BUREAU FOR ECONOMIC RESEARCH

Retail Trade

Quarterly analysis of activity in retail, wholesale and motor trade

First quarter 2023
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Executive summary

Trends in the trade sector (retail, wholesale and motor vehicles) signal information about the demand side of the economy.

The BER’s trade survey for the first quarter of 2023 suggests a sector under pressure and facing weak consumer demand. **Retail confidence** slipped from 42% to 34%. This is the weakest level since 2020Q2. Load-shedding is a significant contributory factor to this trend. At the same time, consumers continue to be pinched by high inflation (especially food prices) and an elevated interest rate, which constrains their disposable income. The weak reading of the Consumer Confidence Index (CCI) for quarter one corroborates this trend.

Wholesalers face a similarly challenging trading environment. Following a steep drop in 2022Q4, **wholesale confidence** increased marginally in quarter one. However, the index that tracks wholesalers’ perceptions of business conditions is at its lowest reading since 2020Q3.

Confidence among **motor traders** also remains relatively muted. Naamsa predicts growth in sales for 2023, but at a much slower pace than last year. The CCI subindex that tracks consumers' views on the suitability of the present time to buy durable goods (including vehicles) confirms that many consider the current time highly inappropriate to make such purchases.

This report was completed on 27 March 2023.
Please refer to the glossary on the BER’s website for explanations of technical terms.

Contents

Summary of the 2023Q1 trade sector survey results

The retail, wholesale and motor trade sectors tell us something about the demand for goods. If these sectors trend downward, it could indicate constraints on household spending. It might also signal that consumers are directing a larger share of disposable income to other activities, like restaurants, transport, and real estate, or that they are saving more, as we saw during the COVID-19 pandemic.

Retailers face a difficult start to the year

Measured in real terms, retail sales during the fourth quarter of last year were 0.2% lower than in the same quarter of 2021. This contrasts with positive growth in the preceding three quarters of 2022 and can likely be attributed to record load-shedding during Q4 and household spending constraints (e.g., double-digit food inflation and rising interest rates). These pressures have not yet abated: retail sales in January were -0.8% lower than at the start of 2022.

Sales of semi-durable goods have, in contrast, been performing well. This is likely because this subsector has been taking longer to recover from the effects of the pandemic. It is being driven by a recovery in clothing and footwear sales – particularly for work attire and formal wear – now that most workers are back in the office and recreational and entertainment activities have normalised.

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

	21Q1	21Q2	21Q3	21Q4	22Q1	22Q2	22Q3	22Q4
Non-durable goods[1]	-3.6%	12.1%	-0.1	1.5%	4.0%	1.0%	4.0%	-1.1%
Semi-durable goods[2]	13.6%	56.3%	7.3%	12.0%	9.7%	6.6%	8.0%	4.3%
Durable goods[3]	14.7%	51.0%	-4.8%	-2.3%	-4.8%	-5.0%	-2.9%	-2.6%
Total [4]	**-1.3%**	**29.0%**	**0.2%**	**2.5%**	**3.2%**	**1.0%**	**3.3%**	**-0.2%**

Source: Statistics South Africa, Retail Sales Statistics

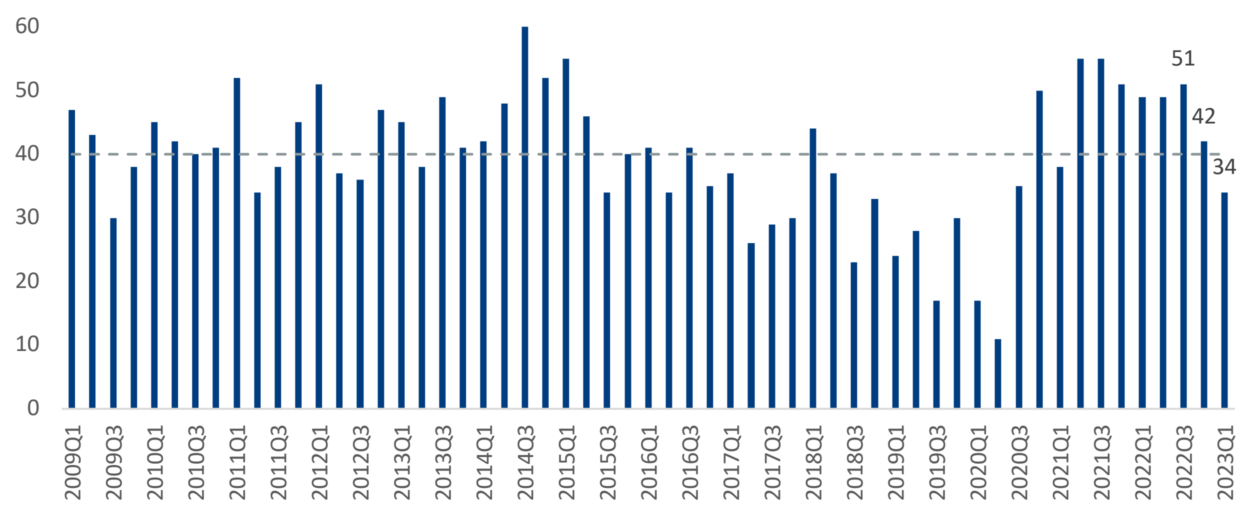
[1] Non-durable goods retailers include general dealers, retailers in specialised food, beverages and tobacco, and retailers in pharmaceutical and medical goods, cosmetics and toiletries
[2] Semi-durable goods retailers include retailers in textiles, clothing, footwear and leather goods
[3] Durable goods retailers include retailers in household furniture, appliances and equipment, and retailers in hardware, paint and glass
[4] Excluding "other".

