

Retail Trade

Quarterly analysis of activity in retail, wholesale
and motor trade

First quarter 2020

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Executive summary

Retailers' performance worsened further.

The volume of retail sales weakened once more in 20Q1.

Retailers kept price increases to the minimum.

As a result, the growth in turnover remained subdued.

The dismal volume growth could be attributed to households' dire financial situation.

Fiercer competition among retailers hurt profitability as costs are fixed in the short run.

All Q4 gains in confidence were reversed.

Wholesalers continued to take strain in 20Q1.

The volume of sales shrank at an even faster pace compared to 19Q4.

As a result, confidence declined further.

Difficult times persisted in the **motor trade**.

Confidence remained stable at a low level as new vehicle sales contracted at the same fast pace.

This report was completed on 13 March 2020.

Please refer to the [glossary on the BER's website](#) for explanations of technical terms.

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Summary of the 2020Q1 trade sector survey results

Retailers' performance worsened further

According to the latest Stats SA data, the growth in the **volume of retail sales** remained weak in the fourth quarter of 2019 (see Table 1). The crucial Black Friday and Christmas shopping periods did not deliver on retailers' earlier expectations, namely that they would bring relief and make up for the underperformance earlier in the year.

Table 1: Year-on-year percentage change in retail sales volumes

	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3	2019Q4
Non-durable goods ¹	0.5%	-0.1%	0.9%	2.1%	0.2%	1.3%
Semi-durable goods ²	3.3%	1.5%	1.7%	3.4%	2.3%	0.5%
Durable goods ³	-0.1%	1.3%	-1.1%	1.3%	0.6%	-0.2%
Total ⁴	1.4%	0.8%	0.7%	2.2%	1.1%	0.8%

Source: Statistics South Africa, Retail Sales Statistics

¹ Non-durable goods retailers include general dealers, retailers in specialised food, beverages and tobacco, and retailers in pharmaceutical and medical goods, cosmetics and toiletries

² Durable goods retailers include retailers in household furniture, appliances and equipment, and retailers in hardware, paint and glass

³ Semi-durable goods retailers include retailers in textiles, clothing, footwear and leather goods

⁴ Excluding "other".

The volume of retail sales weakened further in 20Q1

The BER's survey¹ shows that the volume of retail sales weakened further in the first quarter of 2020. This was led by non-durable goods, as well as hardware and building materials. Furniture, appliances and electronic equipment remained poor, but did not deteriorate further compared to the fourth quarter. The only category to post an improvement was semi-durable goods.

Retailers kept price increases to the minimum

In the first quarter, retailers in general and semi-durable goods dealers in particular kept price increases to the minimum in the hope that "good deals", discounts and other offers would attract more shoppers and lift sales volumes. The prices of furniture, appliances and electronic equipment, on average, kept on contracting.

As a result, the growth in turnover remained subdued

The weak growth in sales volumes and the curbing of price increases continued to subdue the growth in turnover. Staff, rental, security, electricity and other costs, on the other hand, continued to escalate. As a result, profitability came under severe pressure after all the easy cost-cutting options had been exhausted.

¹ The fieldwork for the 2020Q1 survey was conducted between 12 February and 2 March 2020.

The dismal volume growth could be attributed to households' dire financial situation

The dismal volume growth could be attributed to households' dire financial situation. Retrenchments, private-sector wage increases barely matching inflation, as well as cuts of bonuses, overtime and commission, limited the growth in household income. Although the interest rate cut in January and petrol price declines in the first quarter brought welcome relief to households with mortgages and cars, most households have to juggle to match limited income with expanding non-discretionary obligations, such as school fees, higher electricity bills, support to relatives and debt service requirements. High-income earners, the only group with more scope to spend, in turn, lack confidence (see the first section) and, therefore, refrain to a greater degree than previously from spending on discretionary goods and postpone upgrading durable goods or incurring big expenses on their properties.

Fiercer competition hurt profitability as costs are fixed

Retailers face an uphill battle when the growth in the size of the available spending "cake" becomes as low as is the case currently. The resultant fiercer price competition for customers and protection of market share come at the expense of profitability when costs cannot be cut further.

All Q4 gains in confidence reversed

Given the first quarter's disappointing further deterioration in sales and profitability and grim outlook, it is unsurprising that almost all of the fourth-quarter gains in confidence were reversed in the first quarter. Retailer confidence fell by a significant 12 points from 30 to 18, a meagre one point above the third quarter's 21-year low.

Wholesalers continued to take strain

According to the most recent information from Stats SA, the volume of wholesale sales kept on contracting year-on-year at more than 1% during the fourth quarter of 2019. As the BER's 19Q4 survey foreshadowed, the sales of agricultural raw materials and other household goods (i.e. consumer goods) picked up, but those of building materials and machinery (i.e. non-consumer goods) contracted.

Volume of sales shrank at an even faster pace

The BER's survey indicated that the total volume of sales shrank at an even faster pace in the first quarter of 2020 compared to the fourth quarter of 2019. The rate of contraction in the volume of sales of non-consumer goods eased somewhat, but that of consumer goods increased.

The rate of increase in selling prices remained relatively subdued.

Confidence declined further

Given another fall-off in sales volumes, lack of pricing power and grim outlook, it is no wonder that wholesaler confidence remained low. After dropping from over

40 during the first half of 2019 to 28 during the second half of 2019, wholesaler confidence declined further to 25 in the first quarter.

Confidence
remained stable
at a low level

Difficult times persisted in the motor trade

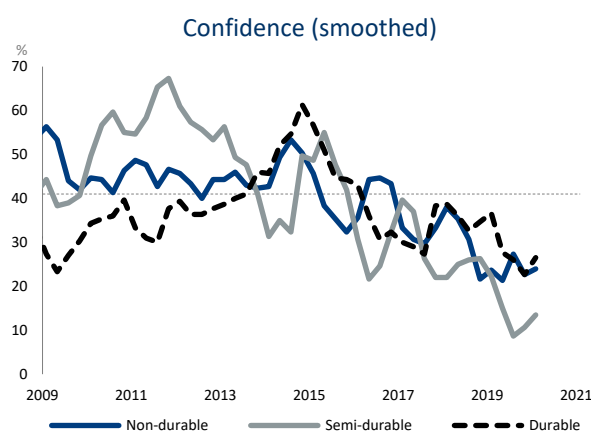
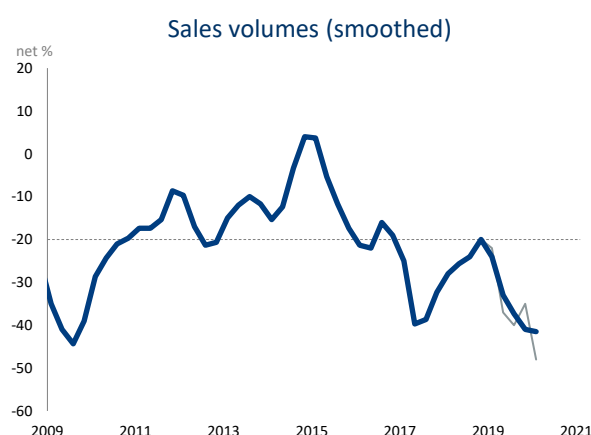
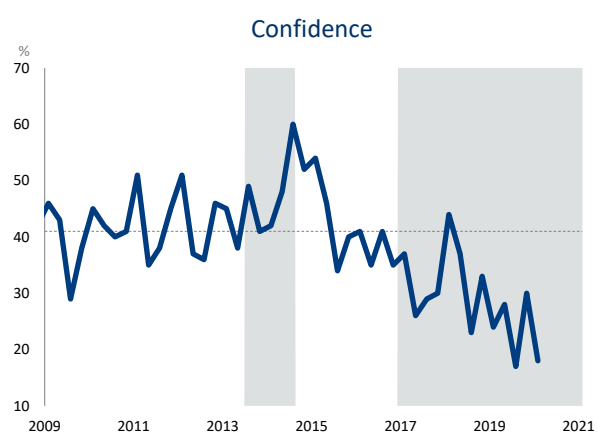
Dealer confidence remained stable at a low level of 16 as new vehicle sales contracted at the same fast pace relative to the fourth quarter.

