

Wholesale Trade Survey: June 2013 quarter

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Key facts

For the June 2013 quarter, compared with the March 2013 quarter (on a seasonally adjusted basis):

- Total wholesale trade sales **fell** 1.5 percent (\$322 million).
- The largest fall was in machinery and equipment wholesaling, **down** 2.0 percent (\$89 million).
- The largest rise was in motor vehicle and motor-vehicle parts wholesaling, **up** 3.9 percent (\$65 million).
- Total wholesale stocks **fell** 0.8 percent (\$69 million).

Industry contribution to change in seasonally adjusted sales

Change from previous quarter
June 2013 quarter



Source: Statistics New Zealand

The trend for total wholesale trade sales has generally been increasing since the last low point in mid-2009.

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Government Statistician

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Commentary

- Wholesale sales fall in June
- Total sales trend
- Industry sales
- Stock value shows small rise

Sales figures are seasonally adjusted unless otherwise stated. There is no adjustment for changes in price level in this release.

Wholesale sales fall in June

Total wholesale trade sales fell 1.5 percent (\$322 million) during the June 2013 quarter.



Source: Statistics New Zealand

Four industries had lower sales:

- machinery and equipment wholesaling – down 2.0 percent (\$89 million)
- basic materials wholesaling – down 1.9 percent (\$88 million)
- other goods wholesaling – down 0.8 percent (\$26 million)
- commission-based wholesaling – down 2.9 percent (\$11 million).

Two industries had higher sales this quarter:

- motor vehicle and motor-vehicle parts wholesaling – up 3.9 percent (\$65 million)
- grocery, liquor, and tobacco wholesaling – up less than 0.1 percent (\$2.3 million).

Total sales trend

The trend for total wholesale trade sales has generally been increasing since the last low point in mid-2009.



Source: Statistics New Zealand

Industry sales

The following graphs indicate the sales in different wholesaling industries.

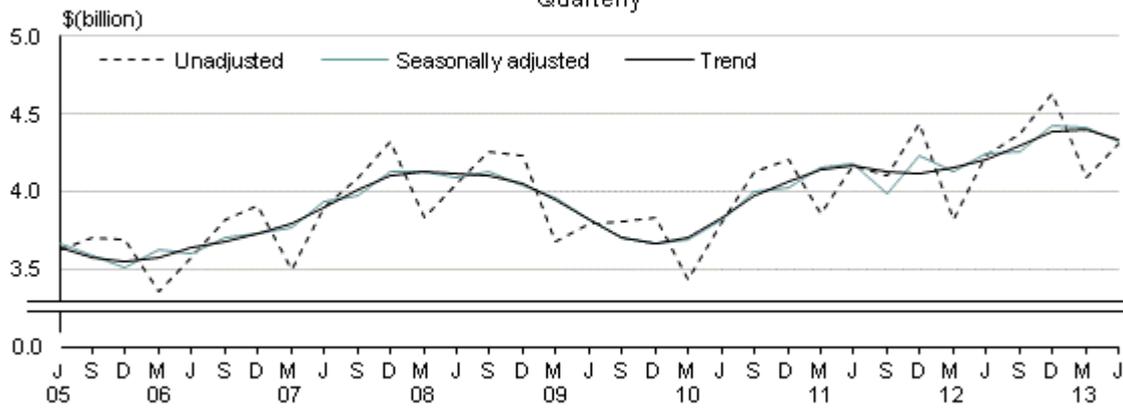
Basic materials wholesaling includes businesses that trade in agricultural supplies and products (excluding food), raw materials, and construction supplies.



Source: Statistics New Zealand

Machinery and equipment wholesaling includes businesses that trade in consumer electronics, telecommunications equipment, professional and scientific instruments, and agricultural machinery.