Our trade survey for the first quarter of 2023[1] suggests a sector under pressure and facing weak consumer demand. Retail respondents are now less confident than they have been, on average, since 2009. Confidence dropped from 42% to 34% in the first quarter of 2023, which brings retail confidence 6%

[1] Conducted between 8-27 February 2023.

points below the long-term average. The retail business conditions index supports the downward trend in confidence: it fell from -23 to -41 index points below the long-term average of -30.

Figure 1: Confidence among retailers has dipped below the long-term average in 2023Q1



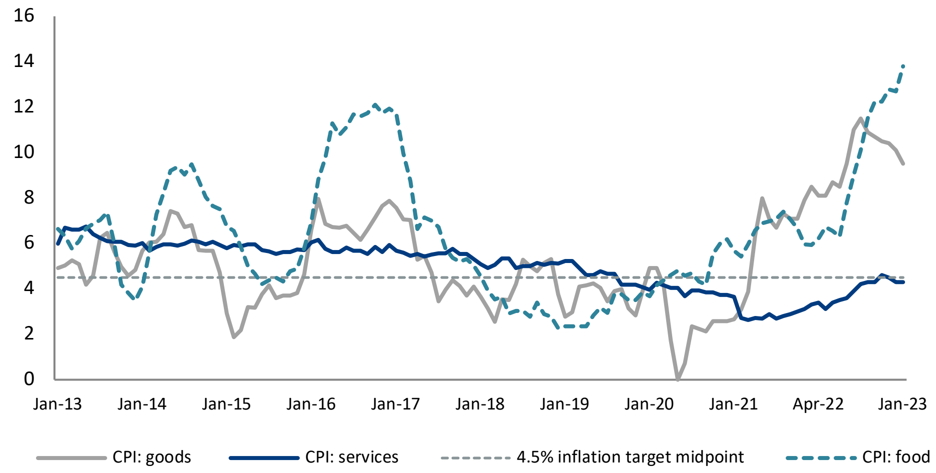
Source: BER Retail Survey

The results confirm a challenging retail environment. In many instances, retailers are trying to mitigate load-shedding by spending revenue that may have been invested or returned as profit on backup power solutions. Anecdotal evidence suggests that many high-income consumers are also investing in backup power, reducing their disposable income. At the same time, consumers continue to be pinched by high inflation (especially food prices) and an elevated interest rate.

While it is common for the first quarter of a year to have weak sales compared to the festive season, retailers expect lower sales this quarter than in the first quarter of last year. The retail sales volume index (seasonally adjusted) fell significantly to -35. The decline in the sales volume index for non-durable goods (mainly food and beverages) is particularly striking. Stubbornly high food price inflation likely affects this (see figure below), even as the inflation rate of other goods and services start to decline. The drop in the index may also signal that consumers are directing more of their spending to services – a sector still recovering from the contraction in sales during the COVID-19 pandemic. Furthermore, a recent study by Visa and Discovery Bank finds evidence that load-shedding may also encourage spending on restaurants – more of the bank's clients eat out during load-shedding (especially Stages 5 and 6).[2]

[2] **https://www.businesslive.co.za/bd/companies/retail-and-consumer/2023-03-08-higher-stages-of-load-shedding-a-boon-for-eateries-study-shows/**

Figure 2: Food price inflation remains sticky (y-o-y price changes)



Source: Stats SA

On a positive note, the purchase and selling price indices for retail goods (on aggregate) confirm that although price levels remain high, the rate of price increases may be tapering. A cross-category comparison shows this for semi- and durable goods, more so than for non-durable goods. The survey results provide early evidence that this may be affecting profitability among retailers of non-durable goods, where the profitability index dropped from -39 to -69 index points. A sharp increase in diesel usage and other load-shedding related expenditure (e.g., increased security, maintenance and capital expenditure) are no doubt also knocking retail profitability.

Wholesalers face worsening business conditions

The wholesale trade results are more difficult to decipher. Confidence among wholesalers increased marginally from 37% to 40%, but we are not reading too much into this uptick. It is likely a normalisation following the significant drop (from 50% to 37%) in confidence last quarter. Stats SA's wholesale trade results corroborate this trend: sales by wholesalers were 0.8% lower in 2022Q4 compared to the same quarter in 2021 (measured in real terms).