After performing somewhat less poorly in the fourth quarter, used vehicle sales were knocked down once more in the first quarter.

Survey results

Retail trade: total²

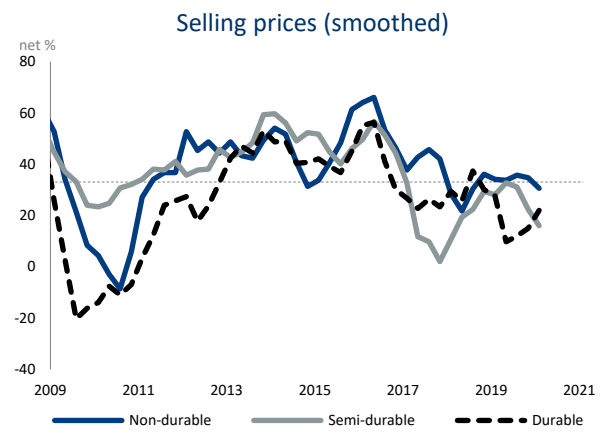
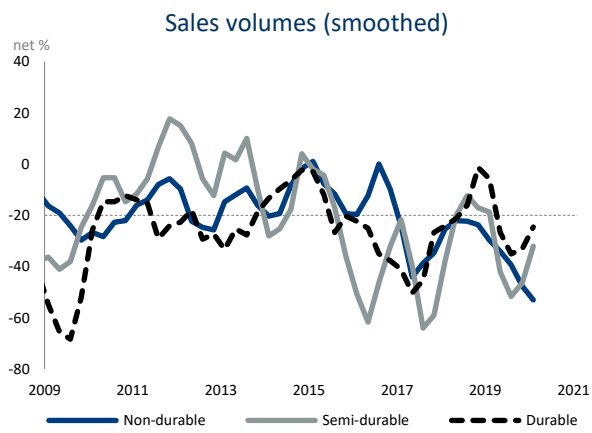
Indicator	Unit	$\mu-\sigma$	μ	$\mu+\sigma$	18Q2	18Q3	18Q4	19Q1	19Q2	19Q3	19Q4	20Q1	Δ	σ_{Δ}
Confidence	%	29	39	48	37	23	33	24	28	17	30	18	-12	8
Business conditions	Net %	-47	-32	-17	-33	-52	-44	-33	-42	-62	-44	-62	-18	14
Sales volumes	Net %	-36	-22	-8	-34	-25	-13	-22	-37	-40	-35	-48	-13	12
Seasonally adjusted	Net %	-36	-22	-8	-28	-20	-20	-26	-31	-35	-42	-52	-10	10
Smoothed	Net %	-34	-22	-10	-26	-24	-20	-24	-33	-37	-41	-42	-1	5
Selling prices	Net %	14	32	50	22	28	46	26	22	29	32	22	-10	15



² The "retail trade total" consists of the "retail trade durables", the "retail trade semi-durables" and the "retail trade non-durables" goods sectors. The BER does not cover the retail trade in second hand goods in stores (SIC code 624), the retail trade not in stores (625) and the repair of personal and household goods (626).

μ – average
 σ – standard deviation
 Δ – change from previous period
 σ_{Δ} – volatility (standard deviation of the changes)
 All of the above calculated over the last 20 years
 See Technical note for further details

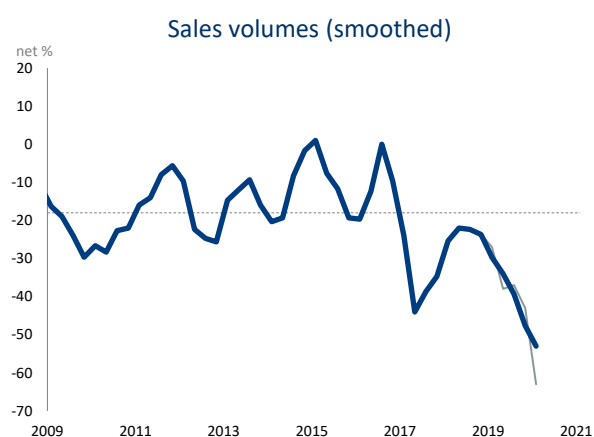
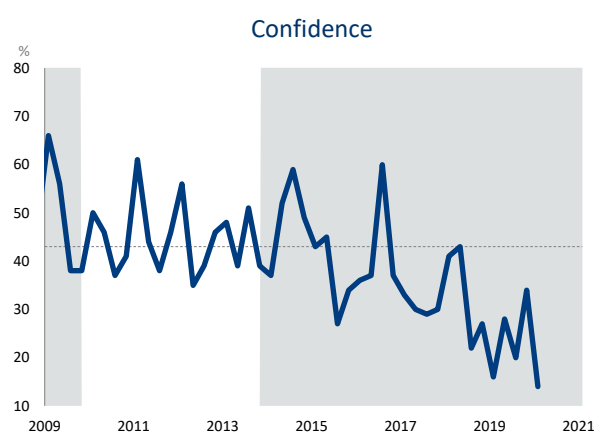
Retail trade: total



μ – average
 σ – standard deviation
 Δ – change from previous period
 σ_{Δ} – volatility (standard deviation of the changes)
 All of the above calculated over the last 20 years
 See Technical note for further details

Retail trade: non-durables³

Indicator	Unit	$\mu-\sigma$	μ	$\mu+\sigma$	18Q2	18Q3	18Q4	19Q1	19Q2	19Q3	19Q4	20Q1	Δ	σ_{Δ}
Confidence	%	28	40	52	43	22	27	16	28	20	34	14	-20	12
Business conditions	Net %	-51	-33	-16	-32	-61	-57	-37	-37	-60	-43	-73	-30	19
Sales volumes	Net %	-36	-21	-5	-23	-20	-24	-27	-38	-37	-43	-63	-20	14
Seasonally adjusted	Net %	-36	-21	-6	-17	-21	-30	-26	-32	-38	-49	-62	-13	12
Smoothed	Net %	-33	-21	-9	-22	-22	-24	-30	-34	-39	-48	-53	-5	7
Selling prices	Net %	16	37	57	20	27	44	37	21	43	43	18	-25	20

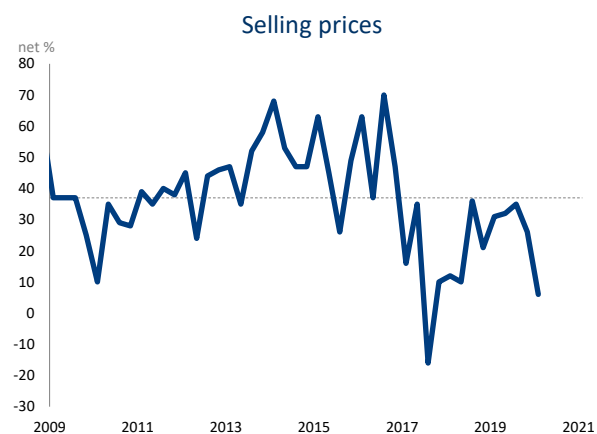
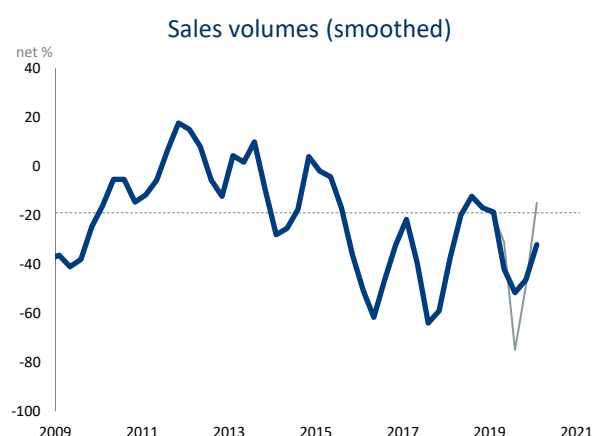
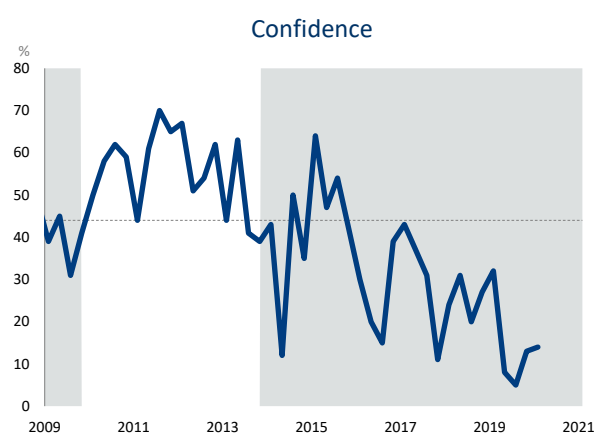


