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# Statistical release

## P6141.2

# Wholesale trade sales (Preliminary)

March 2013

This is the first statistical release presenting wholesale trade sales at constant prices with 2012 as the base year

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(012) 310 8600

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**Contents**

**Sales at constant 2012 prices: results for March 2013 ..... 2**

Table A – Key growth rates in wholesale trade sales at constant 2012 prices ..... 2

Figure 1 – Wholesale trade sales at constant 2012 prices..... 2

**Sales at current prices: results for March 2013..... 3**

Table B – Key growth rates in wholesale trade sales at current prices..... 3

Table C – Wholesale trade sales at current prices for the latest three months by type of dealer..... 3

**Article: Construction of new deflators for wholesale trade sales and adjusting the base period  
from 2000 to 2012 ..... 4**

Figure 2 – Comparison of levels for wholesale trade sales at constant 2000 prices (old PPI) and constant 2012  
prices (new PPI) from January 2009 to December 2012..... 5

Figure 3 – Comparison of the year-on-year growth rates in total wholesale trade sales at constant 2000 prices (old  
PPI) and constant 2012 prices (new PPI), up to December 2012..... 5

**Tables..... 6**

Table 1 – Wholesale trade sales at constant 2012 prices (R million)..... 6

Table 2 – Year-on-year percentage change in wholesale trade sales at constant 2012 prices..... 6

Table 3 – Seasonally adjusted wholesale trade sales at constant 2012 prices ..... 6

Table 4 – Wholesale trade sales at current prices (R million) ..... 7

Table 5 – Year-on-year percentage change in wholesale trade sales at current prices ..... 7

Table 6 – Seasonally adjusted wholesale trade sales at current prices..... 7

Table 7 – Wholesale trade sales at current prices by type of dealer (R million) ..... 8

Table 8 – Year-on-year percentage change in wholesale trade sales at current prices by type of dealer ..... 8

Table 9 – Contribution of type of dealer to the year-on-year percentage change in wholesale trade sales at current  
prices ..... 8

**Survey information..... 9**

**Technical notes ..... 11**

**Glossary ..... 13**

**Technical enquiries ..... 13**

**General information ..... 14**

**Sales at constant 2012 prices: results for March 2013**

**Table A – Key growth rates in wholesale trade sales at constant 2012 prices**

	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13
Year-on-year % change, unadjusted	10,3	9,5	3,3	6,7	2,2	-0,7
Month-on-month % change, seasonally adjusted	8,4	0,5	-2,1	3,5	-2,1	-5,8
3-month % change, seasonally adjusted 1/	1,2	2,2	4,8	3,7	2,4	-1,2

1/ Percentage change between the previous 3 months and the 3 months ending in the month indicated.

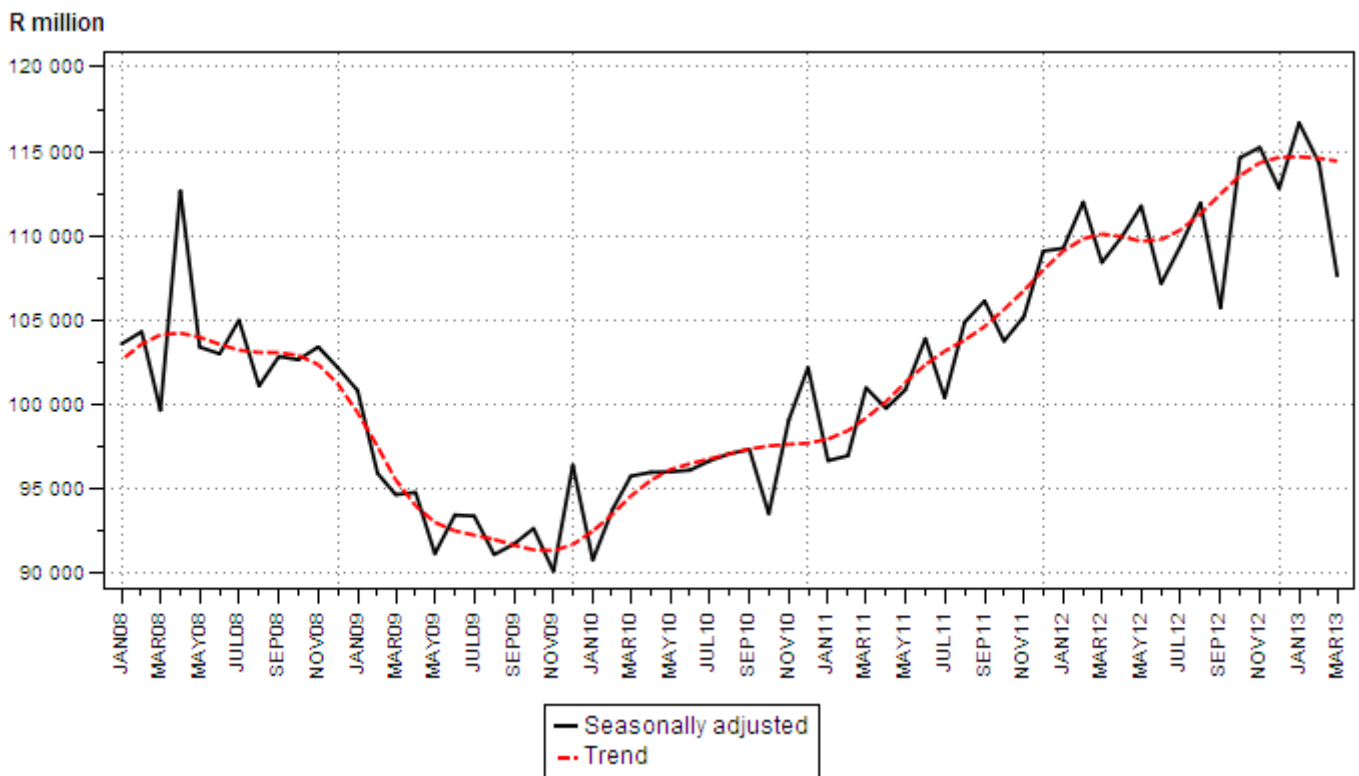
Measured in real terms (constant 2012 prices), wholesale trade sales decreased by 0,7% year-on-year in March 2013. Seasonally adjusted wholesale trade sales decreased by 5,8% in March 2013 compared with February 2013. This followed month-on-month changes of -2,1% in February 2013 and 3,5% in January 2013.

