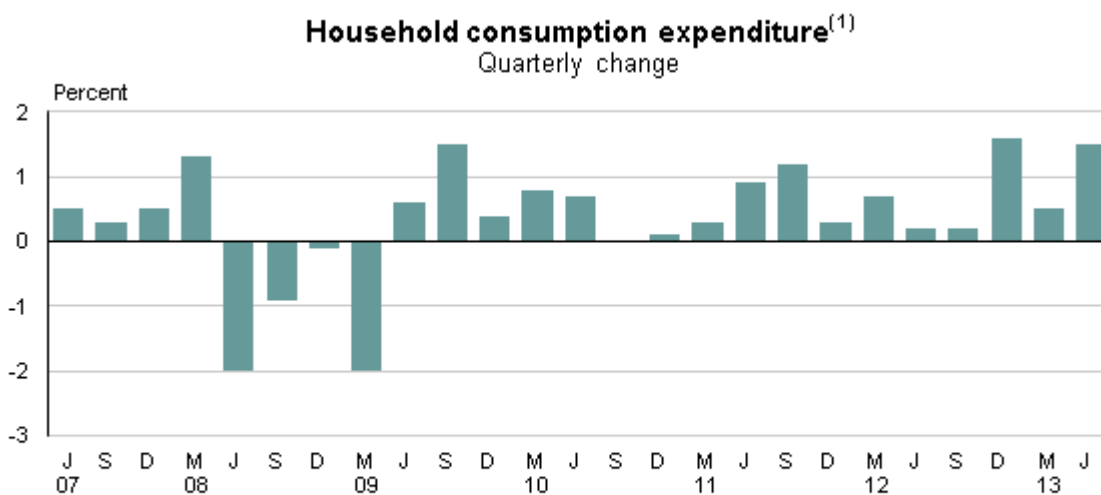
GDE increased 0.1 percent in the June 2013 quarter, following a 0.3 percent increase in the March 2013 quarter.

GDE rose 2.7 percent in the June 2013 year compared with the June 2012 year.

While the production-based and the expenditure-based measures are both official series, the production-based measure historically shows less volatility and is the preferred series for the quarter-on-quarter changes. The expenditure-based measure uses a different range of data sources and is more susceptible to timing and valuation changes in the short-term.

Durable goods lead household spending

Household final consumption expenditure (HCE) increased 1.5 percent in the June 2013 quarter, following a 0.5 percent increase in the March 2013 quarter. Within HCE, spending on durable goods and services were both up, while spending on non-durable goods was flat. Household consumption expenditure measures the volume of spending on goods and services by New Zealand-resident households.



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

Source: Statistics New Zealand

The volume of household expenditure on durable goods increased 4.0 percent in the June 2013 quarter, the strongest increase since the March 2007 quarter. The latest rise was due to increased spending on audio-visual equipment, clothing, and furniture. This is reflected in retail trade activity in the production measure of GDP. Household spending on motor vehicles was up in the June 2013 quarter, reflecting an increase in imports of passenger vehicles.

Household consumption of services increased 1.4 percent in the June 2013 quarter, following a 0.4 percent rise in the March 2013 quarter. Spending on domestic and international air passenger services was up, and is consistent with transport in the production measure of GDP. Household consumption of restaurant meals and gambling also recorded an increase this quarter. In the production measure of GDP, accommodation and food services trading also showed an increase.

The volume of non-durable goods purchased by New Zealand households was flat in the June 2013 quarter. While food consumption increased, there were decreases in petrol, electricity, and pharmaceuticals.

Household expenditure up 2.6 percent for the year

For the June 2013 year, HCE increased 2.6 percent compared with the June 2012 year. The latest rise was due to increased spending on durables (up 5.4 percent), services (up 2.8 percent), and non-durables (up 0.6 percent).

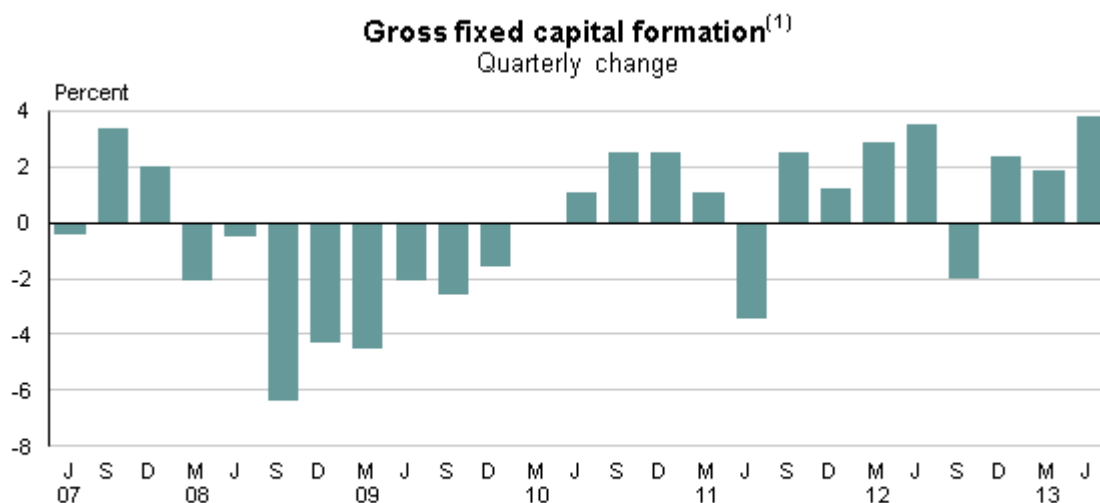
Government final consumption expenditure rises

General government final consumption expenditure increased 0.5 percent in the June 2013 quarter, following a 0.3 percent fall in the March 2013 quarter. Central government was up 0.6 percent and local government was down 0.3 percent.

