# Wholesale trade sales (Preliminary)

## June 2016

The results published in the next publication (July 2016) will be based on a new sample. This is an annual procedure which typically affects the level of sales at both current and constant prices. To avoid breaks in time series and to minimise revisions to historical growth rates, historical sales levels will be revised (i.e. they will be linked to the estimates based on the new sample).

**Embargoed until:**
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|---|---|
| July 2016 | 15 September 2016 |

# Contents

## Sales at constant 2012 prices: results for June 2016

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

|  | Jan-16 | Feb-16 | Mar-16 | Apr-16 | May-16 | Jun-16 |
|---|---|---|---|---|---|---|
| Year-on-year % change, unadjusted | -4,8 | 1,2 | -2,0 | 5,9 | 6,1 | 2,6 |
| Month-on-month % change, seasonally adjusted | -1,3 | 3,0 | 1,2 | -1,5 | 3,0 | -1,4 |
| 3-month % change, seasonally adjusted  1/ | -1,3 | -0,6 | 0,7 | 2,5 | 2,7 | 1,8 |

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 increased by 2,6% in June 2016 compared with June 2015. Seasonally adjusted wholesale trade sales decreased by 1,4% in June 2016 compared with May 2016. This followed month-on-month changes of 3,0% in May 2016 and -1,5% in April 2016.

In the second quarter of 2016, seasonally adjusted wholesale trade sales increased by 1,8% compared with the previous quarter.

**Figure 1 – Wholesale trade sales at constant 2012 prices**
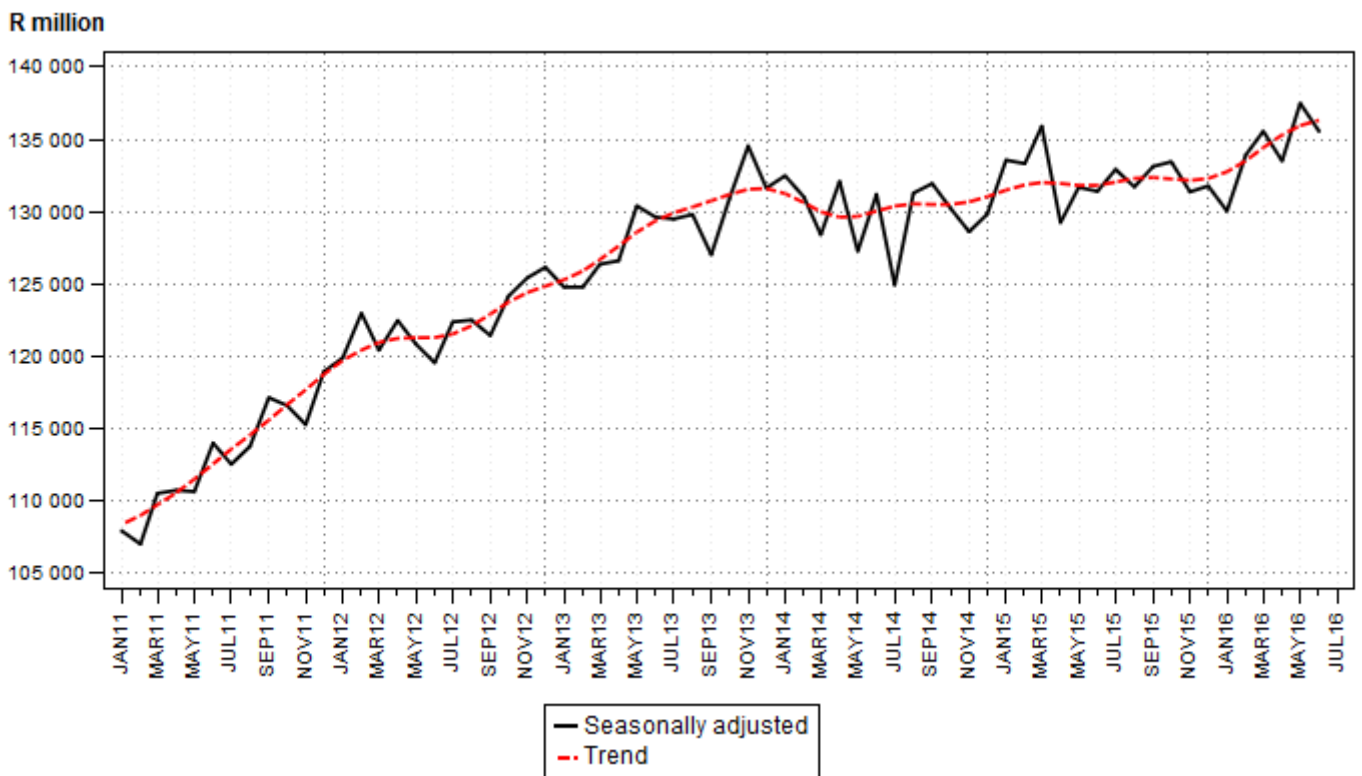
## Sales at current prices: results for June 2016