**Cautionary note:**

Note that the Easter weekend fell partly in March and partly in April in 2013, whereas in 2012 it fell in April. This may have adversely affected the performance of wholesale trade in March 2013, which should be taken into account in assessing the decrease of 0,7% year-on-year. There were 19 working days in March 2013 compared with 21 working days in March 2012. The seasonally adjusted decline of 5,8% between February and March 2013 should also be treated with caution. Stats SA’s current methodology for the seasonal adjustment of wholesale trade does not adjust for shifts in the timing of Easter, so when Easter is spread over the end of March and the beginning of April, it is advisable to consider the two months together (once the April results become available). If the “Easter effect” were to be applied partly to March 2013, the month-on-month seasonally adjusted outcome would reflect a stronger performance than indicated here. Stats SA is working on the rollout of an improved seasonal adjustment methodology (already implemented in retail trade) to all its seasonally adjusted series.

Seasonally adjusted wholesale trade sales decreased by 1,2% in the first quarter of 2013 compared with the previous quarter.

**Figure 1 – Wholesale trade sales at constant 2012 prices**



### Sales at current prices: results for March 2013

**Table B – Key growth rates in wholesale trade sales at current prices**

	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13
Year-on-year % change, unadjusted	14,5	14,2	7,9	12,9	7,6	4,9
Month-on-month % change, seasonally adjusted	8,8	1,5	-3,3	6,4	-3,5	-3,4
3-month % change, seasonally adjusted 1/	2,8	4,3	6,5	5,4	3,4	1,0

1/ Percentage change between the previous 3 months and the 3 months ending in the month indicated.

Measured in nominal terms (current prices), wholesale trade sales increased by 4,9% in March 2013 compared with March 2012. The major contributors to this increase were dealers in:

- solid, liquid and gaseous fuels and related products (16,1% and contributing 3,7 percentage points); and
- food, beverages and tobacco (14,4% and contributing 2,2 percentage points) – see Tables 8 and 9.

**Table C – Wholesale trade sales at current prices for the latest three months by type of dealer**

Type of dealer	Jan – Mar 2012 (R million)	Weight	Jan – Mar 2013 (R million)	% change between Jan – Mar 2012 and Jan – Mar 2013	Contribution (% points) to the total % change
Fee or contract basis	16 566	5,4	14 571	-12,0	-0,6
Agricultural raw materials and livestock	15 873	5,1	18 900	19,1	1,0
Food, beverages and tobacco	45 869	14,9	51 357	12,0	1,8
Textiles, clothing and footwear	7 198	2,3	6 985	-3,0	-0,1
Other household goods except precious stones	33 149	10,7	37 313	12,6	1,3
Precious stones, jewellery and silverware	2 896	0,9	4 093	41,3	0,4
Solid, liquid and gaseous fuels and related products	74 762	24,2	84 548	13,1	3,2
Metal and metal ores	10 447	3,4	10 291	-1,5	-0,1
Construction and building materials	14 804	4,8	15 261	3,1	0,1
Other intermediate products, waste and scrap	13 091	4,2	11 922	-8,9	-0,4
Machinery, equipment and supplies	42 349	13,7	44 517	5,1	0,7
Other goods	31 411	10,2	34 090	8,5	0,9
<b>Total</b>	<b>308 414</b>	<b>100,0</b>	<b>333 850</b>	<b>8,2</b>	<b>8,2</b>

Wholesale trade sales increased by 8,2% in the first quarter of 2013 compared with the first quarter of 2012. The major contributors to this increase were dealers in:

- solid, liquid and gaseous fuels and related products (13,1% and contributing 3,2 percentage points);
- food, beverages and tobacco (12,0% and contributing 1,8 percentage points); and
- 'other' household goods except precious stones (12,6% and contributing 1,3 percentage points) – see Table C.