For the June 2013 year, general government final consumption expenditure increased 0.1 percent.

Other construction drives investment up

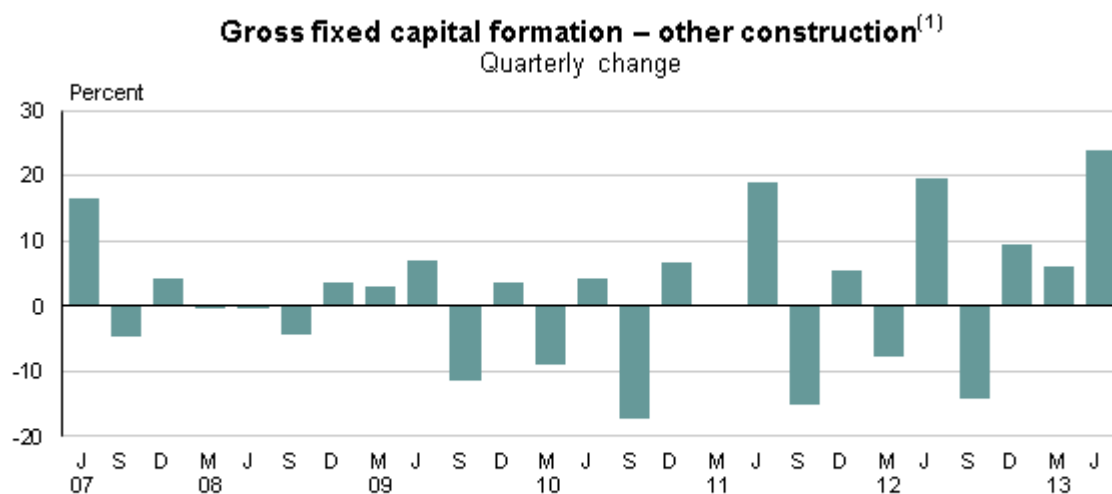
Gross fixed capital formation (GFKF) increased 3.8 percent in the June 2013 quarter. GFKF consists of business investment fixed assets plus residential building investment. For the June 2013 year, GFKF increased 6.1 percent.



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

Source: Statistics New Zealand

Business investment in fixed assets, which is total GFKF excluding residential building, increased 5.7 percent in the June 2013 quarter, following an increase of 0.3 percent in the March 2013 quarter. The main driver of this quarter's increase was investment in other construction (up 23.9 percent). This is the largest percentage movement in investment in other construction since the March 1992 quarter. Other construction investment is now the highest since the series began.



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

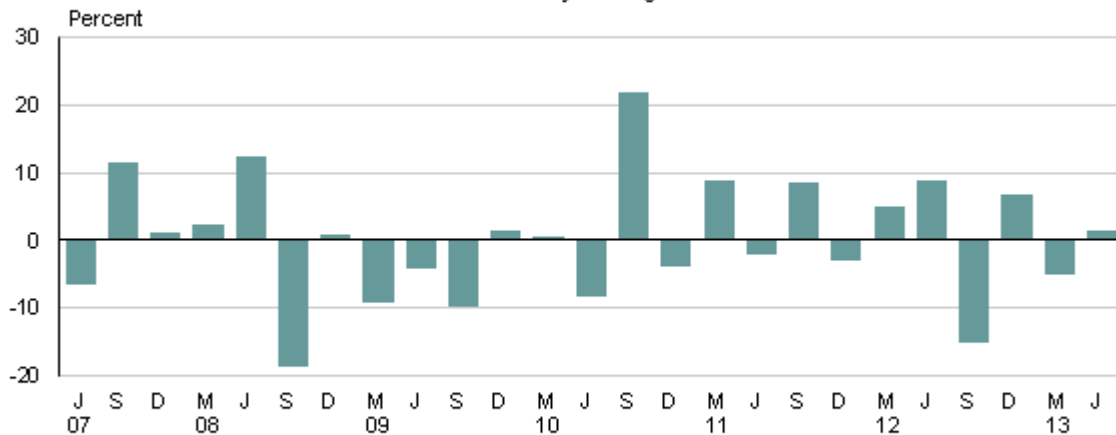
Source: Statistics New Zealand

The increase in other construction is consistent with an increase in civil and heavy construction activity in the production measure of GDP. Civil and heavy construction includes infrastructure such as roads and power plants. Growth in other construction was broad across a range of assets. For the June 2013 year, investment in other construction increased 11.8 percent – the highest since the June 2008 year.

In the June 2013 quarter, transport equipment investment increased 13.2 percent. Road and rail transport investment were the main drivers for the increase. This is the largest increase in investment in transport equipment since the December 2011 quarter. The increase in transport equipment investment is consistent with an increase in imports of transport equipment.

Investment in plant, machinery, and equipment was up 1.5 percent, following a 5.0 percent decrease in the March 2013 quarter. Investment in plant, machinery, and equipment consists of the domestic production, net imports, and net change in inventories of these types of goods. Imports of machinery and plant were down in the June 2013 quarter.