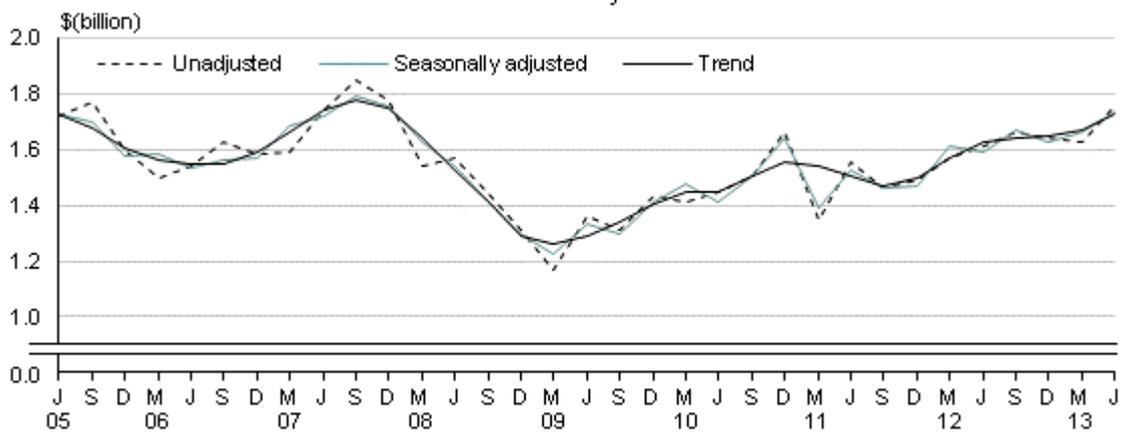
Machinery and equipment wholesaling sales Quarterly



Source: Statistics New Zealand

Motor vehicle and motor-vehicle parts wholesaling includes businesses that trade in cars, trucks, and parts.

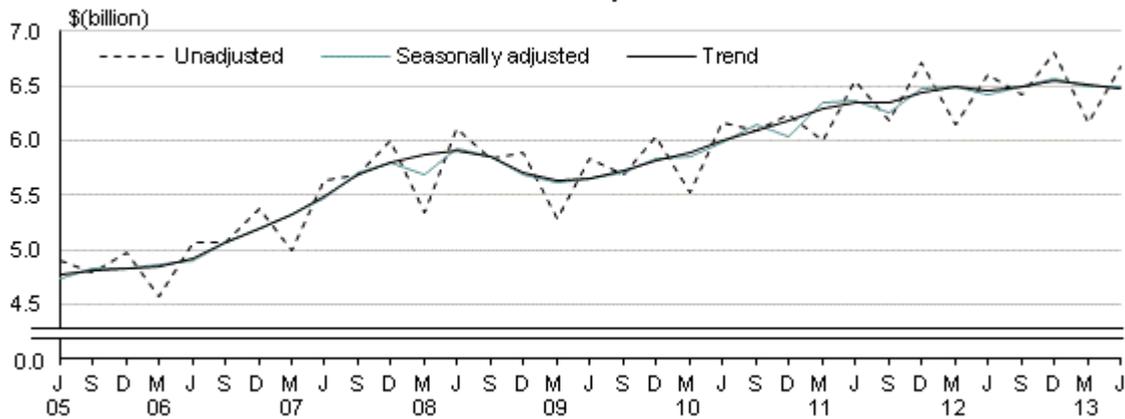
Motor vehicle and motor-vehicle parts wholesaling sales Quarterly



Source: Statistics New Zealand

Grocery, liquor, and tobacco wholesaling includes businesses that trade in processed food, fruit, specialised foods, alcohol, and tobacco.

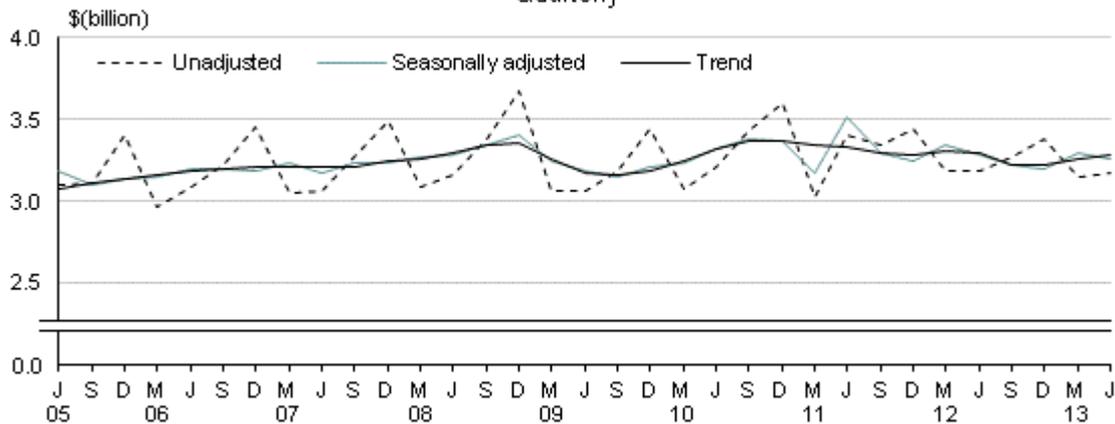
Grocery, liquor, and tobacco wholesaling sales Quarterly