Wholesalers face a difficult trading environment. The wholesale business conditions index dropped from -22 to -39 – the lowest level since 2020Q3. Respondents mentioned load-shedding, more expensive imports due to a weaker rand, increased transport prices, stock availability issues and severe logistical challenges as factors affecting volumes. The BER's survey results point to a serial weakening in wholesale sales volumes over the last year, with both consumer and non-consumer wholesale sales volumes projected to be lower in year-on-year terms during the first quarter of 2023.

Motor dealers expect muted sales in 2023Q1

Naamsa speaks of “weak performance in the new vehicle market” affected by interest rate increases and the cost-of-living crisis. They remain optimistic that 6.3% more vehicles will be sold in South Africa this year, but the increase compares poorly to the 14.25% growth achieved in 2022.

Domestic new vehicle sales in February were 2.6% higher than last year. Our survey results show a slight increase in confidence among traders of new vehicles (up from 41 to 44%). However, **on balance, respondents are expecting sales volumes to be lower than in the same quarter last year**, with the sales volume index for new vehicles dropping from -15 to -26 (long-term average: -23) and for used vehicles dropping from -36 to -41 (long-term average: -20).

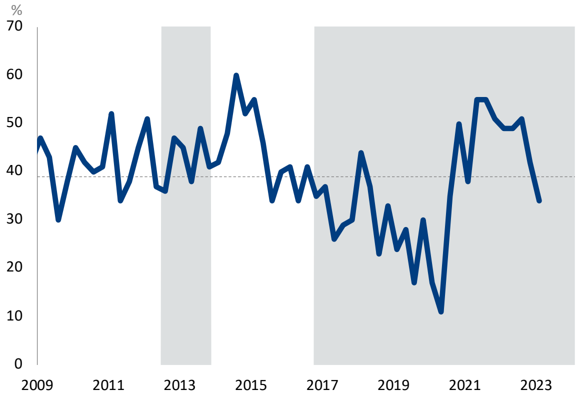
The CCI subindex that tracks consumers' views on the suitability of the present time to buy durable goods confirms that many consumers consider the present time as inappropriate to purchase durable goods, including vehicles.

Survey results

Retail trade: total[3]

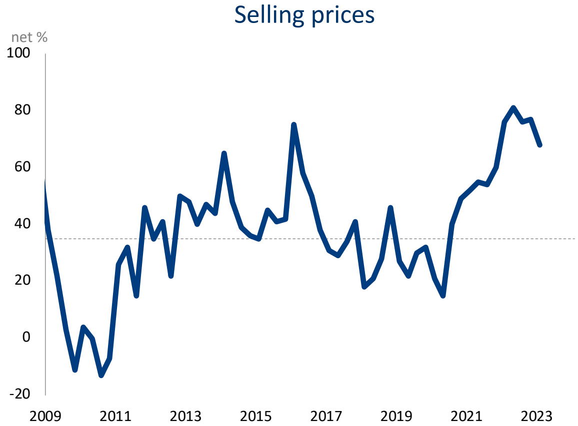
Indicator	Unit	μ-σ	μ	μ+σ	21Q2	21Q3	21Q4	22Q1	22Q2	22Q3	22Q4	23Q1	Δ	σ_{Δ}
Confidence	%	29	40	50	55	55	51	49	49	51	42	**34**	-8	9
Business conditions	Net %	-47	-30	-14	-2	-14	-10	-20	-9	-15	-23	**-41**	-18	14
Sales volumes	Net %	-36	-21	-5	-13	-15	-11	-23	5	1	-15	**-37**	-22	13
Seasonally adjusted	Net %	-35	-21	-6	-9	-13	-19	-21	9	3	-23	**-35**	-12	11
Smoothed	Net %	-33	-21	-8	-15	-13	-16	-10	-6	-3	-17	**-26**	-9	6
Selling prices	Net %	16	37	59	55	54	60	76	81	76	77	**68**	-9	14

Confidence

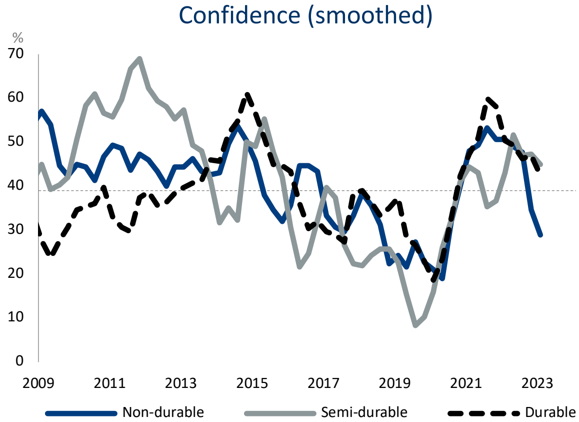


Sales volumes (smoothed)