Gross fixed capital formation – plant, machinery, and equipment⁽¹⁾
Quarterly change



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

Source: Statistics New Zealand

Other contributors to this quarter's increase in investment were:

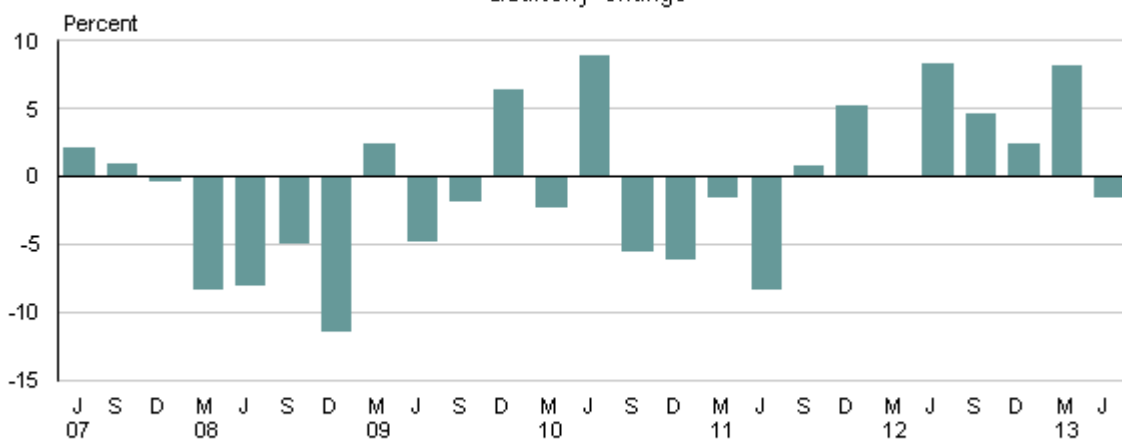
- intangibles (up 4.1 percent, driven by software investment)
- non-residential building (up 1.0 percent).

For the year ended June 2013, business investment increased 3.1 percent.

Residential building investment falls

Investment in residential building fell 1.6 percent in the June 2013 quarter, following a strong increase of 8.2 percent in the March 2013 quarter. This is the first decline in residential building investment since the June 2011 quarter. [Value of Building Work Put in Place: June 2013 quarter](#) reported a 1.8 percent decrease in residential building activity. The latest decrease is reflected in slowing residential building construction activity, as measured in the production measure of GDP.

Gross fixed capital formation – residential building⁽¹⁾
Quarterly change



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

Source: Statistics New Zealand

For the June 2013 year, residential building investment increased 18.5 percent.

Build-up in inventories

In the June 2013 quarter, the supply of goods exceeded demand leading to a \$248 million build-up in inventories. This follows a build-up of \$255 million in the March 2013 quarter. The rise this quarter was driven by increases in manufacturing, agriculture, and forestry and logging. Partly offsetting this increase was a rundown in distribution inventories.

Falling dairy and meat export volumes

Export volumes of goods and services decreased 5.9 percent in the June 2013 quarter, following a 2.5 percent increase in the March 2013 quarter.

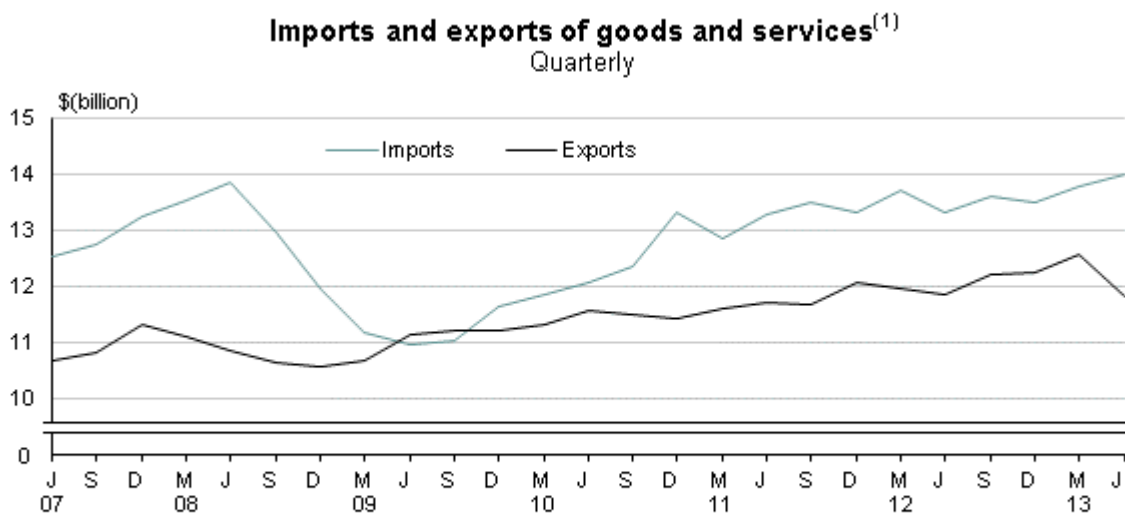
The volume of goods exported fell 8.5 percent in the June 2013 quarter, after a 2.5 percent increase in the March 2013 quarter. The main drivers of the decrease this quarter were:

- dairy products (down 16.8 percent)
- metal products, machinery, and equipment (down 9.8 percent)
- meat products (down 6.9 percent).

The decreases in dairy and meat exports are reflected in agriculture and manufacturing activity, as measured in the production measure of GDP.

Partly offsetting these decreases was exports of forestry primary products, which increased 11.4 percent in the June 2013 quarter. This is at its highest level since the series began.

Exports of services increased 3.5 percent in the June 2013 quarter, following the same percentage growth in the March 2013 quarter. Exports of travel services was down 1.8 percent.



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

Source: Statistics New Zealand

Imports of goods and services up

Import volumes of goods and services increased 1.3 percent in the June 2013 quarter, following a 2.2 percent increase in the March 2013 quarter.

The volume of goods imported increased 1.1 percent, following a 2.7 percent increase in the March 2013 quarter. Capital goods (up 7.7 percent) was the main contributor to this quarter's rise. Within capital goods, transport equipment was the largest contributor.