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

|  | Jan-16 | Feb-16 | Mar-16 | Apr-16 | May-16 | Jun-16 |
|---|---|---|---|---|---|---|
| Year-on-year % change, unadjusted | 4,9 | 11,6 | 5,0 | 13,2 | 13,0 | 9,6 |
| Month-on-month % change, seasonally adjusted | 1,6 | 2,2 | 1,0 | 0,8 | 2,0 | -0,1 |
| 3-month % change, seasonally adjusted  1/ | 1,2 | 1,8 | 3,3 | 4,4 | 4,2 | 3,4 |

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 9,6% in June 2016 compared with June 2015. The main contributors to this increase were dealers in:

- agricultural raw materials and livestock (78,3% and contributing 5,4 percentage points); and
- machinery, equipment and supplies (19,0% and contributing 3,2 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 | Apr – Jun 2015 (R million) | Weight | Apr – Jun 2016 (R million) | % change between Apr – Jun 2015 and Apr – Jun 2016 | Contribution (% points) to the total % change |
|---|---|---|---|---|---|
| Fee or contract basis | 18 128 | 4,2 | 21 087 | 16,3 | 0,7 |
| Agricultural raw materials and livestock | 28 352 | 6,6 | 49 614 | 75,0 | 5,0 |
| Food, beverages and tobacco | 66 497 | 15,5 | 72 277 | 8,7 | 1,3 |
| Textiles, clothing and footwear | 9 064 | 2,1 | 7 954 | -12,2 | -0,3 |
| Other household goods except precious stones | 45 818 | 10,7 | 46 812 | 2,2 | 0,2 |
| Precious stones, jewellery and silverware | 7 368 | 1,7 | 11 745 | 59,4 | 1,0 |
| Solid, liquid and gaseous fuels and related products | 86 326 | 20,2 | 78 424 | -9,2 | -1,9 |
| Metals and metal ores | 11 266 | 2,6 | 11 180 | -0,8 | 0,0 |
| Construction and building materials | 26 539 | 6,2 | 30 420 | 14,6 | 0,9 |
| Other intermediate products, waste and scrap | 18 574 | 4,3 | 20 184 | 8,7 | 0,4 |
| Machinery, equipment and supplies | 71 992 | 16,8 | 87 276 | 21,2 | 3,6 |
| Other goods | 38 290 | 8,9 | 42 111 | 10,0 | 0,9 |
| **Total** | **428 221** | **100,0** | **479 087** | **11,9** | **11,9** |

Wholesale trade sales increased by 11,9% in the second quarter of 2016 compared with the second quarter of 2015. The main contributors to this increase were dealers in:

- agricultural raw materials and livestock (75,0% and contributing 5,0 percentage points); and
- machinery, equipment and supplies (21,2% and contributing 3,6 percentage points) – see Table C.

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

## Tables

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

| Month | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 1/ |
|-------|------|------|------|------|------|------|---------|
| Jan | 88 524 | 94 094 | 106 568 | 113 092 | 120 344 | 119 564 | 113 863 |
| Feb | 98 512 | 102 202 | 118 340 | 120 507 | 127 071 | 129 804 | 131 402 |
| Mar | 107 967 | 114 218 | 122 788 | 121 288 | 128 118 | 138 224 | 135 498 |
| Apr | 98 346 | 102 391 | 111 941 | 122 643 | 122 043 | 118 666 | 125 696 |
| May | 104 260 | 109 579 | 121 729 | 131 449 | 126 591 | 128 298 | 136 160 |
| Jun | 105 735 | 113 981 | 118 288 | 124 930 | 128 609 | 131 850 | 135 326 |
| Jul | 106 170 | 109 586 | 120 888 | 130 506 | 125 664 | 133 866 | |
| Aug | 108 129 | 116 969 | 125 758 | 131 364 | 129 984 | 130 271 | |
| Sep | 110 304 | 120 599 | 120 306 | 128 243 | 136 587 | 137 595 | |
| Oct | 110 068 | 121 816 | 134 957 | 142 356 | 142 236 | 143 881 | |
| Nov | 122 131 | 129 740 | 141 302 | 148 997 | 138 629 | 143 791 | |
| Dec | 113 501 | 121 061 | 125 140 | 132 404 | 132 823 | 134 219 | |
| **Total** | **1 273 647** | **1 356 236** | **1 468 005** | **1 547 779** | **1 558 699** | **1 590 029** | |

1/ Figures for latest month are preliminary.