Selling prices



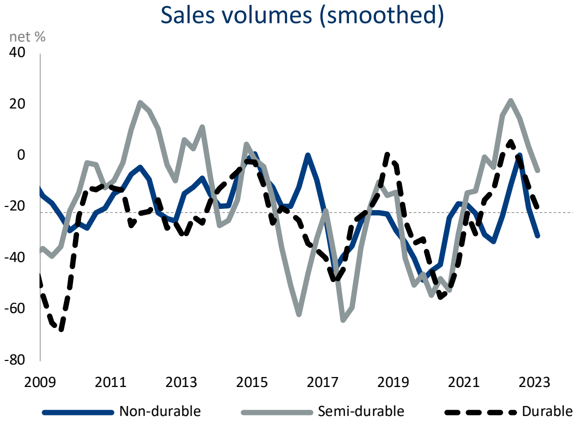
Confidence (smoothed)

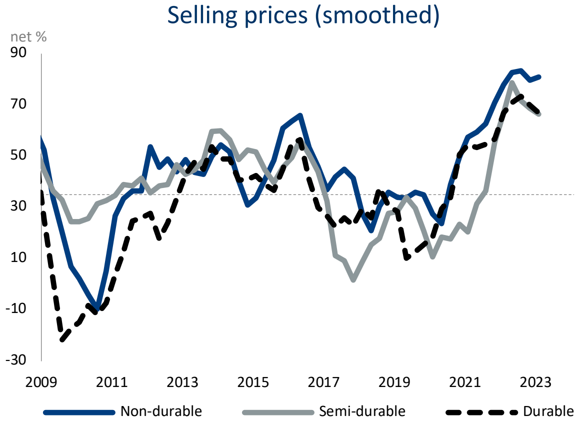


[3] The "retail trade total" consists of the "retail trade durables", the "retail trade semi-durables" and the "retail trade non-durables" goods sectors. The BER does not cover the retail trade in second hand goods in stores (SIC code 624), the retail trade not in stores (625) and the repair of personal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



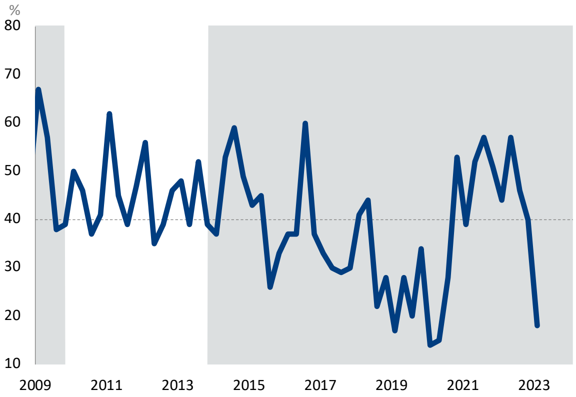


μ – average
σ – standard deviation
Δ – change from previous period
$σ_Δ$ – volatility (standard deviation of the changes)
All of the above calculated over the last 20 years
See Technical note for further details

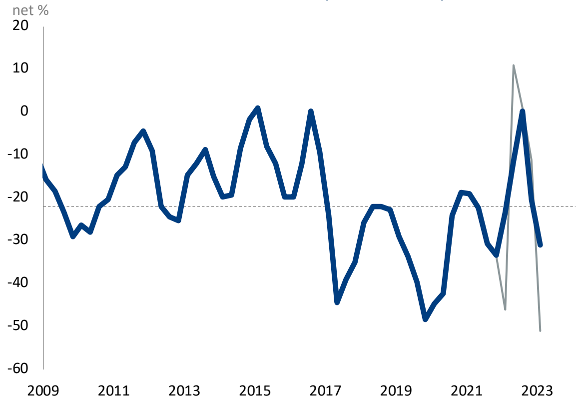
Retail trade: non-durables[4]

Indicator	Unit	μ-σ	μ	μ+σ	21Q2	21Q3	21Q4	22Q1	22Q2	22Q3	22Q4	23Q1	Δ	σ Δ
Confidence	%	28	40	53	52	57	51	44	57	46	40	**18**	-22	12
Business conditions	Net %	-50	-32	-14	-15	-13	-20	-41	-1	-18	-17	**-68**	-51	20
Sales volumes	Net %	-37	-21	-5	-38	-19	-35	-46	11	1	-11	**-51**	-40	18
Seasonally adjusted	Net %	-37	-21	-5	-34	-17	-43	-44	15	3	-19	**-49**	-30	18
Smoothed	Net %	-32	-21	-9	-22	-31	-33	-23	-11	0	-20	**-31**	-11	8
Selling prices	Net %	19	42	66	56	69	63	81	90	77	83	**79**	-4	19