Imports of services was up 2.4 percent in the June 2013 quarter, following an increase of 1.7 percent in the March 2013 quarter. Imports of travel services was up 0.8 percent.

Export and import volumes both up for the year

For the year ended June 2013, export volumes increased 2.7 percent. This was mainly driven by dairy products (up 12.8 percent), despite the fall in exports of dairy products this quarter.

Import volumes increased 1.9 percent, mainly due to an increase in imports of intermediate goods (up 2.8 percent).

Implicit price deflators

The GDP implicit price deflator (IPD) for the June 2013 year decreased 0.6 percent. GDP IPD is a broad measure of the overall price change for final goods and services produced in New Zealand.

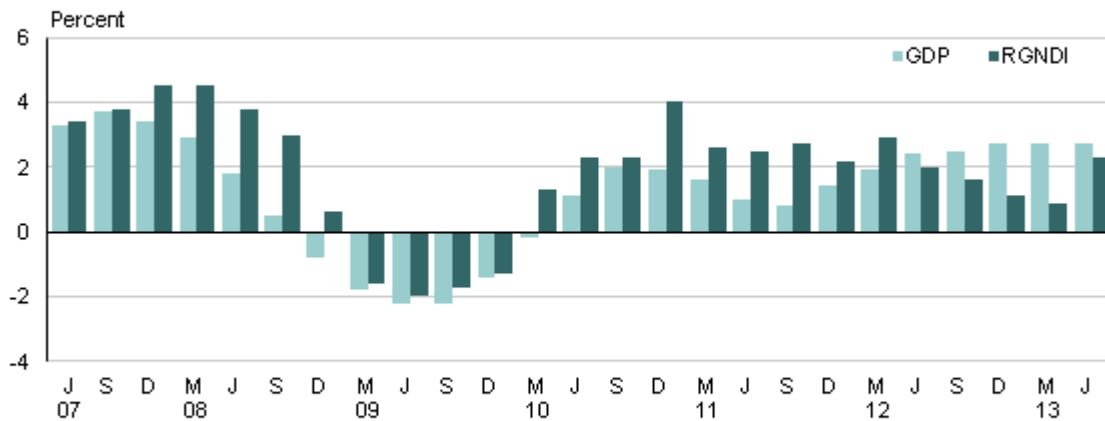
The IPD for gross national expenditure increased 0.2 percent for the June 2013 year. This provides a broad measure of the overall price change for final goods and services purchased in New Zealand.

The consumers price index (CPI) increased 0.7 percent for the year ended June 2013 (see [Consumers Price Index: June 2013 quarter](#)). The CPI measures the rate of price change of goods and services purchased by households.

Real gross national disposable income up 2.3 percent for the year

Real gross national disposable income (RGNDI) increased 2.3 percent for the June 2013 year. While GDP is a measure of domestic production or economic activity over a given time period, RGNDI can be viewed as a broad welfare indicator. For more information about RGNDI see the [definitions](#) section.

Gross domestic product and real gross national disposable income⁽¹⁾ Annual change



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

Source: Statistics New Zealand

The merchandise terms of trade index increased 4.9 percent in the June 2013 quarter, and fell 4.2 percent for the June 2013 year (see [Overseas Trade Indexes \(Prices\): June 2013 quarter \(provisional\)](#)). The decrease in the terms of trade for the year ended June 2013 resulted in RGNDI growth lower than GDP growth.

Growth in non-tradable industries

Classifying industries into tradable and non-tradable divides the economy into two. Those industries that compete internationally through exports or through competition with imports are considered to be tradable. Industries that face no significant international competition are considered as non-tradable industries. The time series presented in this release are from a paper presented at the New Zealand Association of Economists conference in July 2013 (see [The tradable sector and its relevance to New Zealand's GDP](#)). This is the first time these breakdowns have been published as part of this release, so we would like to get your feedback. Please email us at nationalaccounts@stats.govt.nz. See [Data quality](#) for more details.

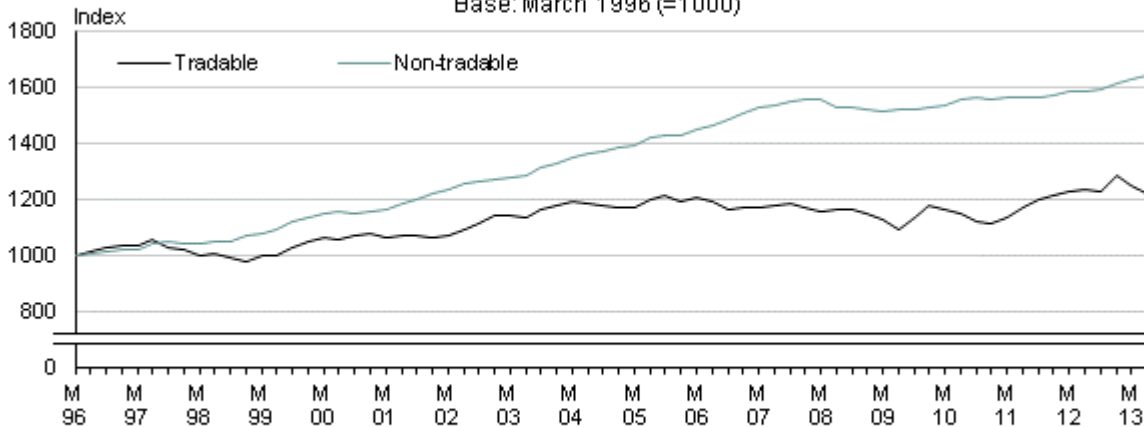
The direct methodology defines tradable industries as those industries that export a significant percentage of their output and those industries that face significant competition with imports.