³ Food, inedible groceries, tobacco (SIC code 621), beverages (622), pharmaceutical & medical goods, cosmetic & toiletry articles (6231), reading matter, stationery, office supplies (62391), other non-durable goods (62399)

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 All of the above calculated over the last 20 years
 See Technical note for further details

Retail trade: semi-durables⁴

Indicator	Unit	$\mu-\sigma$	μ	$\mu+\sigma$	18Q2	18Q3	18Q4	19Q1	19Q2	19Q3	19Q4	20Q1	Δ	σ_{Δ}
Confidence	%	22	40	58	31	20	27	32	8	5	13	14	1	14
Business conditions	Net %	-64	-38	-12	-23	-38	-40	-67	-61	-75	-73	-49	24	27
Sales volumes	Net %	-49	-21	7	-6	-26	-5	-20	-31	-75	-49	-15	34	30
Smoothed	Net %	-42	-21	0	-20	-12	-17	-19	-42	-52	-46	-32	14	12
Selling prices	Net %	19	36	53	10	36	21	31	32	35	26	6	-20	17

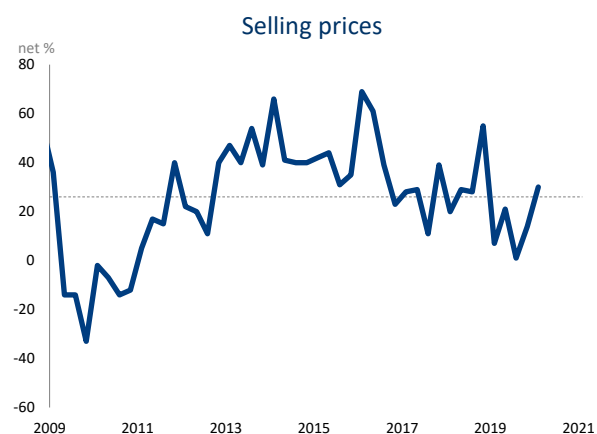
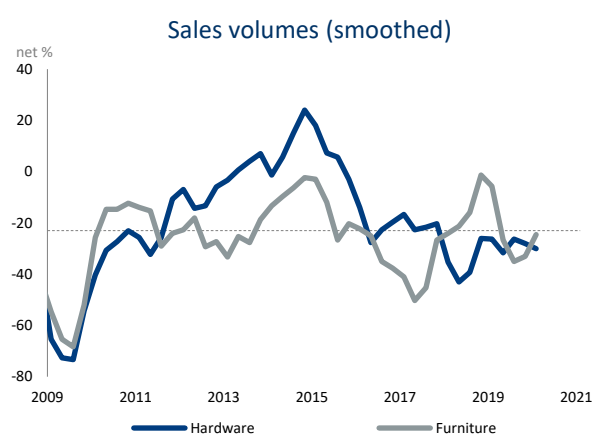
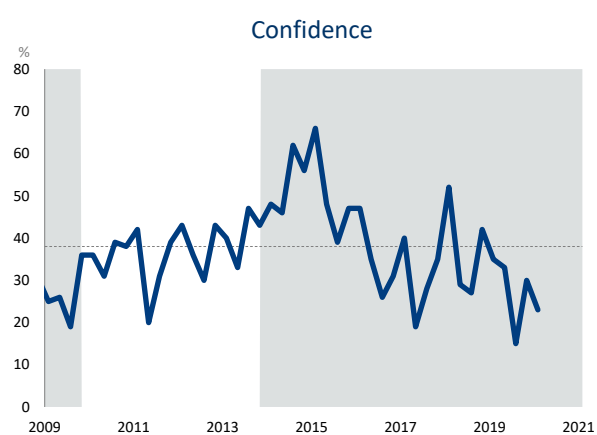


⁴ Textiles, clothing, footwear & leather goods (SIC code 6232), sports goods & entertainment requisites (62393), other semi-durable goods (62399)

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 σ – standard deviation
 Δ – change from previous period
 σ_{Δ} – volatility (standard deviation of the changes)
 All of the above calculated over the last 20 years
 See Technical note for further details

Retail trade: durables⁵

Indicator	Unit	$\mu-\sigma$	μ	$\mu+\sigma$	18Q2	18Q3	18Q4	19Q1	19Q2	19Q3	19Q4	20Q1	Δ	σ_{Δ}
Confidence	%	26	37	48	29	27	42	35	33	15	30	23	-7	11
Business conditions	Net %	-49	-30	-10	-38	-44	-28	-19	-44	-63	-38	-53	-15	18
Sales volumes														
Total	Net %	-44	-23	-3	-55	-30	1	-14	-39	-36	-18	-39	-21	18
Hardware	Net %	-46	-20	6	-67	-43	-8	-27	-44	-24	-11	-49	-38	22
Furniture	Net %	-47	-26	-5	-42	-19	13	2	-32	-50	-23	-26	-3	22
Selling prices	Net %	2	25	48	29	28	55	7	21	1	14	30	16	19