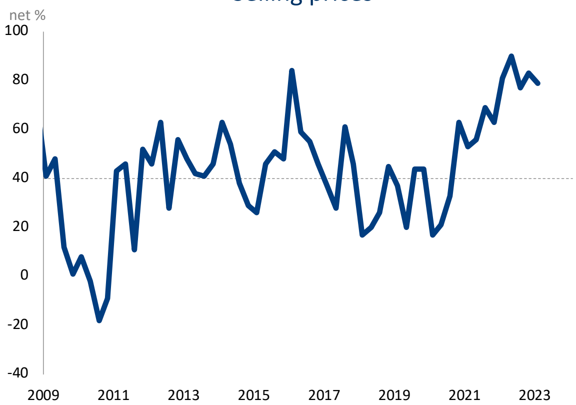
Confidence



Sales volumes (smoothed)



Selling prices

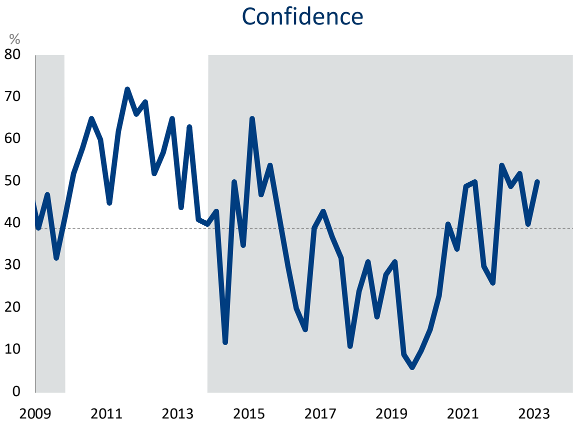


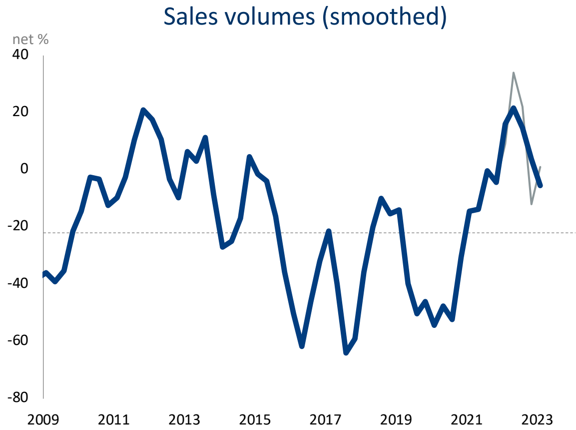
[4] Food, inedible groceries, tobacco (SIC code 621), beverages (622), pharmaceutical & medical goods, cosmetic & toiletry articles (6231), reading matter, stationery, office supplies (62391), other non-durable goods (62399)

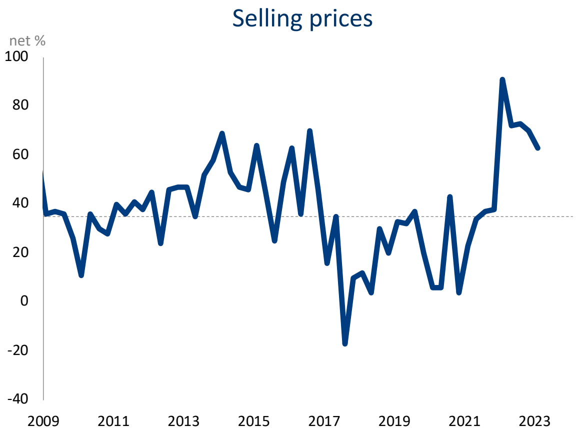
μ – average
σ – standard deviation
Δ – change from previous period
σ_Δ – volatility (standard deviation of the changes)
All of the above calculated over the last 20 years
See Technical note for further details

Retail trade: semi-durables[5]

Indicator	Unit	μ-σ	μ	μ+σ	21Q2	21Q3	21Q4	22Q1	22Q2	22Q3	22Q4	23Q1	Δ	σ Δ
Confidence	%	24	41	58	50	30	26	54	49	52	40	**50**	10	14
Business conditions	Net %	-64	-33	-2	40	-36	-30	6	34	22	-19	**1**	20	32
Sales volumes	Net %	-48	-18	13	21	-27	5	9	34	22	-12	**1**	13	34
Smoothed	Net %	-41	-18	5	-14	0	-4	16	22	15	4	**-6**	-10	12
Selling prices	Net %	17	38	58	34	37	38	91	72	73	70	**63**	-7	19