Using the direct method, the tradable industries fell 2.3 percent in the June 2013 quarter. This reflects the 4.8 percent fall in agriculture, forestry and fishing. In the June 2013 year, tradable industries were up 2.0 percent.

Non-tradable industries increased 0.7 percent in the June 2013 quarter. In the June 2013 year, non-tradable industries were up 2.7 percent.

Tradable and non-tradable industries⁽¹⁾ – direct method

Quarterly indexes
Base: March 1996 (=1000)



1. Seasonally adjusted chain-volume index

Source: Statistics New Zealand

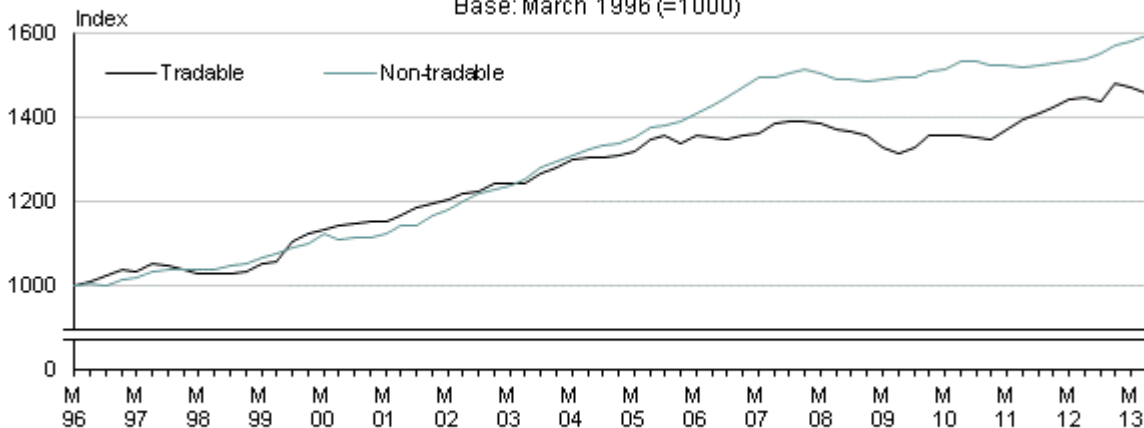
The indirect method uses a broader definition for tradable industries. It includes as tradable industries all those included in the direct method, but also includes those industries that supply a significant percentage of their output to tradable industries as defined by the direct method.

Using the indirect method, tradable industries were down 0.8 percent in the June 2013 quarter. In the June 2013 year, tradable industries were up 2.1 percent.

Non-tradable industries were up 0.9 percent in the June 2013 quarter. In the June 2013 year, non-tradable industries were up 3.0 percent.

Tradable and non-tradable industries⁽¹⁾ – indirect method

Quarterly indexes
Base: March 1996 (=1000)



1. Seasonally adjusted chain-volume index

Source: Statistics New Zealand

For more detailed data see the Excel tables in the 'Downloads' box.

Definitions

About gross domestic product

Gross domestic product (GDP) is New Zealand's official measure of economic growth.

Three different approaches can be taken to calculate GDP – the production approach, the expenditure approach, and the income approach. The production and expenditure approaches are used to calculate New Zealand's GDP on a quarterly basis. The production approach is available on a chain-volume basis, while the expenditure approach is on a chain-volume basis, and in current prices. Chain-volume estimates have the effect of price change (inflation) removed from them.

The **production approach** to GDP measures the total value of goods and services produced in New Zealand, after deducting the cost of goods and services used in the production process. This is also known as the value-added approach.

The **expenditure approach** to GDP (also known as GDE) measures the final purchases of goods and services produced in the New Zealand domestic territory. Exports are added to domestic consumption, as they represent goods and services produced in New Zealand, while imports are subtracted. Imports represent goods and services produced by other economies.

Conceptually, both the production-based and expenditure-based GDP series should produce the same growth rates, because what is produced by an economy should equal what is used. 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.

More definitions

Broad industry groups: in tables 3, 4, 5, 6, 25, and 26 industry groups are combined to form the following broad groupings, based on the Australian and New Zealand Standard Industrial Classification 2006 (ANZSIC06):

- primary industries (agriculture, forestry, and fishing; mining)
- goods-producing industries (manufacturing; electricity, gas, water, and waste services; construction)
- service industries (wholesale trade; retail, accommodation, and restaurants; transport, storage and warehousing; finance and insurance services; rental, hiring, and real estate services; professional, scientific, technical, administration, and support services; public administration and safety; education and training; health care and social assistance; arts, recreation and other services).

As well as these industrial groupings, there is an 'unallocated' category. This category includes taxes on production and imports (import duties, GST, and taxes on capital transactions) that are not allocated to industries.

Business investment: measures the investment of producers in land improvements; non-residential building; other construction; transport equipment; plant, machinery, and equipment; and intangibles (mining exploration and computer software).

Change in inventories: Change in the value of inventories of raw materials, work-in-progress, and finished goods, over a given period. The change is measured in the appropriate prices in the market at the time additions and withdrawals are made. The correct valuation of the change in inventories requires continually updated data on the quantities of individual commodities held in stock together with appropriate prices. As this data is rarely available, the usual practice is to revalue stocks at the end of the period. This is the best estimate of the physical change in stocks during a given period.

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. For more information on chain-volume series, see 'Constructing a chain-volume series' in the [data quality](#) section of this release.

Durable goods: are goods that are not consumed in one use (eg appliances and electronic goods).