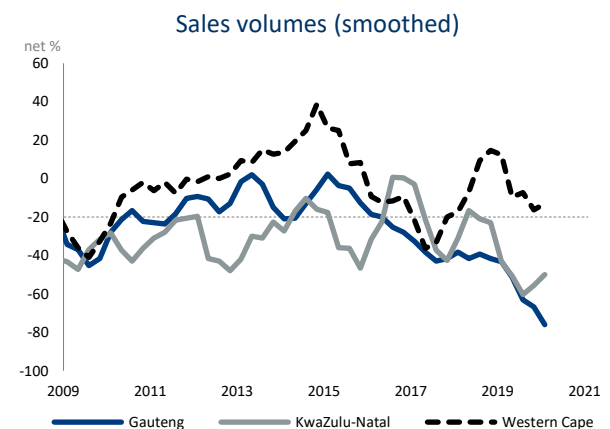
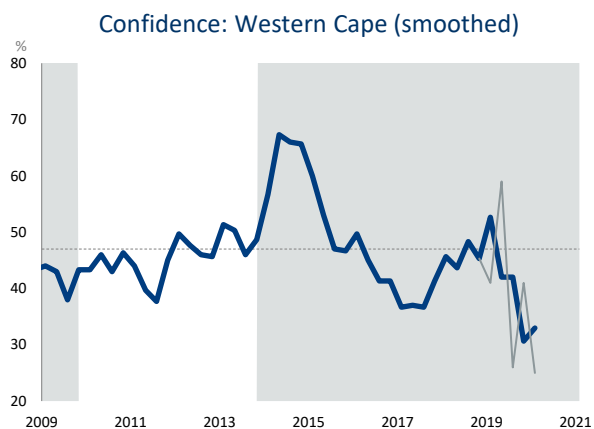
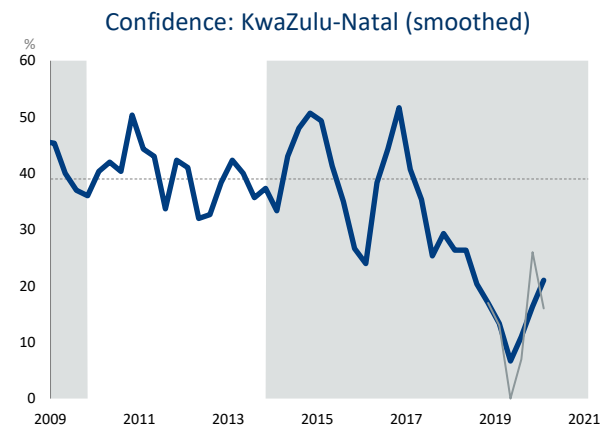
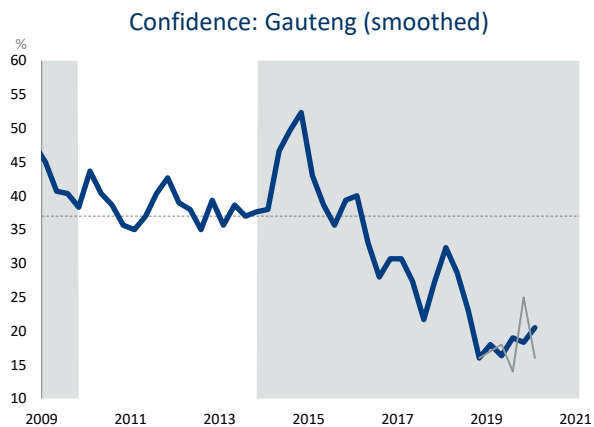


⁵ "Retail trade durables" consists of "hardware" and "furniture". "Hardware" includes hardware, paint and glass (SIC code 6234). "Furniture" consists of household furniture, appliances, articles and equipment (6233), jewellery and related items (62392) and other durable goods (62399)

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Retail trade: provinces

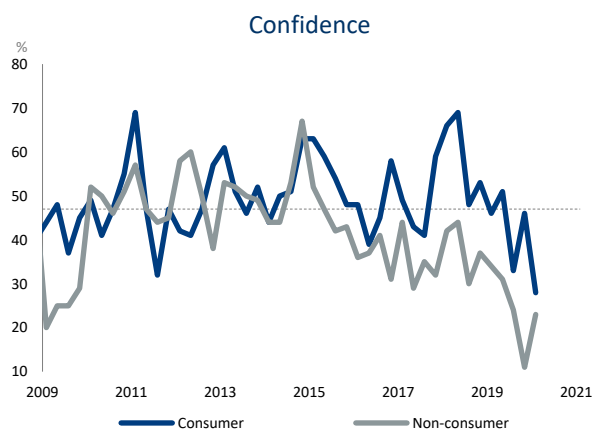
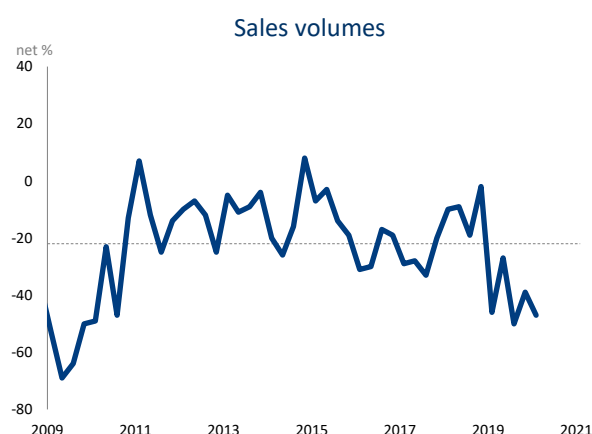
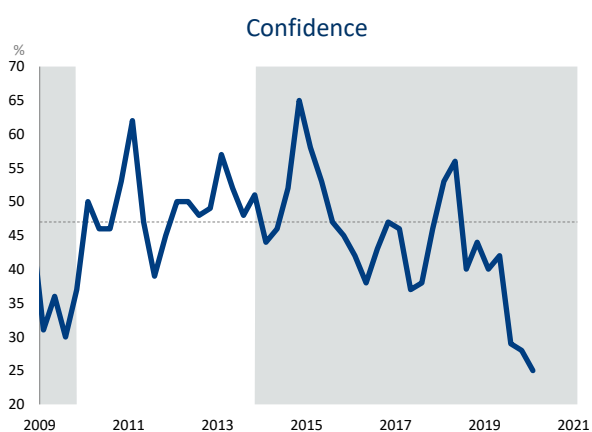
Indicator	Unit	$\mu-\sigma$	μ	$\mu+\sigma$	18Q2	18Q3	18Q4	19Q1	19Q2	19Q3	19Q4	20Q1	Δ	σ_{Δ}
Gauteng														
Confidence	%	23	34	46	38	12	19	17	18	14	25	16	-9	11
Smoothed	%	26	34	43	29	23	16	18	16	19	18	21	3	4
Sales volumes	Net %	-47	-26	-5	-36	-58	-24	-43	-63	-48	-78	-74	4	17
Smoothed	Net %	-44	-26	-8	-42	-39	-42	-43	-51	-63	-67	-76	-9	6
KwaZulu-Natal														
Confidence	%	19	35	50	23	11	27	13	0	7	26	16	-10	19
Smoothed	%	24	35	46	26	20	17	13	7	11	16	21	5	6
Sales volumes	Net %	-52	-31	-10	-3	-15	-45	-9	-76	-67	-38	-62	-24	26
Smoothed	Net %	-45	-31	-17	-17	-21	-23	-43	-51	-60	-56	-50	6	10
Western Cape														
Confidence	%	35	46	58	50	37	58	41	59	26	41	25	-16	15
Smoothed	%	38	46	54	44	48	45	53	42	42	31	33	2	5
Sales volumes	Net %	-27	-4	19	-30	15	43	-14	8	-23	-7	-19	-12	23
Smoothed	Net %	-22	-4	14	-7	9	15	12	-10	-7	-16	-13	3	9



μ – average
 σ – standard deviation
 Δ – change from previous period
 σ_{Δ} – volatility (standard deviation of the changes)
 All of the above calculated over the last 20 years
 See Technical note for further details

Wholesale trade: total⁶

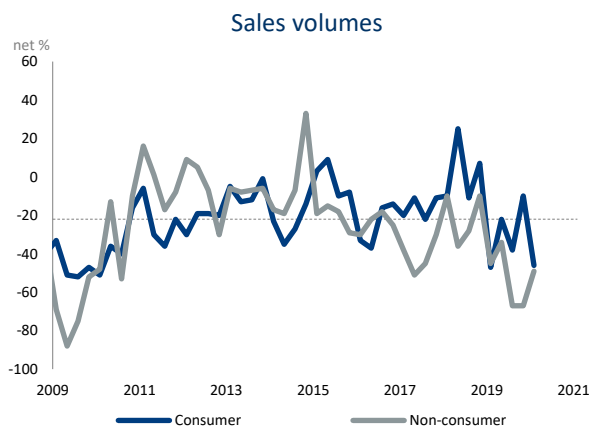
Indicator	Unit	$\mu-\sigma$	μ	$\mu+\sigma$	18Q2	18Q3	18Q4	19Q1	19Q2	19Q3	19Q4	20Q1	Δ	σ_{Δ}
Confidence	%	36	45	54	56	40	44	40	42	29	28	25	-3	7
Business conditions	Net %	-50	-32	-14	-9	-39	-28	-47	-33	-57	-63	-52	11	15
Sales volumes	Net %	-41	-23	-5	-9	-19	-2	-46	-27	-50	-39	-47	-8	15
Selling prices	Net %	-1	20	42	1	12	28	10	11	17	13	11	-2	16