**PJ Lehohla**  
**Statistician-General**

## **Article: New deflation method for wholesale trade sales, and change in the base period from 2000 to 2012**

Statistics South Africa (Stats SA) publishes monthly data for the wholesale trade industry. The publication contains estimated sales at both current and constant prices. As part of its improvement programme in economic statistics, Stats SA today introduces a change in the reference year for constant price estimates from 2000 prices to 2012 prices. The re-engineered producer price index (PPI) has provided material for a new deflation method for wholesale trade.

The previous wholesale deflator was based on the old headline PPI, and more specifically the “all groups” PPI for domestic output but excluding electricity and other utilities. With effect from January 2012, the “all groups” PPI was discontinued and replaced by five separate PPIs, namely final manufacturing; intermediate manufacturing; electricity and water; mining; and agriculture, forestry and fishing. The new headline PPI is the PPI for final manufacturing. This change in the compilation of producer prices has necessitated a change in the method for deflating wholesale trade sales.

Total wholesale trade, with effect from January 2012, was deflated in three stages:

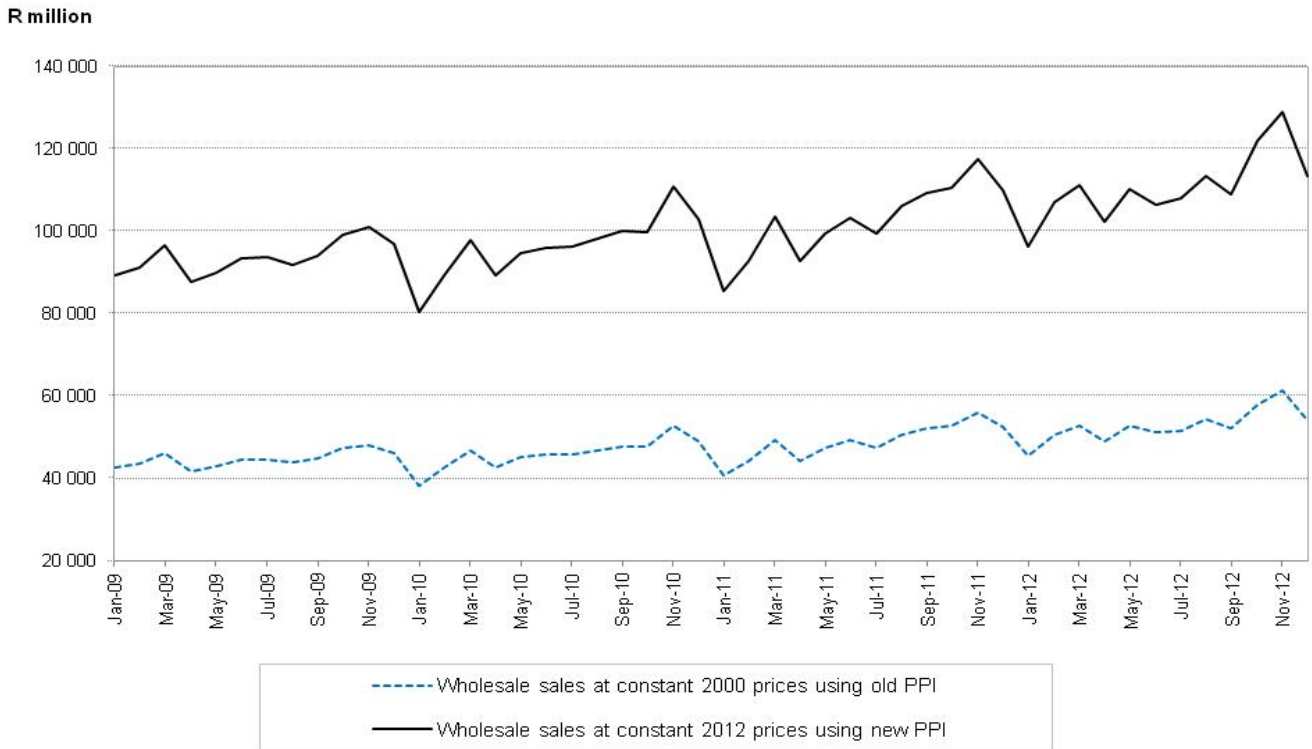
- (1) Deflate sales of dealers in agricultural raw materials and livestock using the PPI for agriculture.
- (2) Deflate sales of dealers in food, beverages and tobacco using the final manufacturing PPI for food products, beverages and tobacco.
- (3) Deflate the remaining wholesale trade sales (excluding sales of dealers in agricultural raw materials and livestock; and food, beverages and tobacco) with the headline PPI (final manufacturing) excluding the PPIs for food, beverages and tobacco; and transport equipment.
- (4) Obtain total wholesale trade sales at constant 2012 prices by aggregating (1), (2) and (3).

The revisions in the *annual growth rates* for total wholesale trade sales in constant prices are small, as shown in Figure 3.