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

| Month | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | *2016 year-to-date* |
|-------|------|------|------|------|------|------|---------------------|
| Jan | 6,3 | 13,3 | 6,1 | 6,4 | -0,6 | -4,8 | *-4,8* |
| Feb | 3,7 | 15,8 | 1,8 | 5,4 | 2,2 | 1,2 | *-1,6* |
| Mar | 5,8 | 7,5 | -1,2 | 5,6 | 7,9 | -2,0 | *-1,8* |
| Apr | 4,1 | 9,3 | 9,6 | -0,5 | -2,8 | 5,9 | *0,0* |
| May | 5,1 | 11,1 | 8,0 | -3,7 | 1,3 | 6,1 | *1,3* |
| Jun | 7,8 | 3,8 | 5,6 | 2,9 | 2,5 | 2,6 | *1,5* |
| Jul | 3,2 | 10,3 | 8,0 | -3,7 | 6,5 | | |
| Aug | 8,2 | 7,5 | 4,5 | -1,1 | 0,2 | | |
| Sep | 9,3 | -0,2 | 6,6 | 6,5 | 0,7 | | |
| Oct | 10,7 | 10,8 | 5,5 | -0,1 | 1,2 | | |
| Nov | 6,2 | 8,9 | 5,4 | -7,0 | 3,7 | | |
| Dec | 6,7 | 3,4 | 5,8 | 0,3 | 1,1 | | |
| **Total** | **6,5** | **8,2** | **5,4** | **0,7** | **2,0** | | |

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

| Month | R million | | | | Month-on-month % change | | | |
|-------|------|------|------|------|------|------|------|------|
| | 2013 | 2014 | 2015 | 2016 | 2013 | 2014 | 2015 | 2016 |
| Jan | 124 788 | 132 486 | 133 567 | 130 046 | -1,1 | 0,6 | 2,9 | -1,3 |
| Feb | 124 796 | 131 019 | 133 323 | 133 918 | 0,0 | -1,1 | -0,2 | 3,0 |
| Mar | 126 372 | 128 415 | 135 903 | 135 561 | 1,3 | -2,0 | 1,9 | 1,2 |
| Apr | 126 616 | 132 097 | 129 252 | 133 509 | 0,2 | 2,9 | -4,9 | -1,5 |
| May | 130 402 | 127 268 | 131 685 | 137 489 | 3,0 | -3,7 | 1,9 | 3,0 |
| Jun | 129 626 | 131 199 | 131 411 | 135 563 | -0,6 | 3,1 | -0,2 | -1,4 |
| Jul | 129 498 | 124 935 | 132 921 | | -0,1 | -4,8 | 1,1 | |
| Aug | 129 809 | 131 287 | 131 714 | | 0,2 | 5,1 | -0,9 | |
| Sep | 127 028 | 131 943 | 133 128 | | -2,1 | 0,5 | 1,1 | |
| Oct | 130 908 | 130 252 | 133 450 | | 3,1 | -1,3 | 0,2 | |
| Nov | 134 545 | 128 622 | 131 373 | | 2,8 | -1,3 | -1,6 | |
| Dec | 131 635 | 129 834 | 131 780 | | -2,2 | 0,9 | 0,3 | |