Source: Statistics New Zealand

Other goods wholesaling includes businesses that trade in pharmaceutical, stationery, furniture, and textile materials.

Other goods wholesaling sales Quarterly

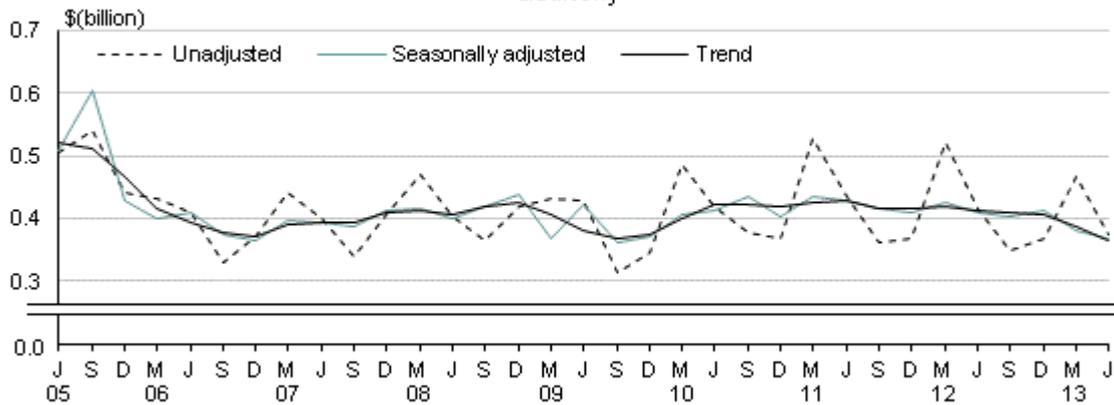


Source: Statistics New Zealand

Commission-based wholesaling includes businesses from various industries that collect commission from their sales. These include livestock agents, auction services (except real estate), and commodities brokers.

Commission-based wholesaling sales

Quarterly



Source: Statistics New Zealand

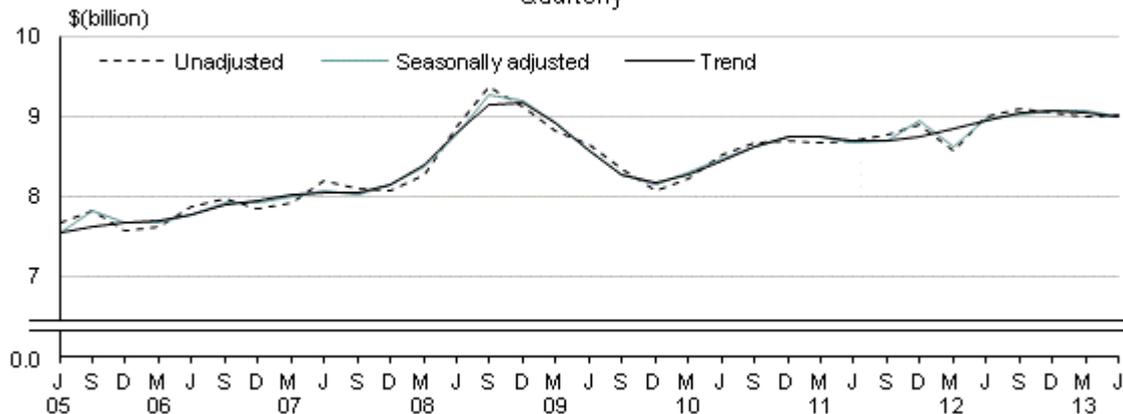
Stock value shows small rise

Stock figures are not adjusted for seasonal effects unless otherwise specified.