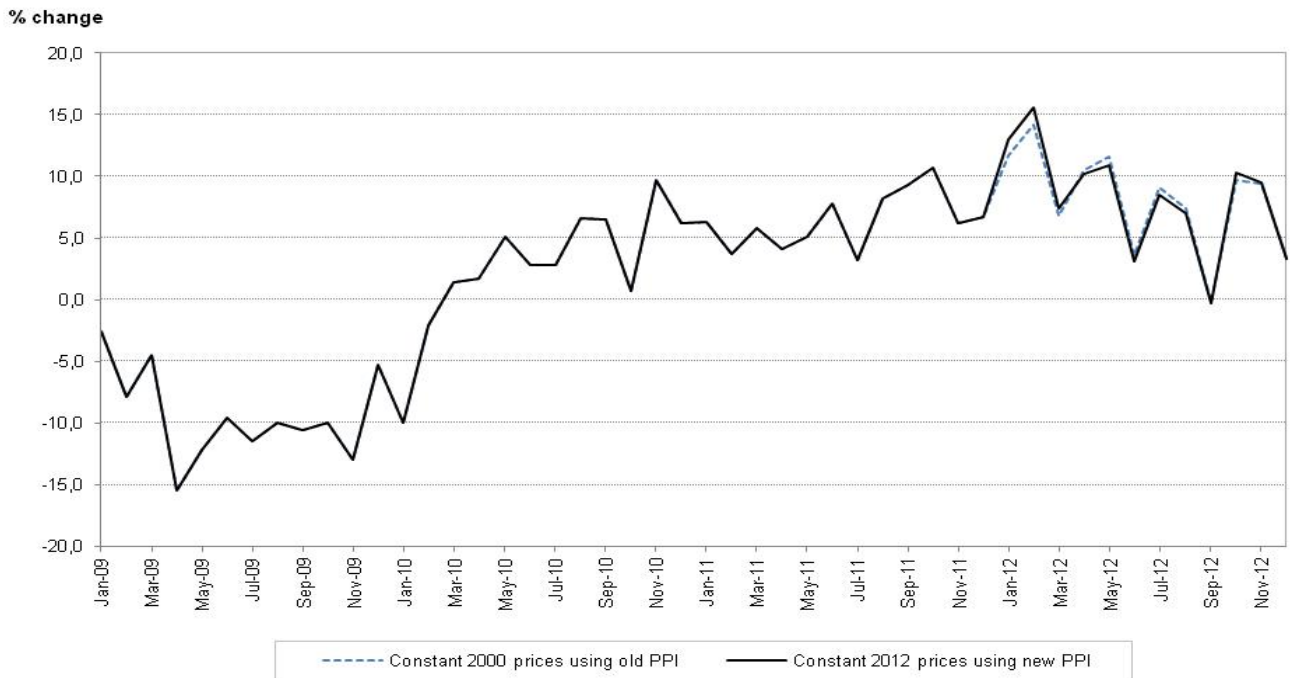
To provide users with a historical time series for wholesale trade that is broadly consistent with the new series, wholesale trade sales at constant 2012 prices from January 1998 to December 2011 have been calculated. This was done by applying the “all groups” PPI for domestic output, but excluding electricity and other utilities, to total sales at current prices for the period 1998 to 2011.

The impact of the implementation of the new deflators on total sales in constant prices is illustrated in Figures 2 and 3.

**Figure 2 – Comparison of levels for wholesale trade sales at constant 2000 prices (old PPI) and constant 2012 prices (new PPI) from January 2009 to December 2012**



**Figure 3 – Comparison of the year-on-year growth rates in total wholesale trade sales at constant 2000 prices (old PPI) and constant 2012 prices (new PPI), up to December 2012**



**Tables**

**Table 1 – Wholesale trade sales at constant 2012 prices (R million)**

Month	2007	2008	2009	2010	2011	2012	2013 1/
Jan	84 717	91 639	89 233	80 307	85 357	96 439	102 909
Feb	90 313	99 060	91 282	89 365	92 713	107 211	109 542
Mar	95 198	101 062	96 540	97 944	103 615	111 334	110 566
Apr	85 974	103 726	87 716	89 216	92 885	102 389	
May	96 066	102 417	89 996	94 581	99 406	110 269	
Jun	95 281	103 191	93 322	95 917	103 399	106 579	
Jul	96 794	105 852	93 676	96 314	99 413	107 887	
Aug	99 660	102 199	91 973	98 091	106 110	113 527	
Sep	98 275	105 021	93 911	100 065	109 402	109 119	
Oct	107 289	110 161	99 163	99 849	110 507	121 889	
Nov	111 779	116 023	100 978	110 793	117 696	128 825	
Dec	94 092	102 352	96 920	102 963	109 823	113 462	
<b>Total</b>	<b>1 155 438</b>	<b>1 242 703</b>	<b>1 124 710</b>	<b>1 155 405</b>	<b>1 230 326</b>	<b>1 328 930</b>	

1/ Latest month is preliminary.