Gross fixed capital formation: Outlays of producers on durable fixed assets, such as buildings, motor vehicles, plant and machinery, hydro-electric construction, roading, and improvements to land. 'Gross' indicates that consumption of fixed capital is not deducted from the value of the outlays.

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.

Household consumption expenditure (HCE): is an estimate of total expenditure by New Zealand resident households. It includes expenditure by New Zealand households overseas but does not include expenditure by overseas tourists in New Zealand.

Implicit price deflators: Tables 23 and 24 contain 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.

Non-durable goods: are goods that are either consumed immediately in one use or within 3 years.

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. For more information on calculating RGNDI, please refer to 'Calculating real gross national disposable income' in the [data quality](#) section of this release.

Services: products other than tangible goods. Services result from production activity that changes the conditions of the consuming units, or makes the exchange of products or financial assets possible.

Value added: income formed in the production process. Value added equals output minus intermediate consumption. Value added is the income available to reward the production factors involved.

Related links

Upcoming releases

Gross Domestic Product: September 2013 quarter will be released on 19 December 2013.

Revisions to New Zealand's macroeconomic accounts to December 2013 informs users of New Zealand's macroeconomic statistics about data changes planned to be included in the international and national accounts for 2013.

Subscribe to information releases, including this one, by completing the online subscription form.

The release calendar lists all our upcoming information releases by date of release.

Recent releases

The quarterly production measure of GDP has been reconciled to balanced annuals data from National Accounts (Industry Benchmarks): Year ended March 2010. For more information about the reconciliation process, see Revisions.

The quarterly expenditure measure of GDP has been reconciled to annual data from National Accounts (Income and Expenditure): Year ended March 2012.

Past releases

Gross Domestic Product – information releases has links to past releases.

Related information

National accounts provide an annual measure of economic aggregates in the New Zealand economy.

Data quality

Period-specific information

This section contains information that has changed since the last release.

- [Reference period](#)

General information

This section contains information that does not change between releases.

- [Data source](#)
- [Incorporating annual data](#)
- [Revisions to New Zealand's macroeconomic accounts to December 2013](#)
- [The System of National Accounts](#)
- [Australian and New Zealand Standard Industrial Classification 2006](#)
- [Constructing a chain-volume series](#)
- [Revisions resulting from chain-linking](#)
- [Calculating real gross national disposable income](#)
- [Calculating implicit price deflators](#)
- [Tradable sector](#)
- [Revisions policy](#)
- [Interpreting the data](#)
- [Confidentiality and accessing the data](#)
- [More information](#)

Period-specific information

Reference period

Information for this release was collected for the period April–June 2013.

General information

Data source

[Quarterly Gross Domestic Product: Sources and Methods \(Third edition\)](#) presents the sources and methods used in compiling quarterly GDP. Contact the Information Centre (toll-free at 0508 525 525 or email info@stats.govt.nz) for hard copies.

Incorporating annual data

[National Accounts \(Industry Benchmarks\): Year ended March 2010](#) was released on 21 November 2012. As annual data has a wider range of data sources, it is more complete. We reconciled the quarterly estimates of industries in GDP and the components of gross domestic expenditure (GDE) to annual estimates to ensure we show the most robust picture of economic activity.

We incorporated annual benchmarks for the production measure of GDP up to the year ended March 2010, and to the year ended March 2012 for GDE.

See [National Accounts \(Income and Expenditure\): Year ended March 2012](#) for more information.

Gross Domestic Product: September 2013 quarter will incorporate benchmarks for the production measure of GDP up to the year ended March 2011, and to the year ended March 2013 for GDE.

Revisions to New Zealand's macroeconomic accounts to December 2013

See [Revisions to New Zealand's macroeconomic accounts to December 2013](#) for details on data changes we plan to include in the international and national accounts for 2013.

The System of National Accounts

The conceptual framework we use to compile New Zealand's national accounts and GDP is based on the System of National Accounts 1993 (SNA93). The SNA93 is jointly published by the United Nations, The Commission of the European Communities, the International Monetary Fund, the Organisation for Economic Co-operation and Development, and the World Bank.

The latest SNA is for 2008 (SNA08). New Zealand will introduce SNA08 into the New Zealand accounts at the end of 2014.

Australian and New Zealand Standard Industrial Classification 2006

The production measure of GDP is presented by industry. The industry classification we use for GDP is the Australian and New Zealand Standard Industrial Classification 2006 (ANZSIC06).

See [ANZSIC 2006 – industry classification](#) for more information about implementing ANZSIC06.

[Gross Domestic Product: December 2011 quarter](#) was the last GDP release to use ANZSIC96.

Constructing a chain-volume series

We constructed the chain-volume measures of GDP and GDE by:

(a) compiling a Laspeyres volume index of the component in question, using the previous year's prices as weights; 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, postal, and warehousing, is also a chained-volume series. At the lowest level, the 'elemental series' are not chained and are either single series in their own right or fixed-weight series comprising many components. Chaining is not adopted, either because the details needed for annual weights are not available, or relative price changes are not significant.

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). See [Chain volume measures in national accounts](#) for a full explanation of the concepts and procedures used to compile chain-volume series.

Usually, 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 on an annual basis is currently used for these industries: agriculture; electricity and water transport; owner-occupied dwellings; healthcare and social assistance; education and training; professional, scientific, and technical services; administration and support services; arts and recreation services; and other services.

Revisions resulting from chain-linking

One of the key benefits of 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. 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. See 'Incorporating annual data' section above.

The current price annual accounts provide the detailed component series needed for weighting the production-based series of GDP. There is usually a two-year time lag before these detailed series are available. The latest year for which up-to-date weights were used for the production-based series is for the year ended 31 March 2010, and all subsequent quarters use these weights.