The total value of wholesale trade stocks at 30 June 2013 was up 0.2 percent (\$19 million) from a year earlier.

Wholesale trade total stocks

Quarterly



Source: Statistics New Zealand

Annual movements in the industries were as follows.

The industries with rises in stocks were:

- machinery and equipment wholesaling – up 14 percent (\$321 million)
- motor vehicle and motor-vehicle parts wholesaling – up 8.8 percent (\$111 million)
- other goods wholesaling – up 1.7 percent (\$32 million).

The industries with falls in stocks were:

- basic materials wholesaling – down 10 percent (\$204 million)

- groceries, liquor, and tobacco wholesaling – down 13 percent (\$202 million)
- commission-based wholesaling – down 61 percent (\$39 million).

When adjusted for seasonal effects, total wholesale trade stocks were \$9.0 billion at 30 June 2013, down 0.8 percent (\$69 million) from 31 March 2013.

The trend for total wholesale trade stocks has generally been rising since the December 2009 quarter. However, it has been flat in the latest quarters.

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

Definitions

About the Wholesale Trade Survey

The Wholesale Trade Survey (WTS) provides short-term economic indicators for the wholesale trade sector. Survey data is also used to compile the wholesale trade sector component of quarterly national accounts. The survey was last redesigned in the September 2002 quarter.

More definitions

ANZSIC: Australian and New Zealand Standard Industrial Classification system.

Business Frame: a register of all economically significant businesses operating in New Zealand. The Wholesale Trade Survey population is drawn from the Business Frame.

Enterprise: a business entity operating in New Zealand either as a legally constituted body such as a company, partnership, trust, local or central government trading organisation, or as a self-employed individual.

Kind-of-activity unit (KAU): an enterprise subdivision that is engaged in predominantly one activity and for which a single set of accounting records is available.

Operating income: income from total sales. This includes:

- sales of processed goods
- sales of goods purchased for resale
- sales of services
- repair services
- processing fees
- management fees
- rental income
- leasing income
- royalties
- patent fees.

Operating income excludes:

- interest/dividends received
- donations
- insurance claims
- subsidies
- government grants
- exchange rate gains
- extraordinary items
- gains on sales of fixed assets
- excise duties
- bad debts.

Rolling mean employment (RME): a 12-month moving average of the monthly employee-count figure.

Total stocks: closing stocks of raw materials for use in production, plus the closing stocks of finished goods, work in progress, and trading stocks.

Related links

Upcoming releases

Wholesale Trade Survey: September 2013 quarter will be released on 6 December 2013.

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The [release calendar](#) lists all our upcoming information releases by date of release.

Past releases

See [Wholesale Trade Survey](#) for links to past releases.

Data quality

Period-specific information

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

- [Measurement errors](#)
- [Postal response rate](#)

General information

This section contains information about data that does not change between releases.

- [Population](#)
- [Industry descriptions](#)
- [Sample design](#)
- [Sample maintenance](#)
- [Sample reselection](#)
- [Measurement errors](#)
- [Seasonally adjusted series](#)
- [Estimated trend](#)
- [More information](#)

Period-specific information

Measurement errors

All statistical estimates are subject to measurement errors. These include both sample errors and non-sample errors. In addition, we apply imputation methodologies to cope with small firms and non-response. These measurement errors should be considered when analysing the results from the survey.

Sample errors

At the industry level, the following sample errors were recorded in the June 2013 quarter, at the 95 percent confidence interval limit.

Wholesale Trade Survey sample errors for operating income		
June 2013 quarter		
Industry group	Level (relative percent)	Movement (absolute percent)
Basic material wholesaling	6.1	2.7
Machinery and equipment wholesaling	4.1	2.9
Motor vehicle and motor-vehicle parts wholesaling	3.4	5.0
Grocery, liquor, and tobacco product wholesaling	4.1	0.7
Other goods wholesaling	3.7	4.9
Commission-based wholesaling	7.9	4.9
Total wholesale trade	2.1	1.2

The postal survey is designed to give statistics at the following levels of accuracy (at the 95 percent confidence interval):

- 5 percent for operating income and stocks at the total wholesale trade level
- 10 percent for operating income and stocks at the published industry level.