**Table 2 – Year-on-year percentage change in wholesale trade sales at constant 2012 prices**

Month	2008	2009	2010	2011	2012	2013	2013 year-to-date
Jan	8,2	-2,6	-10,0	6,3	13,0	6,7	6,7
Feb	9,7	-7,9	-2,1	3,7	15,6	2,2	4,3
Mar	6,2	-4,5	1,5	5,8	7,4	-0,7	2,6
Apr	20,6	-15,4	1,7	4,1	10,2		
May	6,6	-12,1	5,1	5,1	10,9		
Jun	8,3	-9,6	2,8	7,8	3,1		
Jul	9,4	-11,5	2,8	3,2	8,5		
Aug	2,5	-10,0	6,7	8,2	7,0		
Sep	6,9	-10,6	6,6	9,3	-0,3		
Oct	2,7	-10,0	0,7	10,7	10,3		
Nov	3,8	-13,0	9,7	6,2	9,5		
Dec	8,8	-5,3	6,2	6,7	3,3		
<b>Total</b>	<b>7,6</b>	<b>-9,5</b>	<b>2,7</b>	<b>6,5</b>	<b>8,0</b>		

**Table 3 – Seasonally adjusted wholesale trade sales at constant 2012 prices**

Month	R million				Month-on-month % change			
	2010	2011	2012	2013	2010	2011	2012	2013
Jan	90 808	96 686	109 265	116 694	-5,8	-5,4	0,2	3,5
Feb	93 825	96 984	111 994	114 301	3,3	0,3	2,5	-2,1
Mar	95 772	101 003	108 421	107 647	2,1	4,1	-3,2	-5,8
Apr	95 996	99 785	109 953		0,2	-1,2	1,4	
May	96 024	100 883	111 765		0,0	1,1	1,6	
Jun	96 127	103 916	107 178		0,1	3,0	-4,1	
Jul	96 674	100 413	109 403		0,6	-3,4	2,1	
Aug	97 096	104 882	111 949		0,4	4,5	2,3	
Sep	97 354	106 147	105 738		0,3	1,2	-5,5	
Oct	93 545	103 759	114 622		-3,9	-2,2	8,4	
Nov	99 081	105 227	115 237		5,9	1,4	0,5	
Dec	102 205	109 096	112 799		3,2	3,7	-2,1	

**Table 4 – Wholesale trade sales at current prices (R million)**

Month	2007	2008	2009	2010	2011	2012	2013 1/
Jan	61 041	72 982	76 883	70 387	77 968	93 702	105 804
Feb	65 472	80 035	78 293	78 555	86 046	105 026	113 002
Mar	70 100	83 509	82 893	86 462	97 154	109 686	115 044
Apr	64 309	87 299	75 203	79 638	87 184	101 455	
May	72 823	90 717	76 261	84 446	93 566	110 073	
Jun	72 931	92 148	78 396	86 151	97 631	106 150	
Jul	74 540	95 617	79 160	86 119	94 831	107 517	
Aug	77 060	92 773	77 847	87 981	102 293	113 859	
Sep	76 166	93 866	79 148	89 383	106 566	109 756	
Oct	84 092	98 229	84 156	89 210	107 989	123 658	
Nov	87 938	101 994	86 484	99 690	115 430	131 874	
Dec	74 247	88 822	83 685	92 928	107 644	116 175	
<b>Total</b>	<b>880 719</b>	<b>1 077 991</b>	<b>958 409</b>	<b>1 030 950</b>	<b>1 174 302</b>	<b>1 328 931</b>	

1/ Latest month is preliminary.

**Table 5 – Year-on-year percentage change in wholesale trade sales at current prices**

Month	2008	2009	2010	2011	2012	2013	2013 year-to-date
Jan	19,6	5,3	-8,4	10,8	20,2	12,9	12,9
Feb	22,2	-2,2	0,3	9,5	22,1	7,6	10,1
Mar	19,1	-0,7	4,3	12,4	12,9	4,9	8,2
Apr	35,7	-13,9	5,9	9,5	16,4		
May	24,6	-15,9	10,7	10,8	17,6		
Jun	26,3	-14,9	9,9	13,3	8,7		
Jul	28,3	-17,2	8,8	10,1	13,4		
Aug	20,4	-16,1	13,0	16,3	11,3		
Sep	23,2	-15,7	12,9	19,2	3,0		
Oct	16,8	-14,3	6,0	21,1	14,5		
Nov	16,0	-15,2	15,3	15,8	14,2		
Dec	19,6	-5,8	11,0	15,8	7,9		
<b>Total</b>	<b>22,4</b>	<b>-11,1</b>	<b>7,6</b>	<b>13,9</b>	<b>13,2</b>		

**Table 6 – Seasonally adjusted wholesale trade sales at current prices**

Month	R million				Month-on-month % change			
	2010	2011	2012	2013	2010	2011	2012	2013
Jan	80 436	89 243	107 407	121 471	-2,9	-2,5	1,5	6,4
Feb	82 839	89 984	109 189	117 196	3,0	0,8	1,7	-3,5
Mar	85 124	95 450	107 824	113 206	2,8	6,1	-1,3	-3,4
Apr	85 275	93 360	108 681		0,2	-2,2	0,8	
May	85 382	94 734	111 468		0,1	1,5	2,6	
Jun	86 246	98 095	106 779		1,0	3,5	-4,2	
Jul	85 764	95 068	108 227		-0,6	-3,1	1,4	
Aug	86 878	100 983	112 253		1,3	6,2	3,7	
Sep	87 317	103 897	106 888		0,5	2,9	-4,8	
Oct	83 613	101 446	116 313		-4,2	-2,4	8,8	
Nov	89 369	103 342	118 070		6,9	1,9	1,5	
Dec	91 522	105 846	114 134		2,4	2,4	-3,3	