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

| Month | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 1/ |
|---|---|---|---|---|---|---|---|
| Jan | 77 589 | 85 948 | 103 292 | 116 632 | 133 522 | 127 620 | 133 838 |
| Feb | 86 596 | 94 852 | 115 774 | 124 847 | 142 659 | 139 647 | 155 790 |
| Mar | 95 310 | 107 096 | 120 911 | 127 144 | 145 530 | 152 965 | 160 578 |
| Apr | 87 788 | 96 106 | 111 049 | 127 981 | 138 823 | 133 460 | 151 083 |
| May | 93 088 | 103 141 | 121 607 | 136 818 | 143 873 | 144 543 | 163 332 |
| Jun | 94 969 | 107 623 | 117 532 | 131 084 | 146 195 | 150 218 | 164 672 |
| Jul | 94 932 | 104 536 | 119 748 | 137 867 | 143 083 | 152 465 | |
| Aug | 96 985 | 112 762 | 125 792 | 140 395 | 147 934 | 148 102 | |
| Sep | 98 529 | 117 473 | 121 149 | 137 742 | 155 718 | 156 184 | |
| Oct | 98 340 | 119 040 | 137 457 | 153 685 | 161 539 | 166 150 | |
| Nov | 109 892 | 127 243 | 145 178 | 161 370 | 156 115 | 166 360 | |
| Dec | 102 439 | 118 659 | 128 515 | 144 700 | 147 484 | 154 814 | |
| **Total** | **1 136 457** | **1 294 479** | **1 468 004** | **1 640 265** | **1 762 475** | **1 792 528** | |

1/ Figures for latest month are preliminary.

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

| Month | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | *2016 year-to-date* |
|---|---|---|---|---|---|---|---|
| Jan | 10,8 | 20,2 | 12,9 | 14,5 | -4,4 | 4,9 | *4,9* |
| Feb | 9,5 | 22,1 | 7,8 | 14,3 | -2,1 | 11,6 | *8,4* |
| Mar | 12,4 | 12,9 | 5,2 | 14,5 | 5,1 | 5,0 | *7,1* |
| Apr | 9,5 | 15,5 | 15,2 | 8,5 | -3,9 | 13,2 | *8,6* |
| May | 10,8 | 17,9 | 12,5 | 5,2 | 0,5 | 13,0 | *9,5* |
| Jun | 13,3 | 9,2 | 11,5 | 11,5 | 2,8 | 9,6 | *9,5* |
| Jul | 10,1 | 14,6 | 15,1 | 3,8 | 6,6 | | |
| Aug | 16,3 | 11,6 | 11,6 | 5,4 | 0,1 | | |
| Sep | 19,2 | 3,1 | 13,7 | 13,1 | 0,3 | | |
| Oct | 21,0 | 15,5 | 11,8 | 5,1 | 2,9 | | |
| Nov | 15,8 | 14,1 | 11,2 | -3,3 | 6,6 | | |
| Dec | 15,8 | 8,3 | 12,6 | 1,9 | 5,0 | | |
| **Total** | **13,9** | **13,4** | **11,7** | **7,5** | **1,7** | | |

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

| Month | R million | | | | Month-on-month % change | | | |
|---|---|---|---|---|---|---|---|---|
| | 2013 | 2014 | 2015 | 2016 | 2013 | 2014 | 2015 | 2016 |
| Jan | 130 453 | 149 197 | 144 195 | 154 834 | 1,2 | 3,7 | -0,6 | 1,6 |
| Feb | 130 742 | 148 937 | 145 366 | 158 175 | 0,2 | -0,2 | 0,8 | 2,2 |
| Mar | 129 828 | 143 347 | 149 966 | 159 714 | -0,7 | -3,8 | 3,2 | 1,0 |
| Apr | 132 998 | 150 635 | 143 847 | 160 932 | 2,4 | 5,1 | -4,1 | 0,8 |
| May | 135 988 | 144 011 | 147 086 | 164 127 | 2,2 | -4,4 | 2,3 | 2,0 |
| Jun | 134 605 | 147 576 | 149 367 | 163 903 | -1,0 | 2,5 | 1,6 | -0,1 |
| Jul | 138 672 | 143 885 | 152 525 | | 3,0 | -2,5 | 2,1 | |
| Aug | 137 875 | 147 813 | 147 825 | | -0,6 | 2,7 | -3,1 | |
| Sep | 135 474 | 150 563 | 151 917 | | -1,7 | 1,9 | 2,8 | |
| Oct | 141 643 | 148 096 | 153 664 | | 4,6 | -1,6 | 1,1 | |
| Nov | 146 476 | 144 102 | 151 567 | | 3,4 | -2,7 | -1,4 | |
| Dec | 143 808 | 145 013 | 152 433 | | -1,8 | 0,6 | 0,6 | |