⁶ The "wholesale trade total" consists of the "wholesale trade consumer goods" and the "wholesale trade non-consumer goods" sectors. The BER does not cover the wholesale trade on a fee or contract basis (SIC code 611), the wholesale trade in precious stones, jewellery and silverware (61393) and the wholesale trade in solid, liquid and gaseous fuels and related products (6141)

μ – average
 σ – standard deviation
 Δ – change from previous period
 σ_{Δ} – volatility (standard deviation of the changes)
 All of the above calculated over the last 20 years
 See Technical note for further details

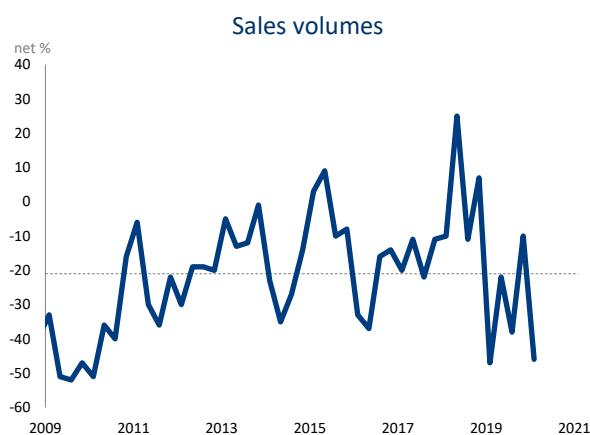
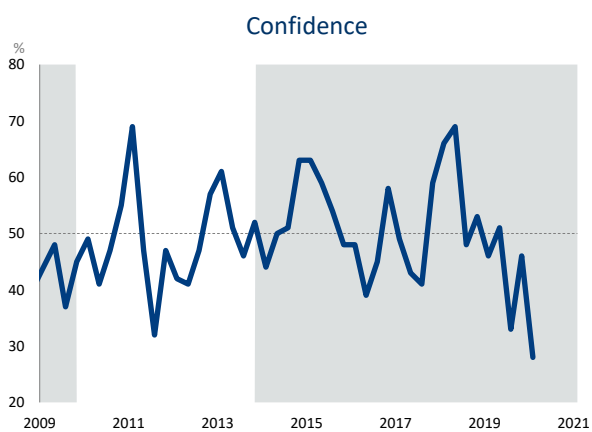
Wholesale trade: total



μ – average
 σ – standard deviation
 Δ – change from previous period
 σ_{Δ} – volatility (standard deviation of the changes)
All of the above calculated over the last 20 years
See Technical note for further details

Wholesale trade: consumer goods⁷

Indicator	Unit	$\mu-\sigma$	μ	$\mu+\sigma$	18Q2	18Q3	18Q4	19Q1	19Q2	19Q3	19Q4	20Q1	Δ	σ_{Δ}
Confidence	%	40	49	58	69	48	53	46	51	33	46	28	-18	10
Business conditions	Net %	-48	-32	-16	11	-40	-29	-55	-25	-51	-50	-57	-7	17
Sales volumes	Net %	-39	-21	-4	25	-11	7	-47	-22	-38	-10	-46	-36	18
Selling prices	Net %	1	23	45	3	19	23	9	5	23	23	17	-6	19

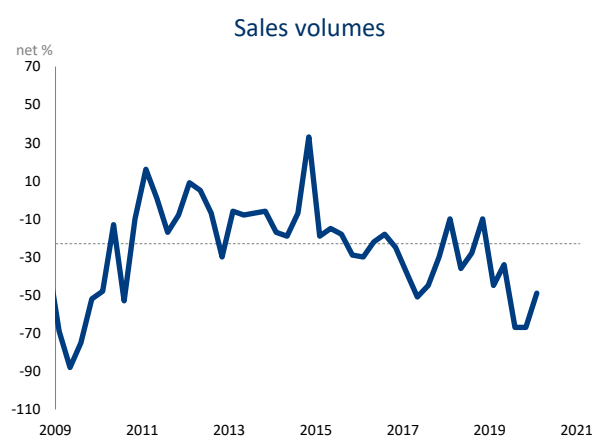
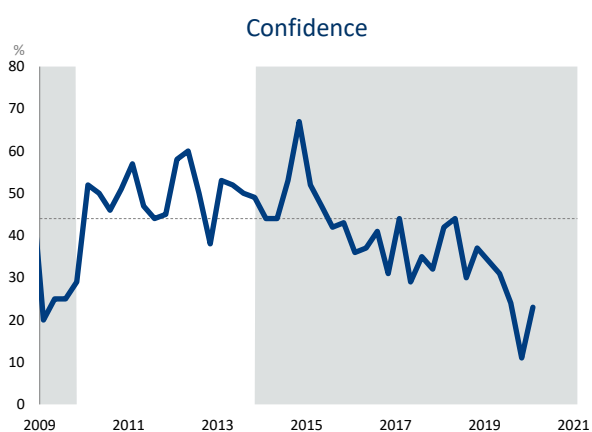


⁷ Agricultural raw materials and livestock (SIC 6121), food, beverages and tobacco (6122), textiles, clothing and footwear (6131) and other household goods (6139).

μ – average
 σ – standard deviation
 Δ – change from previous period
 σ_{Δ} – volatility (standard deviation of the changes)
 All of the above calculated over the last 20 years
 See Technical note for further details

Wholesale trade: non-consumer goods⁸

Indicator	Unit	$\mu - \sigma$	μ	$\mu + \sigma$	18Q2	18Q3	18Q4	19Q1	19Q2	19Q3	19Q4	20Q1	Δ	σ_{Δ}
Confidence	%	29	41	53	44	30	37	34	31	24	11	23	12	10
Business conditions	Net %	-55	-32	-9	-24	-37	-27	-40	-42	-66	-75	-45	30	19
Sales volumes	Net %	-51	-26	-1	-36	-28	-10	-45	-34	-67	-67	-49	18	21
Selling prices	Net %	-5	17	40	-1	3	33	11	18	8	4	5	1	17

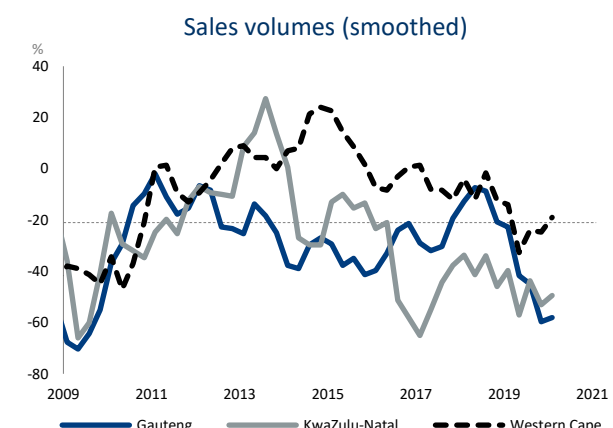
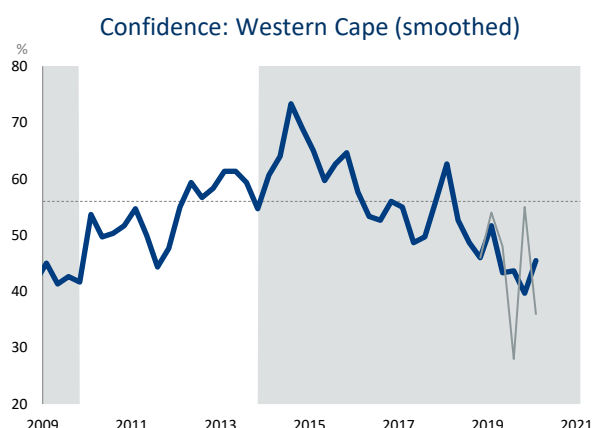
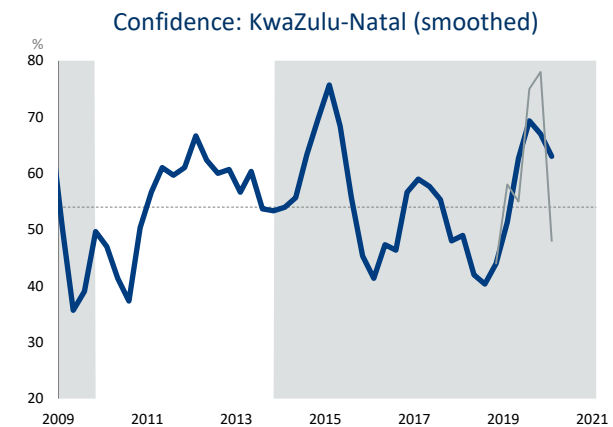
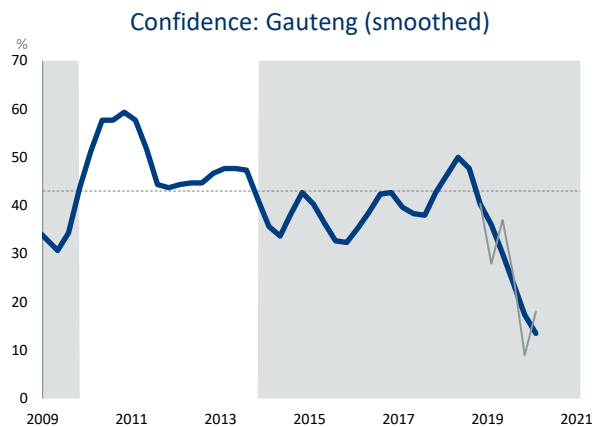