**Table 7 – Wholesale trade sales at current prices by type of dealer (R million)**

Type of dealer	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13 1/
Fee or contract basis	5 851	6 492	6 338	5 051	4 692	4 828
Agricultural raw materials and livestock	7 142	8 595	8 005	6 387	6 525	5 988
Food, beverages and tobacco	18 017	19 797	22 812	15 461	16 899	18 997
Textiles, clothing and footwear	3 394	3 583	2 317	1 901	2 348	2 736
Other household goods except precious stones	14 332	15 182	11 193	11 556	12 463	13 294
Precious stones, jewellery and silverware	1 530	1 777	1 147	780	1 380	1 933
Solid, liquid and gaseous fuels and related products	29 771	29 691	26 838	27 452	27 687	29 409
Metals and metal ores	3 970	3 970	2 184	3 065	3 726	3 500
Construction and building materials	6 189	6 881	4 067	4 485	5 323	5 453
Other intermediate products, waste and scrap	5 160	5 313	3 757	3 787	4 282	3 853
Machinery, equipment and supplies	15 980	16 234	13 518	14 668	15 787	14 062
Other goods	12 322	14 359	13 997	11 210	11 890	10 990
<b>Total</b>	<b>123 658</b>	<b>131 874</b>	<b>116 175</b>	<b>105 804</b>	<b>113 002</b>	<b>115 044</b>

1/ Preliminary.

**Table 8 – Year-on-year percentage change in wholesale trade sales at current prices by type of dealer**

Type of dealer	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13
Fee or contract basis	-2,7	16,5	-1,9	-3,2	-11,0	-20,6
Agricultural raw materials and livestock	16,4	29,5	28,2	22,5	18,4	16,3
Food, beverages and tobacco	15,9	17,8	20,1	6,5	14,6	14,4
Textiles, clothing and footwear	9,2	11,6	2,0	-12,2	-0,6	2,5
Other household goods except precious stones	13,9	13,0	3,9	18,5	13,8	6,9
Precious stones, jewellery and silverware	59,2	74,2	-26,4	-1,0	21,7	98,5
Solid, liquid and gaseous fuels and related products	26,4	12,9	7,8	23,6	1,7	16,1
Metals and metal ores	1,2	-2,0	-4,8	4,6	-1,6	-6,1
Construction and building materials	13,0	10,4	-7,1	7,3	5,7	-2,4
Other intermediate products, waste and scrap	3,1	4,9	-6,1	-13,5	-4,6	-8,8
Machinery, equipment and supplies	7,3	10,5	-1,9	30,0	9,1	-15,3
Other goods	14,2	15,7	16,5	1,4	18,2	6,7
<b>Total</b>	<b>14,5</b>	<b>14,2</b>	<b>7,9</b>	<b>12,9</b>	<b>7,6</b>	<b>4,9</b>

**Table 9 – Contribution of type of dealer to the year-on-year percentage change in wholesale trade sales at current prices**

Type of dealer	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13
Fee or contract basis	-0,2	0,8	-0,1	-0,2	-0,6	-1,1
Agricultural raw materials and livestock	0,9	1,7	1,6	1,3	1,0	0,8
Food, beverages and tobacco	2,3	2,6	3,5	1,0	2,0	2,2
Textiles, clothing and footwear	0,3	0,3	0,0	-0,3	0,0	0,1
Other household goods except precious stones	1,6	1,5	0,4	1,9	1,4	0,8
Precious stones, jewellery and silverware	0,5	0,7	-0,4	0,0	0,2	0,9
Solid, liquid and gaseous fuels and related products	5,8	2,9	1,8	5,6	0,4	3,7
Metals and metal ores	0,0	-0,1	-0,1	0,1	-0,1	-0,2
Construction and building materials	0,7	0,6	-0,3	0,3	0,3	-0,1
Other intermediate products, waste and scrap	0,1	0,2	-0,2	-0,6	-0,2	-0,3
Machinery, equipment and supplies	1,0	1,3	-0,2	3,6	1,3	-2,3
Other goods	1,4	1,7	1,8	0,2	1,7	0,6
<b>Total</b>	<b>14,5</b>	<b>14,2</b>	<b>7,9</b>	<b>12,9</b>	<b>7,6</b>	<b>4,9</b>