Current price data for GDE components are timelier. As a result, the latest year for which up-to-date weights were used for the GDE series is for the year ended 31 March 2012. All subsequent quarters use these weights.

When the weights are updated, this procedure results in revisions to all periods beyond the latest year for which detailed series are available (currently 2009/10 for the production-based measure and 2011/12 for the expenditure-based measure).

Calculating real gross national disposable income

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

Calculating implicit price deflators

We calculate implicit price deflators (IPDs) by dividing the seasonally adjusted current price quarterly series by the equivalent chain-volume series. This provides a broad estimate of price change between the base period and any other period. Significant compositional changes may result in the IPDs being a less precise estimate of price change. This problem is more likely to occur in the gross national expenditure and expenditure on GDP aggregates. This is because both measures include the change in inventories item, which is highly subject to compositional changes, including a change in sign.

Tradable sector

This release includes a set of experimental time-series for the tradable and non-tradable sectors. There are two methods provided: direct and indirect. The direct methodology defines tradable industries as those industries that export a significant percentage of their output and those industries that face significant competition with imports. The indirect method uses a broader definition for tradable industries. It includes as tradable industries all those included in the direct method, but also includes those industries that supply a significant percentage of their output to the other tradable industries. Time series for each method are presented as actual and seasonally adjusted series. These series were constructed using New Zealand Standard Industrial Output Classification (NZSIOC) level 4 industry value added data. These were chain-linked into the tradable or non-tradable GDP time series. Seasonal adjustment was then applied to each of the actual time series.

Email nationalaccounts@stats.govt.nz to send us your feedback on these time series.

See [The tradable sector and its relevance to New Zealand's GDP](#) for more information.

Revisions policy

We may revise previously published series each quarter. The frequency and cause of these revisions are listed below.

- **Quarterly** – more 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 macroeconomic statistics.

- **Annual** – introduction of annual data after the release of the latest annual national accounts; annual updating of the weights used to link component series to totals and subsequent chaining (see 'Revisions resulting from chain-linking' above).
- **Irregular** – for example, methodological changes. Note that as far as possible, revisions of this nature are incorporated to coincide with the annual cycle of revisions outlined above or are discussed in a separate paper ahead of the changes.

Each of the above causes for revision, and/or the addition of a new point in the actual quarterly series, can alter seasonal factors and may lead to a revision in the seasonally adjusted series.

Interpreting the data

Annual percentage changes

When using annual percentage changes, care should be taken to ensure the measures used are correctly understood. Annual measures are calculated by summing the actual series for a four-quarter period. Unless otherwise stated, the annual percentage change is the most recent four-quarter period compared with the previous four-quarter period.

Direct and indirect seasonal adjustment

The level at which a series is seasonally adjusted is important, since it has the potential to affect its quality. 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 like 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 relevant for New Zealand, where seasonal fluctuations in the primary industries affect economic series.

We analysed both direct and indirect approaches for the two quarterly GDP aggregates, the production and expenditure on GDP. We prefer to use the direct approach 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. The balancing item will often show significant seasonal variations. This is 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.

Explanation of the seasonally adjusted balancing item

Seasonal adjustment removes seasonal variation from a statistical series. By removing seasonal effects from GDP, we can better understand the underlying economic activity. Examples of seasonal variation in economic activity are milking and lambing seasons, Christmas shopping, and peak periods for visitors to New Zealand.

The seasonal adjustment balancing item is the difference between directly seasonally adjusting total GDP and seasonally adjusting each component of GDP and adding them together. Directly seasonally adjusting total GDP is the preferred method. The seasonal adjustment balancing item does not contribute to GDP and therefore should not be interpreted as an economic variable. It should also not be interpreted as a margin of error for the headline measure of GDP, as over the course of a year it balances out to zero.

We seasonally adjust quarterly GDP in line with international best practice.

Confidentiality and accessing the data

Data collected and information contained in this publication must conform to the provisions of the Statistics Act 1975. This requires that published information maintains the confidentiality of individual respondents.

More information

See more [information about the quarterly gross domestic product](#).

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Revisions

- Interpolation
- Financial intermediation services indirectly measured
- Revisions to GDP
- Revisions to expenditure on GDP

Interpolation

For areas of the economy that have annual data but lack a quarterly indicator, an algorithm, called interpolation, is used to estimate quarterly movements from an annual benchmark. Annual benchmarks used for the quarterly GDP release are typically for years ended March. Therefore, the June 2013 quarter is the first quarter of the March 2014 year. When a new March year is entered, interpolation re-estimates quarterly movements, which can result in revisions.

Financial intermediation services indirectly measured

Updated input data for financial intermediation services indirectly measured (FISIM) resulted in revisions to financial and insurance services in the production measure of GDP, and household consumption expenditure, private non-profit final consumption expenditure, central and local government final consumption expenditure, and exports and imports of services in the expenditure measure of GDP.

Revisions to GDP

- Agriculture was revised due to updated annual benchmarks, and updated input data.
- Manufacturing was revised due to updated Economic Survey of Manufacturing data, as well as incorporating updated input data.
- Construction was revised due to the correction of an input data error for other construction in gross fixed capital formation (GFKF). The other construction series from GFKF is used as an indicator for measuring activity in the heavy and civil engineering construction sub-industry of construction.
- Wholesale trade was revised due to updated Wholesale Trade Survey data.
- Arts, recreation, and other services was revised due to updated Selected Services Survey data.
- Agriculture, forestry, and fishing; electricity, gas, water, and waste services; transport, postal, and warehousing; information media and telecommunications; financial and insurance services; rental, hiring, and real estate services; and public administration and safety were revised due to updated input data.
- Financial and insurance services; rental, hiring, and real estate services; professional, scientific, technical, administrative, and support services; and education and training were revised due to the interpolation method.