⁸ Metals and metal ores (SIC code 6142), construction materials, hardware, plumbing and supplies (6143), other intermediate products, waste and scrap (6149) and machinery and equipment (615).

μ – average
 σ – standard deviation
 Δ – change from previous period
 σ_{Δ} – volatility (standard deviation of the changes)
 All of the above calculated over the last 20 years
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Wholesale trade: provinces

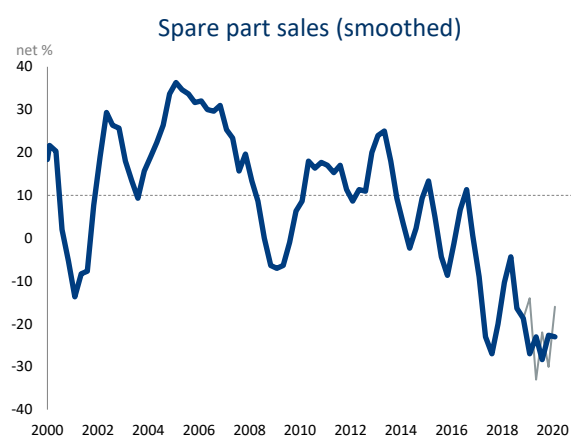
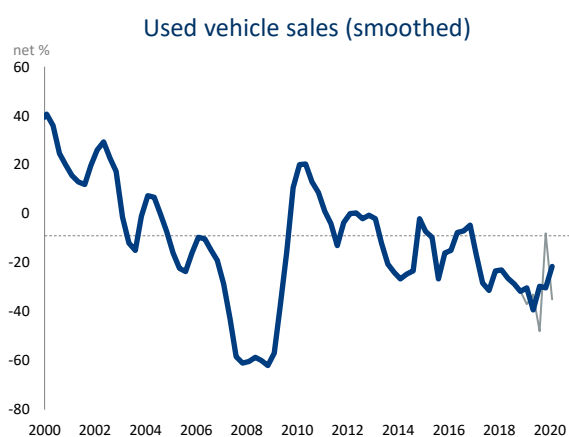
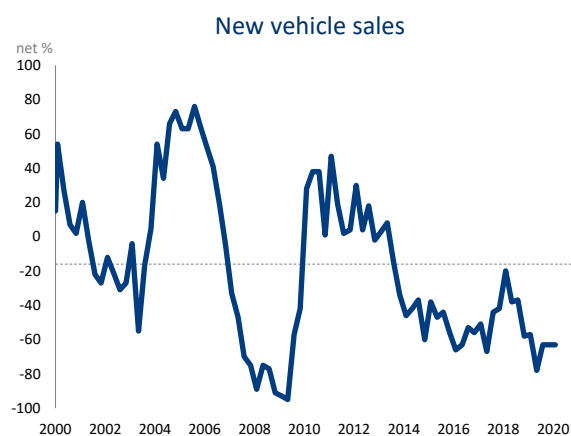
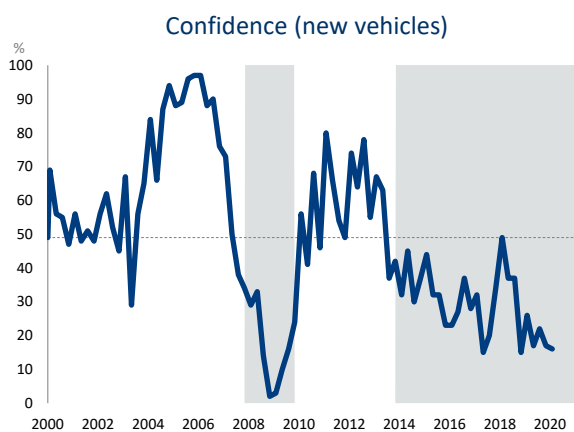
Indicator	Unit	$\mu-\sigma$	μ	$\mu+\sigma$	18Q2	18Q3	18Q4	19Q1	19Q2	19Q3	19Q4	20Q1	Δ	σ_{Δ}
Gauteng														
Confidence	%	30	41	52	50	50	43	28	37	25	9	18	9	8
Smoothed	%	31	41	51	50	48	40	36	30	24	17	14	-3	4
Sales volumes	Net %	-50	-29	-8	-13	-7	-6	-49	-13	-63	-59	-57	2	20
Smoothed	Net %	-46	-29	-12	-7	-9	-21	-23	-42	-45	-60	-58	2	8
KwaZulu-Natal														
Confidence	%	40	54	68	47	33	41	58	55	75	78	48	-30	19
Smoothed	%	45	54	64	42	40	44	51	63	69	67	63	-4	7
Sales volumes	Net %	-57	-29	0	-39	-55	-8	-75	-36	-60	-35	-64	-29	32
Smoothed	Net %	-50	-28	-6	-41	-34	-46	-40	-57	-44	-53	-50	3	13
Western Cape														
Confidence	%	42	54	66	62	31	53	54	48	28	55	36	-19	15
Smoothed	%	46	54	62	53	49	46	52	43	44	40	46	6	5
Sales volumes	Net %	-31	-9	14	1	-26	20	-31	-31	-36	-5	-33	-28	23
Smoothed	Net %	-27	-9	9	-12	-2	-12	-14	-33	-24	-25	-19	6	8



μ – average
 σ – standard deviation
 Δ – change from previous period
 σ_{Δ} – volatility (standard deviation of the changes)
 All of the above calculated over the last 20 years
 See Technical note for further details

Motor trade⁹

Indicator	Unit	$\mu-\sigma$	μ	$\mu+\sigma$	18Q2	18Q3	18Q4	19Q1	19Q2	19Q3	19Q4	20Q1	Δ	σ_{Δ}
New vehicles														
Confidence	%	24	48	72	37	37	15	26	17	22	17	16	-1	14
Sales volumes	Net %	-64	-19	26	-38	-37	-58	-57	-78	-63	-63	-63	0	21
Used vehicles														
Sales volumes	Net %	-38	-13	13	-28	-37	-21	-37	-33	-48	-8	-35	-27	18
Smoothed	Net %	-35	-12	10	-26	-29	-32	-30	-39	-30	-30	-22	8	9
Spare parts														
Sales volumes	Net %	-11	8	27	-7	-8	-34	-14	-33	-22	-30	-16	14	14
Smoothed	Net %	-9	8	25	-4	-16	-19	-27	-23	-28	-23	-23	0	6