## Survey information

- Introduction**
- 1 Statistics South Africa (Stats SA) conducts a monthly survey covering enterprises in the wholesale trade industry (see 4 below). This survey is based on a sample drawn from Stats SA's 2012 business sampling frame (BSF) that contains businesses registered at the South African Revenue Service (SARS) for value added tax (VAT) and income tax (IT). Stats SA continuously updates its BSF, which is linked to the SARS administrative data.
  - 2 In order to improve timeliness, some information for the latest month had to be estimated due to late response. These estimates will be revised in future statistical releases as soon as information becomes available. Published wholesale trade sales estimates exclude VAT.
- Purpose of the survey**
- 3 The results of the monthly wholesale trade sales survey are used to compile estimates of the gross domestic product (GDP) and its components, which are used in monitoring the state of the economy and formulation of economic policy. These statistics are also used in the analysis of comparative business and industry performance.
- Scope of the survey**
- 4 This survey covers wholesale enterprises according to the following types of dealers:
    - Wholesale trade on a fee or contract basis – sales by commission agents, commodity brokers, auctioneers and other wholesale trade on a fee or contract basis;
    - Wholesale trade in agricultural raw materials and livestock;
    - Wholesale trade in food, beverages and tobacco;
    - Wholesale trade in textiles, clothing and footwear;
    - Wholesale trade in other household goods except precious stones. This group includes wholesale trade in household furniture, requisites and appliances, wholesale trade in books and stationery, wholesale trade in pharmaceuticals and toiletries and wholesale trade in other household goods not elsewhere classified;
    - Wholesale trade in precious stones, jewellery and silverware;
    - Wholesale trade in solid, liquid and gaseous fuels and related products;
    - Wholesale trade in metals and metal ores;
    - Wholesale trade in construction materials, hardware, plumbing and heating equipment and supplies;
    - Wholesale trade in other intermediate products, waste and scrap;
    - Wholesale trade in machinery, equipment and supplies; and
    - Wholesale trade in other goods. This group covers general wholesale trade and other wholesale trade not classified elsewhere.
- Classification**
- 5 The 1993 edition of the *Standard Industrial Classification of all Economic Activities (SIC)*, Fifth Edition, Report No. 09-90-02, was used to classify the statistical units in the survey. The SIC is based on the 1990 *International Standard Industrial Classification of all Economic Activities (ISIC)* with suitable adaptations for local conditions. Each enterprise is classified to the industry which reflects its predominant activity. Statistics in this publication are presented at SIC four digit level.
- Collection rate**
- 6 The preliminary collection rate for the survey on wholesale trade sales for March 2013 was 85,4%. The improved collection rate for February 2013 was 90,7%.

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<b>Statistical unit</b>	<b>7</b>	The statistical unit for which information is compiled and published is the enterprise, defined as a legal unit or a combination of legal units that includes and directly controls all functions necessary to carry out its sales activities. The statistical units are derived from and linked to the South African Revenue Service (SARS) administrative data.
<b>Revised figures</b>	<b>8</b>	Revised figures are mainly due to late submission of data to Stats SA, or respondents reporting revisions or corrections to their figures. Preliminary figures, as indicated in the relevant tables, are subject to change and when revised will not be indicated as such.
<b>Related publications</b>	<b>9</b>	Users may also refer to the following publications available from Stats SA: <ul style="list-style-type: none"><li>• <i>Bulletin of Statistics</i> issued quarterly; and</li><li>• <i>SA Statistics</i> issued annually.</li></ul>
<b>Rounding-off of figures</b>	<b>10</b>	Where figures have been rounded off, discrepancies may occur between sums of the component items and the totals.
<b>Historical data</b>	<b>11</b>	Historical wholesale trade sales data are available on the Stats SA webpage. To access the data electronically, use the following link: <a href="http://www.statssa.gov.za/timeseriesdata/timeseriesdata.asp">http://www.statssa.gov.za/timeseriesdata/timeseriesdata.asp</a>
<b>Past publications</b>	<b>12</b>	Past wholesale trade sales releases are available on the Stats SA webpage. To access the releases electronically, use the following link: <a href="http://www.statssa.gov.za/publications/statspastfuture.asp?PPN=P6141.2&amp;SCH=">http://www.statssa.gov.za/publications/statspastfuture.asp?PPN=P6141.2&amp;SCH=</a>

**Technical notes**

**Survey methodology and design**

- 1 The survey is conducted monthly. Questionnaires are sent to a sample of about 1 000 enterprises from a population of about 19 600 enterprises. Completed questionnaires are required to be returned to Stats SA within 10 days after the end of the reference month. Email, fax and telephone reminders are used to follow up on non-respondents.
- 2 A stratified random sample was drawn at the SIC four-digit level in April 2012 from Stats SA’s business sampling frame (BSF). Strata were formed using a combination of Standard Industrial Classification and the measure of size classes for enterprises (see point 3 below).

The Neyman optimal allocation formula given below was used to allocate samples to each stratum.

$$n_h = \frac{N_h S_h}{\sum N_h S_h}$$

$N_h$  and  $S_h$  are the stratum population size and the stratum variance respectively.

Neyman allocation formula not only allocates sample sizes to each stratum but also calculates the relative precision for each stratum as well as the relative precision for all strata. The relative precision for these strata did not exceed 5,6%.

**Class limits**

- 3 The wholesale sampling frame is divided into four size groups. All large enterprises (size group one) are completely enumerated. Simple random sampling is applied to the remaining size groups (medium, small and very small). The total value of sales of the large enterprises (size group one) is added to the weighted totals of size group two, three and four to reflect the total value of sales.

**Measure of size classes (Rand)**

Enterprise size	Size group	Lower limits	Upper limits
Very small	4	0	24 000 000
Small	3	24 000 001	128 000 000
Medium	2	128 000 001	256 000 000
Large	1	256 000 001	

**Sample weighting**

- 4 For those strata not completely enumerated, the weights to produce estimates are the inverse ratio of the sampling fraction, modified to take account of non-response in the survey. Stratum estimates are calculated and then aggregated with the completely enumerated stratum to form group estimates. These procedures are consistent with international best practice.