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

| Type of dealer | Jan-16 | Feb-16 | Mar-16 | Apr-16 | May-16 | Jun-16 1/ |
|---|---|---|---|---|---|---|
| Fee or contract basis | 4 396 | 7 005 | 5 362 | 6 137 | 7 499 | 7 451 |
| Agricultural raw materials and livestock | 11 903 | 13 662 | 14 579 | 14 704 | 16 319 | 18 591 |
| Food, beverages and tobacco | 19 932 | 23 954 | 27 453 | 22 258 | 24 829 | 25 190 |
| Textiles, clothing and footwear | 2 547 | 2 876 | 3 505 | 3 261 | 2 344 | 2 349 |
| Other household goods except precious stones | 13 590 | 15 997 | 15 958 | 15 260 | 16 028 | 15 524 |
| Precious stones, jewellery and silverware | 2 201 | 3 744 | 3 820 | 5 729 | 3 316 | 2 700 |
| Solid, liquid and gaseous fuels and related products | 22 291 | 24 355 | 25 195 | 23 867 | 27 712 | 26 845 |
| Metals and metal ores | 2 876 | 3 499 | 3 577 | 3 593 | 3 875 | 3 712 |
| Construction and building materials | 7 030 | 9 925 | 9 741 | 10 179 | 10 129 | 10 112 |
| Other intermediate products, waste and scrap | 6 461 | 7 142 | 6 801 | 6 739 | 6 790 | 6 655 |
| Machinery, equipment and supplies | 27 117 | 28 507 | 30 572 | 26 324 | 30 410 | 30 542 |
| Other goods | 13 493 | 15 125 | 14 015 | 13 030 | 14 080 | 15 001 |
| **Total** | **133 838** | **155 790** | **160 578** | **151 083** | **163 332** | **164 672** |

1/ Figures are preliminary.

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

| Type of dealer | Jan-16 | Feb-16 | Mar-16 | Apr-16 | May-16 | Jun-16 |
|---|---|---|---|---|---|---|
| Fee or contract basis | -3,0 | 31,0 | 6,0 | 12,6 | 18,6 | 17,2 |
| Agricultural raw materials and livestock | 41,7 | 39,7 | 57,4 | 84,3 | 64,1 | 78,3 |
| Food, beverages and tobacco | 6,6 | 10,2 | 9,3 | 7,8 | 8,5 | 9,7 |
| Textiles, clothing and footwear | 20,4 | 0,2 | -2,0 | 0,2 | -23,4 | -14,5 |
| Other household goods except precious stones | 2,5 | 15,3 | -3,3 | 3,4 | 7,5 | -3,9 |
| Precious stones, jewellery and silverware | -0,2 | 35,8 | 58,2 | 172,3 | 55,1 | -13,6 |
| Solid, liquid and gaseous fuels and related products | -13,6 | -3,8 | -13,2 | -7,3 | -8,7 | -11,2 |
| Metals and metal ores | -14,9 | -15,6 | -11,4 | 1,9 | 4,8 | -8,1 |
| Construction and building materials | 1,5 | 13,1 | 0,7 | 21,7 | 15,7 | 7,4 |
| Other intermediate products, waste and scrap | 0,8 | 9,2 | 7,8 | 14,7 | 17,1 | -3,6 |
| Machinery, equipment and supplies | 24,6 | 22,3 | 7,4 | 13,8 | 31,1 | 19,0 |
| Other goods | -4,4 | -0,5 | 3,9 | 3,2 | 4,4 | 23,2 |
| **Total** | **4,9** | **11,6** | **5,0** | **13,2** | **13,0** | **9,6** |

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

| Type of dealer | Jan-16 | Feb-16 | Mar-16 | Apr-16 | May-16 | Jun-16 |
|---|---|---|---|---|---|---|
| Fee or contract basis | -0,1 | 1,2 | 0,2 | 0,5 | 0,8 | 0,7 |
| Agricultural raw materials and livestock | 2,8 | 2,8 | 3,5 | 5,1 | 4,4 | 5,4 |
| Food, beverages and tobacco | 1,0 | 1,6 | 1,5 | 1,2 | 1,3 | 1,5 |
| Textiles, clothing and footwear | 0,3 | 0,0 | 0,0 | 0,0 | -0,5 | -0,3 |
| Other household goods except precious stones | 0,3 | 1,5 | -0,4 | 0,4 | 0,8 | -0,4 |
| Precious stones, jewellery and silverware | 0,0 | 0,7 | 0,9 | 2,8 | 0,8 | -0,3 |
| Solid, liquid and gaseous fuels and related products | -2,7 | -0,7 | -2,5 | -1,4 | -1,8 | -2,3 |
| Metals and metal ores | -0,4 | -0,5 | -0,3 | 0,0 | 0,1 | -0,2 |
| Construction and building materials | 0,1 | 0,8 | 0,0 | 1,4 | 1,0 | 0,5 |
| Other intermediate products, waste and scrap | 0,0 | 0,4 | 0,3 | 0,6 | 0,7 | -0,2 |
| Machinery, equipment and supplies | 4,2 | 3,7 | 1,4 | 2,4 | 5,0 | 3,2 |
| Other goods | -0,5 | -0,1 | 0,3 | 0,3 | 0,4 | 1,9 |
| **Total** | **4,9** | **11,6** | **5,0** | **13,2** | **13,0** | **9,6** |