This means, for example, that there is a 95 percent chance that the true value of total wholesale trade operating income lies within 5 percent of the published estimate.

Imputation

Small firms

Small- to medium-sized firms are generally not surveyed. Instead, we model their variables from administrative data (GST and employer monthly schedule) sourced from Inland Revenue. We apply ratios calculated from the postal sample units to the administrative data to provide an estimate of their variables.

Non-response imputation

Although we make every attempt to achieve a 100 percent response rate, in practice this does not occur. We estimate values for non-responding businesses by methods that include:

- regression imputation
- historic imputation
- mean imputation.

Regression imputation involves estimating the variable of interest from the unit's administrative data (GST sales), based on the relationship shown by similar businesses. Historic imputation involves multiplying their response in the previous period by a non-response factor. The non-response factor is the average movement over the quarter by similar businesses. Mean imputation involves estimating a value for a unit by using the average value for a set of similar businesses.

Wholesale Trade Survey operating income imputed		
June 2013 quarter		
Industry group	Tax modelled	Non-response
	Percentage of operating income	
Basic material wholesaling	12.0	6.6
Machinery and equipment wholesaling	14.2	10.5
Motor vehicle and motor-vehicle parts wholesaling	12.7	11.7
Grocery, liquor, and tobacco product wholesaling	14.4	4.0
Other goods wholesaling	14.8	10.9
Commission-based wholesaling	18.0	12.0
Total wholesale trade	13.8	7.5

Postal response rate

The response rate achieved in the June 2013 quarter was 92.5 percent. The Wholesale Trade Survey has a target response rate of 85 percent. The response rate describes the proportion of operating income that was provided by actual survey responses. Note that we calculate this response rate from the postal sample data only.

General information

Population

The target population for this survey is all kind-of-activity units (KAUs) operating in New Zealand that are classified as Wholesale Trade (Australian and New Zealand Standard Industrial Classification – ANZSIC06 Division F) on Statistics NZ's Business Frame.

Industry descriptions

A KAU is included in an industry based on its main activity for its operating income.

The six industries are defined as follows:

ANZSIC06 group name	Number
Basic material wholesaling	
Agricultural product wholesaling	331
Mineral, metal, and chemical wholesaling	332
Timber and hardware goods wholesaling	333
Machinery and equipment wholesaling	
Specialised industrial machinery and equipment wholesaling	341
Other machinery and equipment wholesaling	349
Motor vehicle and motor-vehicle parts wholesaling	
Motor vehicle and motor-vehicle parts wholesaling	350
Grocery, liquor, and tobacco product wholesaling	
Grocery, liquor, and tobacco product wholesaling	360
Other goods wholesaling	
Textile, clothing, and footwear wholesaling	371
Pharmaceutical and toiletry goods wholesaling	372
Furniture, floor covering, and other goods wholesaling	373
Commission-based wholesaling	
Commission-based wholesaling	380

Sample design

We stratify the survey population according to:

- industries defined by the ANZSIC-based NZSIOC classification
- size (in terms of the rolling-mean employment number)
- turnover (annualised GST sales).

Each NZSIOC industry classification contains between two and four substrata. Because of the contribution large units make to the economic activity within each industry group, we include them all in the sample. A portion of the remaining medium to large units is also included in the sample. In addition, we model small- to medium-sized businesses' data from administrative data (GST and employer monthly schedule) sourced from Inland Revenue.

All wholesaling KAUs belonging to a selected 'enterprise' are included. We select about 650 units from the entire population for the postal sample, and the data for approximately 35,000 units is modelled from tax data.

Sample maintenance

Sample maintenance is the process we use to maintain the sample over time, to reflect births, deaths, and other structural changes identified on the Business Frame. The information for Business Frame changes can be from a variety of sources, including GST registrations and respondent contact.

We identify new enterprises when they register for GST. Once a quarter, the new enterprises are selected into the sample using the same criteria as for the original sample. These are referred to as 'births'. When an enterprise ceases trading, its wholesaling KAUs are removed from the survey. These are referred to as 'deaths'.