<b>Seasonal adjustment</b>	<b>5</b>	Seasonally adjusted estimates are generated each month using the X-11 Seasonal Adjustment Program developed by the US Bureau of the Census, 1968. Seasonal adjustment is a means of removing the estimated effects of normal seasonal variation from the series so that the effects of other influences on the series can be more clearly recognised. Seasonal adjustment does not aim to remove irregular or non-seasonal influences which may be present in any particular month. Influences that are volatile or unsystematic can still make it difficult to interpret the movement of the series even after adjustment for seasonal variations. Currently, no adjustment is made for changes in the timing of Easter. Therefore, the month-to-month movements of seasonally adjusted estimates may not be reliable indicators of trend behaviour.
<b>Trend cycle</b>	<b>6</b>	The trend is the long-term pattern or movement of a time series. The X-11 Seasonal Adjustment Program is used for smoothing seasonally adjusted estimates to estimates of the underlying trend cycle.
<b>Constant prices</b>	<b>7</b>	<p>Stats SA compiles its monthly estimates of wholesale trade sales at current prices from a survey of wholesalers in the formal sector. For January 1998 to December 2011 wholesale trade sales at constant prices were calculated using the “all groups” PPI for domestic output, but excluding electricity and other utilities.</p> <p>From January 2012, wholesale trade sales at constant prices are compiled in three stages:</p> <ol style="list-style-type: none"> <li>(1) Deflate sales of dealers in agricultural raw materials and livestock using the PPI for agriculture.</li> <li>(2) Deflate sales of dealers in food, beverages and tobacco using the PPI for food products, beverages and tobacco.</li> <li>(3) Deflate the remaining wholesale trade sales with the headline PPI (final manufacturing) excluding the PPIs for food products, beverages and tobacco; and transport equipment.</li> </ol> <p>Total wholesale trade sales at constant prices is obtained by aggregating (1), (2) and (3).</p>
<b>Reliability of estimates</b>	<b>8</b>	Data presented in this publication are based on information obtained from a sample and are, therefore, subject to sampling variability; that is, they may differ from the figures that would have been produced if the data had been obtained from all enterprises in the wholesale industry in South Africa. Estimates are subject to sampling and non-sampling errors.
	<b>9</b>	Inaccuracies may occur because of imperfections in reporting by enterprises and errors made in the collection and processing of the data. Inaccuracies of this kind are referred to as non-sampling errors. Every effort is made to minimise non-sampling errors by careful design of questionnaires, testing them in pilot studies, editing reported data and implementing efficient operating procedures. Fluctuations may occur in consecutive months as a result of seasonal and economic factors.
<b>Month-on-month percentage change</b>	<b>10</b>	The month-on-month percentage change in a variable for any given month is the change between that month and the previous month, expressed as a percentage of the latter.
<b>Year-on-year percentage change</b>	<b>11</b>	The year-on-year percentage change in a variable for any given period is the change between that period and the corresponding period of the previous year, expressed as a percentage of the latter.
<b>Contribution (percentage points)</b>	<b>12</b>	The contribution (percentage points) to the year-on-year percentage change is calculated by multiplying the percentage change of each type of wholesaler by its corresponding weight, divided by 100. The weight is the percentage contribution of each type of wholesaler to total wholesale trade sales in the corresponding period of the previous year.

## Glossary

**Enterprise** An enterprise is a legal entity or a combination of legal units that includes and directly controls all functions necessary to carry out its sales activities.

**Industry** An industry is made up of enterprises engaged in the same or similar kinds of economic activity. Industries are defined in the *System of National Accounts (SNA)* in the same way as in the *Standard Industrial Classification of all Economic Activities, Fifth Edition, Report No. 09-90-02 of January 1993 (SIC)*.

**Symbols and abbreviations**

BSF	Business sampling frame
GDP	Gross domestic product
ISIC	International Standard Industrial Classification
SIC	Standard Industrial Classification of all Economic Activities
SARS	South African Revenue Service
Stats SA	Statistics South Africa
VAT	Value added tax

**Wholesale trade** Wholesale trade includes the resale (sale without transformation) of new and used goods and products to other wholesalers, retailers, agricultural, industrial, commercial, institutional and professional users either directly or through agents on a fee or contract basis.

**Wholesaler** A wholesaler is an enterprise deriving 50% or more of its turnover from sales of goods to other businesses and institutions.

## Technical enquiries

**Nthabiseng Sebeyi** Telephone number: (012) 310 8930  
Email: nthabisengs@statssa.gov.za

**Keshnee Govender** Telephone number: (012) 310 8423  
Email: keshneeg@statssa.gov.za

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## General enquiries

User information services	Telephone number: (012) 310 8600 Email address: <a href="mailto:info@statssa.gov.za">info@statssa.gov.za</a>
Orders/subscription services	Telephone number: (012) 310 8358 Email address: <a href="mailto:magdaj@statssa.gov.za">magdaj@statssa.gov.za</a>
Postal address	Private Bag X44, Pretoria, 0001

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