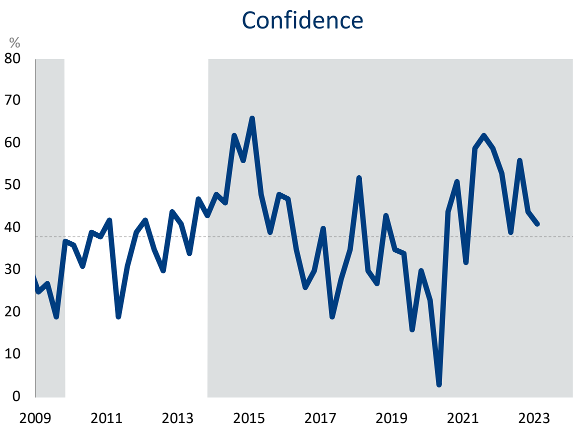


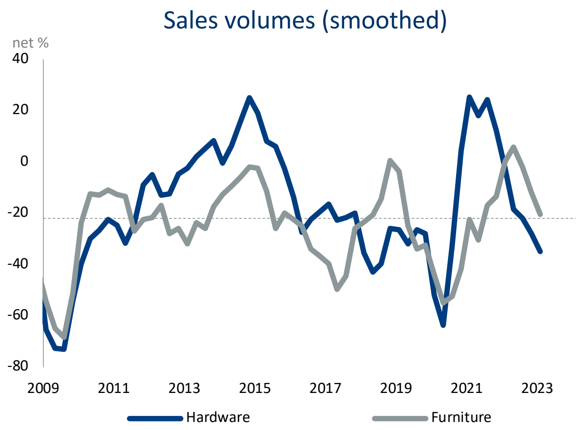
[5] Textiles, clothing, footwear & leather goods (SIC code 6232), sports goods & entertainment requisites (62393), other semi-durable goods (62399)

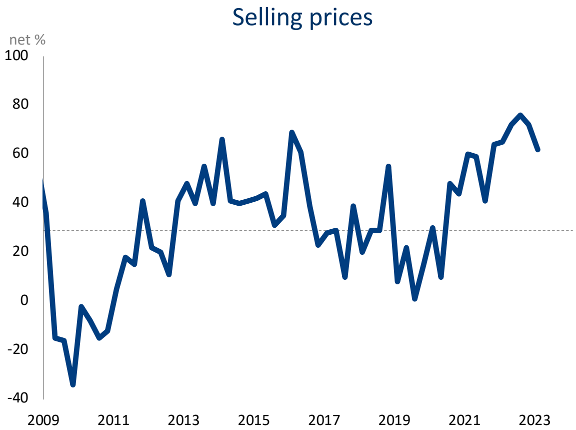
μ – average
σ – standard deviation
Δ – change from previous period
σΔ – volatility (standard deviation of the changes)
All of the above calculated over the last 20 years
See Technical note for further details

Retail trade: durables[6]

Indicator	Unit	μ-σ	μ	μ+σ	21Q2	21Q3	21Q4	22Q1	22Q2	22Q3	22Q4	23Q1	Δ	σ Δ
Confidence	%	26	39	51	59	62	59	53	39	56	44	**41**	-3	13
Business conditions	Net %	-50	-28	-6	6	-7	10	1	-31	-22	-30	**-32**	-2	22
Sales volumes														
Total	Net %	-44	-21	2	10	-5	14	-2	-11	-6	-19	**-37**	-18	22
Hardware	Net %	-48	-18	12	18	22	33	-18	-23	-14	-29	**-41**	-12	26
Furniture	Net %	-47	-24	-2	2	-42	-11	13	-1	5	-10	**-31**	-21	26
Selling prices	Net %	6	32	57	59	41	64	65	72	76	72	**62**	-10	19





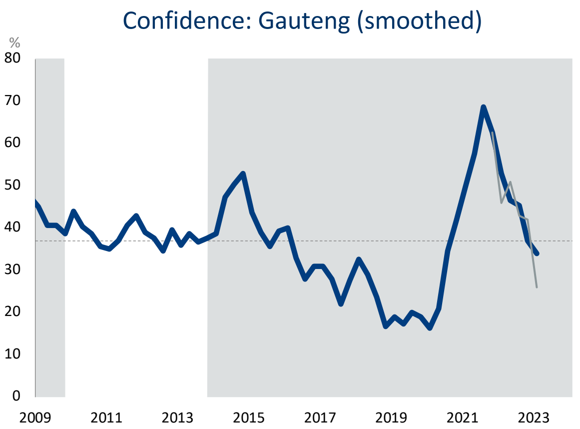


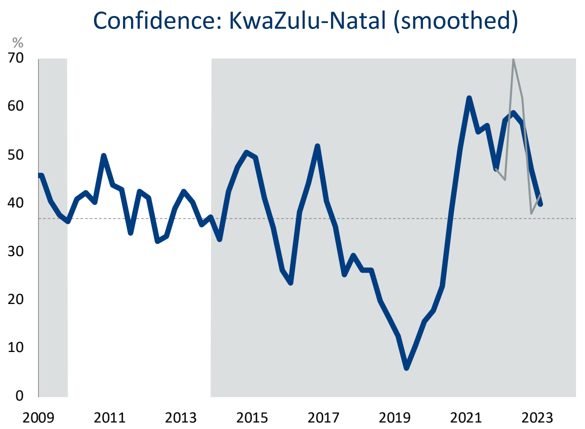
[6] "Retail trade durables" consists of "hardware" and "furniture". "Hardware" includes hardware, paint and glass (SIC code 6234). "Furniture" consists of household furniture, appliances, articles and equipment (6233), jewellery and related items (62392) and other durable goods (62399)