Revisions to expenditure on GDP

- Household consumption expenditure was revised due to updated selected services survey data, tax data, balance of payments data, and revisions from interpolation.
- Central government final consumption expenditure was revised due to updated input data, and revisions from interpolation.

- Local government final consumption expenditure was revised due to updated quarterly local authority survey data, and revisions from interpolation.
- Gross fixed capital formation was revised due to the correction of an input data error for other construction which affected the March 2013 quarter, revised Economic Survey of Manufacturing data, revised Wholesale Trade Survey data, revised Overseas Merchandise Trade data, updated input data for transfer costs, and revisions from interpolation. Additional revisions in current prices between June 1994 and March 2006 were caused by correcting a system issue which prevented asset types from correctly summing to total GFKF. Correcting this issue does not affect the chain-volume measure of GFKF.
- Inventories was revised due to updated input data and annual benchmarks for agriculture inventories, updated input data for forestry inventories, and revised Wholesale Trade Survey data.
- Exports and imports of goods and services was revised due to revised overseas trade data and revised balance of payments data from June 2000 onwards.

The following table shows the previously published and revised quarterly movements for GDP and expenditure on GDP.

Quarter	Gross domestic product – percent change from previous quarter		Expenditure on gross domestic product – percent change from previous quarter	
	Previously published	Revised	Previously published	Revised
June 2007	0.8	0.8	1.7	1.7
September 2007	0.6	0.6	0.7	0.7
December 2007	0.1	0.1	0.4	0.4
March 2008	-0.4	-0.4	-0.4	-0.4
June 2008	-1.0	-1.0	-1.7	-1.6
September 2008	-0.2	-0.2	-0.2	-0.1
December 2008	-0.6	-0.6	-0.1	-0.1
March 2009	-1.1	-1.1	-0.3	-0.3
June 2009	-0.3	-0.3	1.0	1.0
September 2009	0.6	0.6	0.6	0.6
December 2009	1.6	1.6	0.5	0.5
March 2010	0.1	0.1	0.5	0.4
June 2010	0.8	0.8	0.1	0.2
September 2010	-0.2	-0.3	-1.3	-1.2
December 2010	-0.4	-0.4	0.2	0.1
March 2011	0.7	0.7	0.7	0.5
June 2011	0.6	0.6	0.7	0.9
September 2011	0.8	0.8	1.0	0.9
December 2011	0.3	0.3	0.4	0.4
March 2012	1.1	1.0	1.0	1.3
June 2012	0.3	0.4	0.6	0.4
September 2012	0.3	0.3	0.7	0.4
December 2012	1.5	1.6	1.3	1.3
March 2013	0.3	0.4	0.3	0.3

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Tables

The following tables are available in Excel format from the 'Downloads' box. If you have problems viewing the files, see [opening files and PDFs](#).

- 1 Gross domestic product by industry – June 2013 quarter
- 2 Expenditure on gross domestic product – June 2013 quarter
- 3 Gross domestic product by industry – quarterly value
- 4 Gross domestic product by industry – quarterly percentage change
- 5 Gross domestic product by industry – annual value
- 6 Gross domestic product by industry – annual percentage change
- 7 Expenditure on gross domestic product – quarterly value
- 8 Expenditure on gross domestic product – quarterly percentage change
- 9 Expenditure on gross domestic product – annual value
- 10 Expenditure on gross domestic product – annual percentage change
- 11 Household consumption expenditure – quarterly value and percentage change
- 12 Household consumption expenditure – annual value and percentage change
- 13 Gross fixed capital formation – quarterly value and percentage change
- 14 Gross fixed capital formation – annual value and percentage change
- 15 Exports of goods and services – quarterly value and percentage change
- 16 Imports of goods and services – quarterly value and percentage change
- 17 Expenditure on gross domestic product current price – quarterly value
- 18 Expenditure on gross domestic product current price – quarterly percentage change
- 19 Expenditure on gross domestic product current price – annual value
- 20 Expenditure on gross domestic product current price – annual percentage change
- 21 Per capita measures – quarterly value and percentage change
- 22 Per capita measures – annual value and percentage change
- 23 Implicit price deflators – quarterly index values and percentage change
- 24 Implicit price deflators – annual index values and percentage change
- 25 Gross domestic product by industry – percentage change from same quarter of previous year
- 26 Gross domestic product by industry – year ended June value
- 27 Gross domestic product by industry – year ended June percentage change
- 28 Expenditure on gross domestic product – year ended June value and percentage change

Supplementary tables

These tables show a longer time series for expenditure on gross domestic product and gross domestic product by industry than is included in the June 2013 quarter tables. See the 'Downloads' box.

- 1 Expenditure on gross domestic product – annual value
- 2 Expenditure on gross domestic product components – quarterly value
- 3 Expenditure on gross domestic product components – quarterly percentage change
- 4 Gross domestic product by industry – annual value
- 5 Gross domestic product by industry – quarterly value
- 6 Gross domestic product by industry – quarterly percentage change

Tradable and non-tradable industries tables

These tables show quarterly actual and seasonally adjusted time series for tradable and non-tradable industries. They include a direct and an indirect methodology. See the 'Downloads' box.

1 Tradable and non-tradable industries – quarterly actual value

2 Tradable and non-tradable industries – quarterly seasonally adjusted value

Access more data on Infoshare

Use [Infoshare](#) to access time-series data specific to your needs. For this release, select the following categories from the Infoshare homepage:

Subject category: **Economic indicators**

Group: **National Accounts – SNA 1993 – SND**