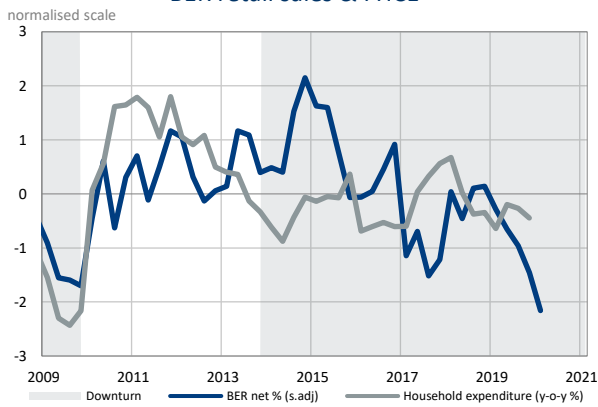


⁹ The “motor trade” consists of the retail sales of new and used vehicles (SIC code 6312), as well as new spare parts and accessories (6331). The BER does not cover the wholesale sale of motor vehicles (6311), the maintenance and repair of motor vehicles (632), the sale of used parts and accessories (6332), the sale, maintenance and repair of motor cycles (634) and the retail sale of automotive fuel (635).

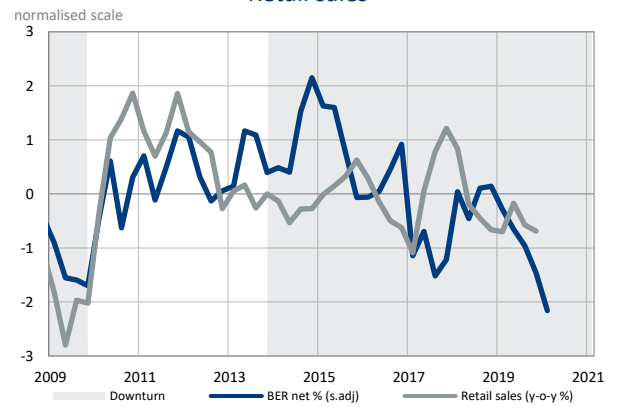
μ – average
 σ – standard deviation
 Δ – change from previous period
 σ_{Δ} – volatility (standard deviation of the changes)
 All of the above calculated over the last 20 years
 See Technical note for further details

Summary

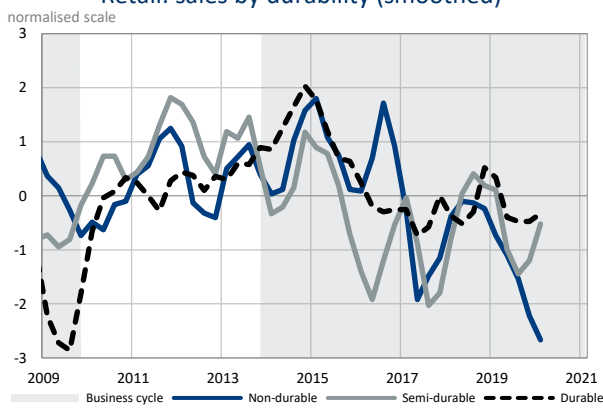
BER retail sales & FHCE*



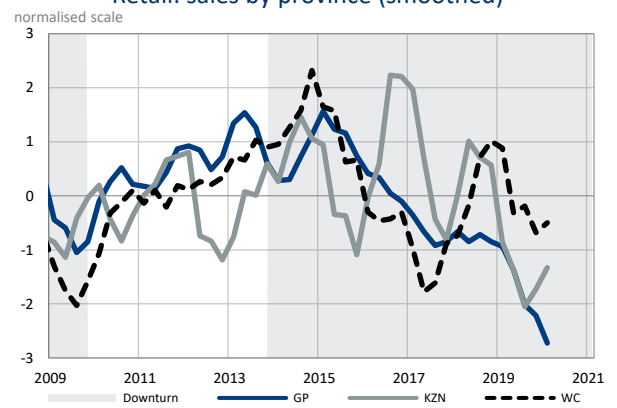
Retail sales



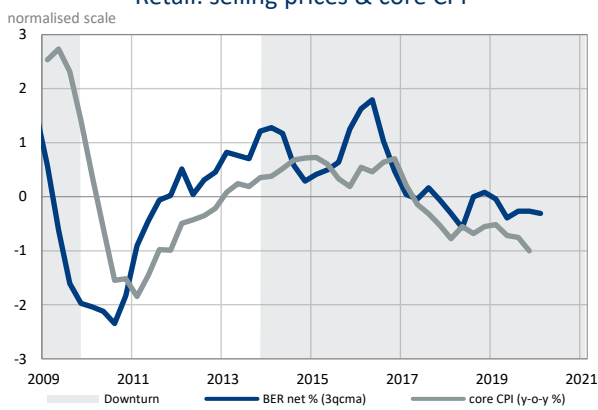
Retail: sales by durability (smoothed)



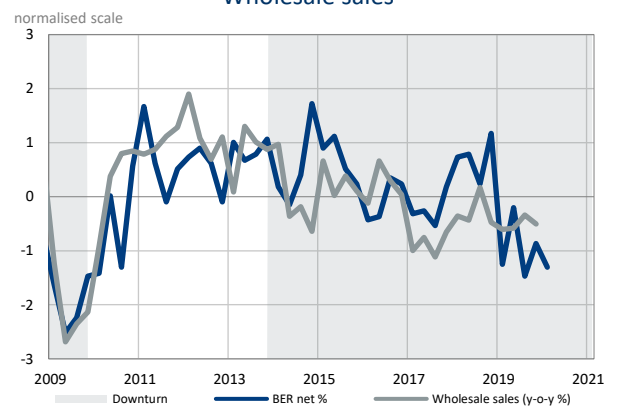
Retail: sales by province (smoothed)



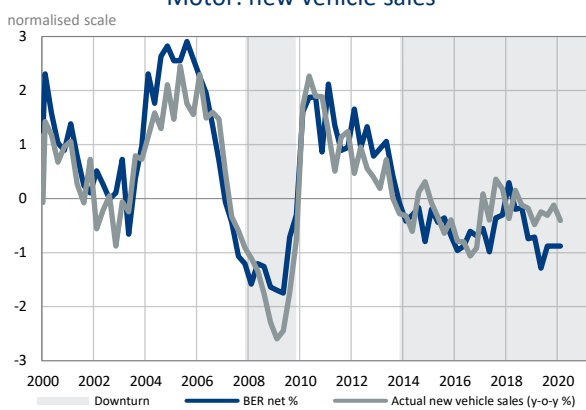
Retail: selling prices & core CPI



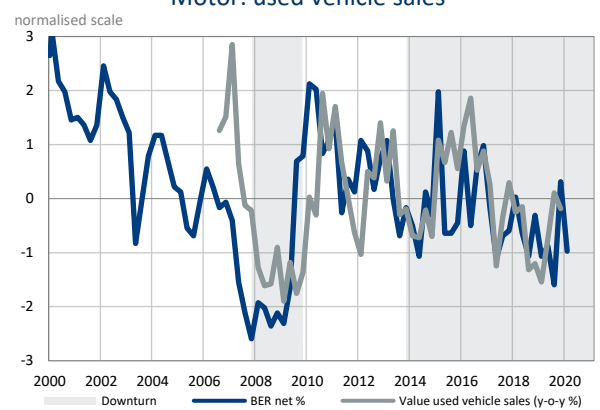
Wholesale sales



Motor: new vehicle sales



Motor: used vehicle sales



* Incl. spending on cars, petrol and services.