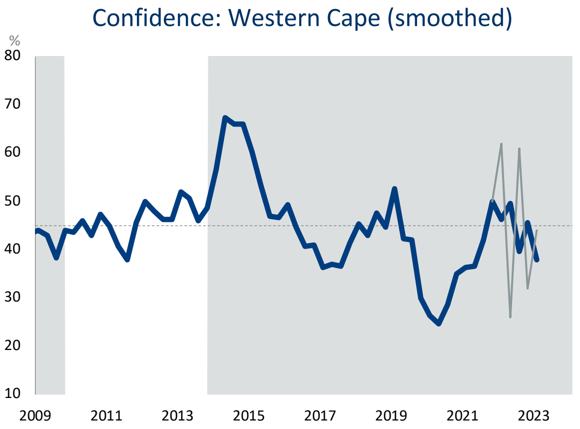
μ – average
σ – standard deviation
Δ – change from previous period
$σ_Δ$ – volatility (standard deviation of the changes)
All of the above calculated over the last 20 years
See Technical note for further details

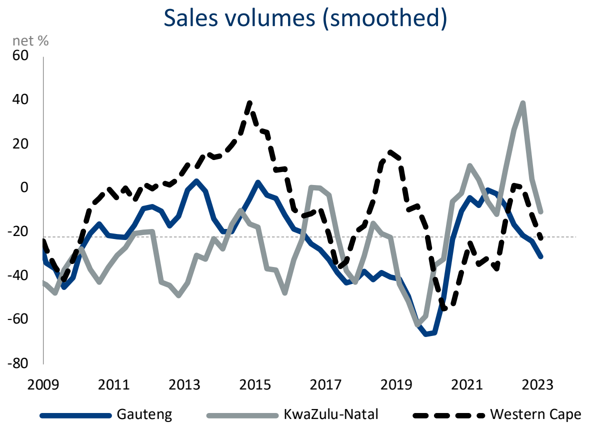
Retail trade: provinces

Indicator	Unit	μ-σ	μ	μ+σ	21Q2	21Q3	21Q4	22Q1	22Q2	22Q3	22Q4	23Q1	Δ	σ Δ
Gauteng														
Confidence	%	23	37	51	64	80	62	46	51	43	42	**26**	-16	14
Smoothed	%	26	37	48	58	69	63	53	47	45	37	**34**	-3	5
Sales volumes	Net %	-44	-23	-3	-12	-5	15	-17	-22	-10	-32	**-30**	2	18
Smoothed	Net %	-41	-23	-6	-8	-1	-2	-8	-16	-21	-24	**-31**	-7	8
KwaZulu-Natal														
Confidence	%	21	38	55	72	40	57	45	70	62	38	**42**	4	19
Smoothed	%	25	38	51	55	56	47	57	59	57	47	**40**	-7	7
Sales volumes	Net %	-51	-24	3	6	-5	-19	-11	57	34	26	**-47**	-73	30
Smoothed	Net %	-44	-24	-4	4	-6	-12	9	27	39	4	**-11**	-15	12
Western Cape														
Confidence	%	32	45	57	38	37	51	62	26	61	32	**44**	12	16
Smoothed	%	36	45	53	37	42	50	46	50	40	46	**38**	-8	5
Sales volumes	Net %	-35	-8	18	-12	-45	-38	-26	21	9	-28	**-17**	11	27
Smoothed	Net %	-30	-8	13	-34	-32	-36	-14	1	1	-12	**-23**	-11	10