## 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 2015 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 June 2016 was 85,1%. The improved collection rate for May 2016 was 89,3%. |

| **Statistical unit** | **7** | 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. |
|---|---|---|
| **Revised figures** | **8** | 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. |
| **Related publications** | **9** | Users may also refer to the following publication available from Stats SA: |
| | | • *Stats in Brief* issued annually. |
| **Rounding-off of figures** | **10** | Where figures have been rounded off, discrepancies may occur between sums of the component items and the totals. |
| **Historical data** | **11** | Historical wholesale trade sales data are available on the Stats SA website. To access the data electronically, use the following link: http://www.statssa.gov.za/?page_id=1849 |
| **Past publications** | **12** | Past wholesale trade sales releases are available on the Stats SA website. To access the releases electronically, use the following link: http://www.statssa.gov.za/?page_id=1866&PPN=P6141.2&SCH=5717 |

## Technical notes

| | | |
|---|---|---|
| **Survey methodology and design** | **1** | The survey is conducted monthly. Questionnaires are sent to a sample of 1 183 enterprises from a population of 18 800 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 2015 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:

$$nh = n * ( Nh * Sh ) / [ \Sigma ( Ni * Si ) ].$$

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 was 6,0%.

| | | |
|---|---|---|
| **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 | 2 076 368 | 27 000 000 |
| Small | 3 | 27 000 001 | 128 000 000 |
| Medium | 2 | 144 000 001 | 288 000 000 |
| Large | 1 | 288 000 001 | |

| | | |
|---|---|---|
| **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. |
| **Seasonal adjustment** | **5** | Seasonally adjusted estimates are generated each month using the X-12-ARIMA Seasonal Adjustment Program developed by the US Bureau of the Census. 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. Therefore, the month-to-month movements of seasonally adjusted estimates may not be reliable indicators of trend behaviour. The X-12-ARIMA procedure for wholesale trade sales is described in more detail on the Stats SA website: Click to Download Seasonal_adjustment_Wholesale_Trade_Sales_July_2015 |

| **Trend cycle** | 6 | The trend is the long-term pattern or movement of a time series. The X-12-ARIMA Seasonal Adjustment Program is used for smoothing seasonally adjusted estimates to estimates of the underlying trend cycle. |

**Constant prices**     7     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.

From January 2012, wholesale trade sales at constant prices are compiled as follows:
(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 sales of dealers in textiles, clothing and footwear using the final manufacturing PPI for textiles, clothing and footwear.
(4) Deflate sales of dealers in solid, liquid and gaseous fuels and related products using the final manufacturing PPI for coal and petroleum products.
(5) Deflate sales of dealers in machinery, equipment and supplies using the final manufacturing PPIs for general and special purpose machinery; household appliances and office machinery; and electrical machinery and apparatus and subcomponents.
(6) Deflate the remaining wholesale trade sales using the headline PPI (final manufacturing) excluding the PPIs for food products, beverages and tobacco; textiles, clothing and footwear; coal and petroleum products; general and special purpose machinery; household appliances and office machinery; electrical machinery and apparatus and subcomponents; and transport equipment. The PPI for transport equipment is excluded because it measures producer prices of motor vehicles, which are not included in wholesale trade.

Total wholesale trade sales at constant prices is obtained by aggregating (1) to (6).

**Reliability of estimates**     8     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.

    9     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.

**Month-on-month percentage change**     10     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.

**Year-on-year percentage change**     11     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.

**Contribution (percentage points)**     12     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* (SIC)*,* Fifth Edition, Report No, 09-90-02 of January 1993.

**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.

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