Technical note

The retail, wholesale and motor trade survey method

Short-term planning is hampered as official (quantitative or numeric) data is released with a time lag. Business tendency survey (BTS) results reveal what happened between the release of the last official figures and the current state of affairs. The survey results not only reveal earlier developments in activity, employment etc. (for which official figures are published), but also provide unique information, such as business confidence and respondents' expectations (or forecast) for the next quarter for which no official figures exist. It is now widely recognised that such subjective individual expectations play a key role in economic developments. Furthermore, the survey results of successive quarters provide a means of tracking cyclical movements, pinpointing trend changes and establishing forecasts.

The survey results are obtained from questionnaires completed by senior executives in the trade, manufacturing and building sector during the middle month of every calendar quarter.

The business survey questionnaire contains a small number of questions. These questions are qualitative in nature, e.g. "Compared to the same quarter a year ago, is the volume of sales up, the same or down?". No figures are requested.

The sample of executives remains the same from one survey to the next. A panel is in effect established. The sample provides for the main sectors. The list of participants is reviewed every few years to replace those firms that went out of business or stopped responding during the previous two years with new ones.

To provide for widely differing sizes, each firm in the manufacturing and trade sectors is allocated a weight based on its turnover. Firms in the building sector are not weighted. Participants have to complete a "participant details form" at the time of recruitment and every few years to ensure that their sector classification and turnover (optional) are correct.

The BER conducted its first survey of the manufacturing and trade (i.e. retail, wholesale and motor trade) sectors in 1954. The sector coverage was expanded to the building sector (i.e. main contractors and sub-contractors) in 1969. Architects, quantity surveyors and civil engineering contractors were added later to the building survey.

Consult the BER web page (www.ber.ac.za) for more information about the business tendency survey method.

The unique units of measurement of qualitative surveys

Net percentage (net %)

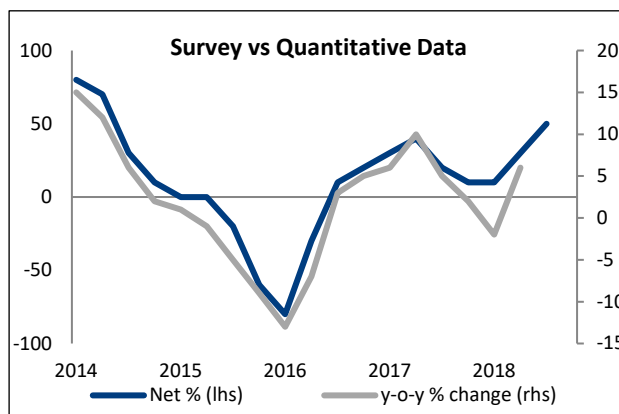
The responses related to the change in activity, prices, employment, business conditions, expected economic performance etc. are presented as a “net percentage” (also called a “net balance” or a “net majority”). If, for example, the percentages of respondents rating the volume of sales as “higher”, the “same” or “lower” compared to a year ago are 70%, 10% and 20% respectively, then one can conclude that the majority of participants experienced higher sales. The net percentage is calculated as the percentage of respondents rating “sales” as higher less the percentage rating it as “lower”. The percentage rating it as the “same” is ignored. The net percentage in this example is therefore 50%, being the difference between the 70% “higher” and the 20% “lower”. A net percentage of –10%, for instance, would indicate a decline in sales compared to a year ago. Take note that this does not mean a year-on-year contraction of 10%. It only means that the activity of a majority of 10% of the respondents was lower compared to a year ago.

The net percentage, or net balance statistic, can theoretically vary between a minimum of -100 (when all participants replied “lower”) and a maximum of +100 (when all respondents replied “higher”). Theoretically a value of zero, therefore, indicates no change, between 0 and 100 reflects a rise (or improvement) and between 0 and –100 a decline (or deterioration) compared to the same quarter a year ago. The net balance statistic is a diffusion index, i.e. it indicates the degree to which the indicated change is “diffused” (spread) throughout the sample population. It indicates both the direction and size of the change.

Given that it reflects respondents’ estimation of the change in the phenomenon/variable in the current quarter relative to the same quarter a year ago, the net percentage corresponds to a year-on-year percentage change/growth rate in the corresponding/equivalent official data series (see the figure on the right).

Percentage (%)

The responses relating to business confidence are presented as percentages.



In the case of business confidence, respondents have to rate prevailing business conditions as either “satisfactory” or “unsatisfactory”. The percentage of respondents rating prevailing business conditions as satisfactory is taken as an indicator (proxy) for business confidence. A reading of 10 for business confidence, for instance, means that only 10% of the respondents indicated that they were satisfied. In this example, 90% were, therefore, unsatisfied.

Theoretically, the confidence series can vary between a minimum of zero and a maximum of 100. A value of zero would reflect an extreme lack of confidence and 100 extreme confidence. These results reflect respondents’ evaluation of the phenomenon/the survey variable in respect to that specific survey quarter, i.e. not relative to some period in the past or future.

Descriptive statistics in the tables

Smoothed

Some series show erratic/volatile movements, i.e. data jumps around quite a bit between consecutive quarters. In such cases, it is necessary to smooth these movements over a longer period to obtain a general trend. Another case where we added moving averages is when the correlation between the survey results and the corresponding reference series is low or non-existent.

Three-quarter centred moving averages (3qcm) were selected in order to not disturb turning points too much, e.g. the moving average of 17Q4 is calculated as the average of 17Q3, 17Q4 and 18Q1, that of 18Q1 is calculated as the average of 17Q4, 18Q1 and 18Q2 etc. In order for the smoothed series to run up to the last unsmoothed data point, the last smoothed data point is only the average of two quarters, namely the previous and current quarter.

When a smoothed series is added, it is prudent not to attach too much value to the unsmoothed results of a particular quarter, but rather to evaluate it in its historical context.

Seasonal adjustment (SA)

In theory, the time series ought to display no seasonal patterns because respondents are instructed to compare the current quarter with the same one of a year ago (e.g. they have to compare the current Festive Season or wet/dry winter period with the same time a year ago). However, in practice, some series nevertheless reveal seasonal patterns, probably because some respondents incorrectly compare the survey quarter with the one directly preceding it. In such cases, a seasonally adjusted series (i.e. where such seasonal variation is eliminated with X12 ARIMA) is added.

Average (μ)

The neutral level of the time series for the two measurement types, net percentage and percentage, is 50 or zero respectively. The long-term average (mean) is often not equivalent to this neutral level. In such cases, it is more useful to evaluate the current results relative to such a long-term average than the neutral level.

One standard deviation below ($\mu - \sigma$) and above ($\mu + \sigma$) the average

The standard deviation indicates the common variation in or dispersion of the values. Data points falling between one standard deviation below and above the average could be regarded as common. Any data point falling outside these ranges, therefore, displays statistically significant variation.

Change (Delta: Δ)

This statistic indicates the change in the results of the latest quarter relative to the preceding quarter.

Volatility (standard deviation of the deltas: $\Delta\sigma$)

This statistic indicates the volatility of the quarter-on-quarter change. If the size (regardless if it is an increase or decline) of the change is greater than the standard deviation of the deltas, then it displays a statistically significant variation.

Conventions and aids provided in the charts

Shaded areas

Indicates cyclical downturns as demarcated by the South African Reserve Bank. Users need to take note that the business cycle could have already reversed course towards the end of the period covered in the chart, but usually we wait until the bank determines a turning point before changing the shaded areas.

Solid vs. dotted horizontal (X) axes:

A solid line indicates the theoretical mid-points of 50 or zero respectively, while a dotted line indicates the long-term average (mean). Also see the section on the “average” above.

Normalised scale

Time series data is normalised (standardised) when one wishes to observe the co-movement among indicators with different units of measurement, say for instance, between a diffusion index (confidence) and the growth rate in a volume index (GDP growth). Normalisation converts both series to the same scale (unit) by subtracting the long-term average from each series and dividing it by its standard deviation. This ensures that one compares “apples” with “apples” when making a visual inspection and not mistakenly identify co-movements or deviations that different scales could produce.