Enterprises can also enter or leave the survey sample if they are reclassifications from another industry to wholesaling. Reclassifications occur when an enterprise changes its main form of activity (eg from manufacturing to wholesale trade). These are usually identified in the Annual Frame Update Survey conducted in February each year.

Sample reselection

We reselect the sample for the Wholesale Trade Survey each quarter to ensure that the sample reflects changes occurring in the wholesale trade population.

Measurement errors

Errors in the survey are divided into two classes: non-sampling error and sampling error.

Non-sampling error

Non-sampling error includes errors arising from biases in the patterns of response and non-response, inaccuracies in reporting by respondents, and errors in recording and coding data. The size of these errors is difficult to quantify. We revise data if significant errors are detected in subsequent quarters.

Sampling error

Sampling error is a measure of the variability that occurs by chance because a sample, rather than an entire population, is surveyed.

Seasonally adjusted series

The X-12-ARIMA package is used to produce the seasonally adjusted estimates and trend estimates for sales in all subdivisions. Seasonal adjustment aims to eliminate the impact of regular seasonal events (such as annual cycles in agricultural production, winter, or annual holidays) on time series. This makes the data for adjacent quarters more comparable.

We revise all seasonally adjusted figures each quarter. This enables the seasonal component to be better estimated and removed from the series.

Restructuring within the dairy industry affected the grocery, liquor, and tobacco products industry series in the September 2002 quarter. In order to maintain the long-term continuity of the seasonally adjusted and trend series for primary product, food, and total wholesaling, we

adjust the actual series before the seasonal adjustment program is run. This adjustment to the actual series removes the discontinuity in the series.

The X-12-ARIMA seasonal adjustment package is very robust. However, problems occur when there is an abrupt change in the seasonal variation, as with other seasonal adjustment packages.

Estimated trend

For any series, the survey estimates can be broken down into three components: trend, seasonal, and irregular. While seasonally adjusted series have the seasonal component removed, trend series have both the seasonal and the irregular components removed. Trend estimates reveal the underlying direction of movement in a series, and are likely to indicate turning points more accurately than seasonally adjusted estimates.

We calculate the trend series using the X-12-ARIMA seasonal adjustment package. They are based on a five-term moving average of the seasonally adjusted series, with an adjustment for outlying values.

Trend estimates towards the end of the series incorporate new data as it becomes available and can, therefore, change as more observations are added to the series. Revisions can be particularly large if an observation is treated as an outlier in one quarter, but is found to be part of the underlying trend as further observations are added to the series. Typically, only the estimates for the most recent quarter will be substantially revised.

More information

See [Wholesale Trade Survey](#) for more information.

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Revision

There is a revision for the March 2013 quarter due to new information collected from respondents during the June 2013 quarter.

Series affected		Published on	
		7 Jun 2013	6 Sep 2013
		(\$million)	
Machinery and equipment wholesaling sales	WTSQ.SB1CA	4,041	4,089
Grocery, liquor, and tobacco wholesaling sales	WTSQ.SD1CA	6,258	6,158
Wholesale trade total sales	WTSQ.SZ1CA	19,950	19,897
Machinery and equipment wholesaling finished goods stocks	WTSQ.SB5CA	2,583	2,555
Machinery and equipment wholesaling total stocks	WTSQ.SB9CA	2,698	2,670
Wholesale trade total finished goods stocks	WTSQ.SZ5CA	8,649	8,621
Wholesale trade total stocks	WTSQ.SZ9CA	9,034	9,006

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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. Wholesale trade, ANZSIC Division F
2. Unadjusted wholesale sales, by industry
3. Seasonally adjusted wholesale sales, by industry
4. Wholesale sales trend, by industry
5. Unadjusted wholesale stocks, by industry
6. Seasonally adjusted wholesale stocks, by industry
7. Wholesale stocks trend, by industry

Access more data on Infoshare

Use [Infoshare](#) to access time-series data specific to your needs, including the **ANZSIC96 forward-cast series** up to the March 2012 quarter. Select the following category from the Infoshare homepage:

Subject category: **Industry sectors**
Group: **Wholesale Trade Survey**