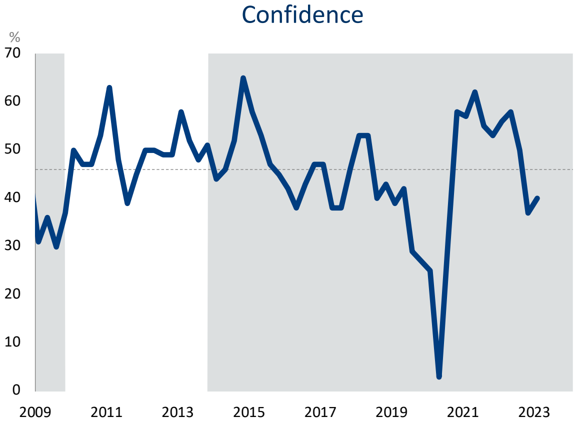


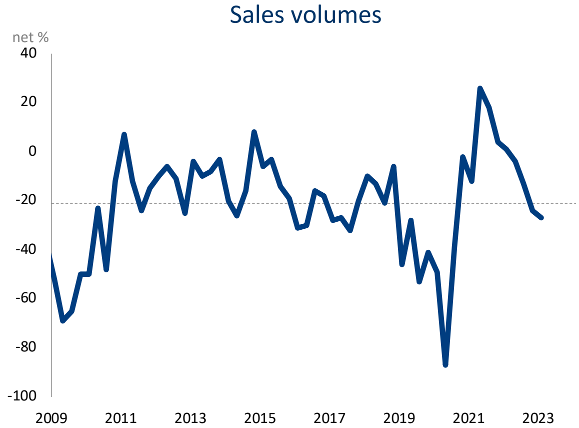


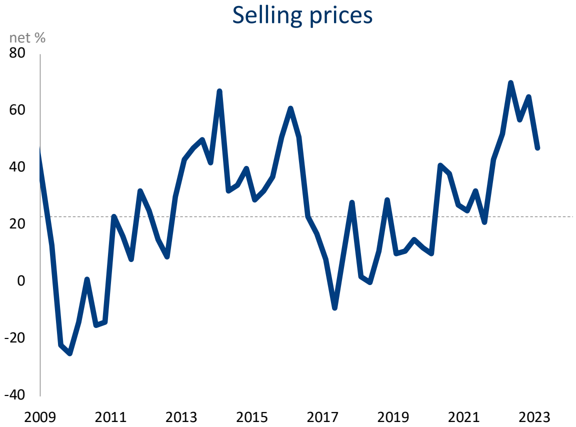
μ – average
σ – standard deviation
Δ – change from previous period
σΔ – volatility (standard deviation of the changes)
All of the above calculated over the last 20 years
See Technical note for further details

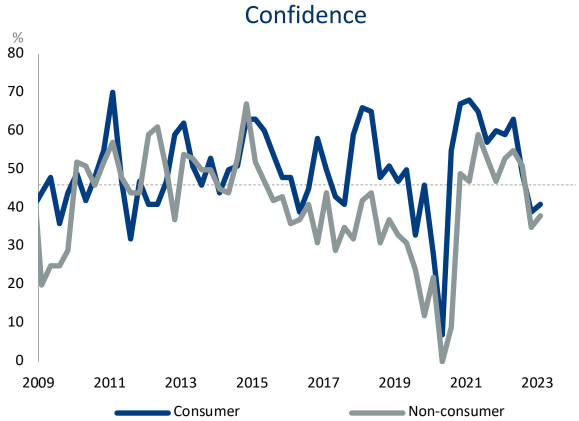
Wholesale trade: total[7]

Indicator	Unit	μ-σ	μ	μ+σ	21Q2	21Q3	21Q4	22Q1	22Q2	22Q3	22Q4	23Q1	Δ	σ Δ
Confidence	%	35	45	56	62	55	53	56	58	50	37	**40**	3	9
Business conditions	Net %	-51	-29	-7	38	-1	-4	4	-6	-12	-22	**-39**	-17	20
Sales volumes	Net %	-43	-21	0	26	18	4	1	-4	-13	-24	**-27**	-3	18
Selling prices	Net %	3	25	48	32	21	43	52	70	57	65	**47**	-18	16





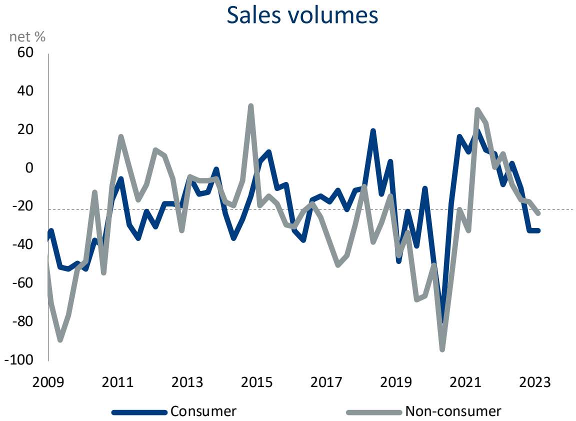


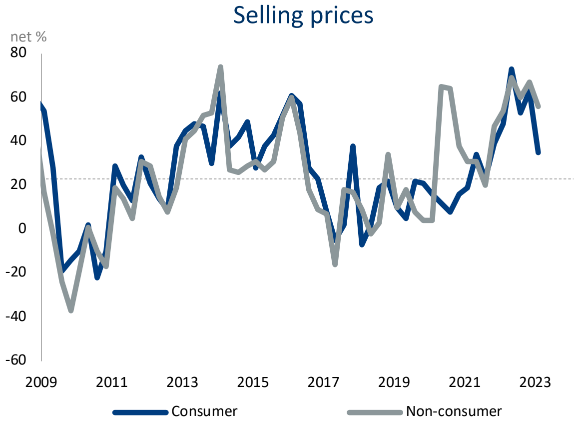


[7] The "wholesale trade total" consists of the "wholesale trade consumer goods" and the "wholesale trade non-consumer goods" sectors. The BER does not cover the wholesale trade on a fee or contract basis (SIC code 611), the wholesale trade in precious stones, jewellery and silverware (61393) and the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

μ – average
σ – standard deviation
Δ – change from previous period
σΔ – 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

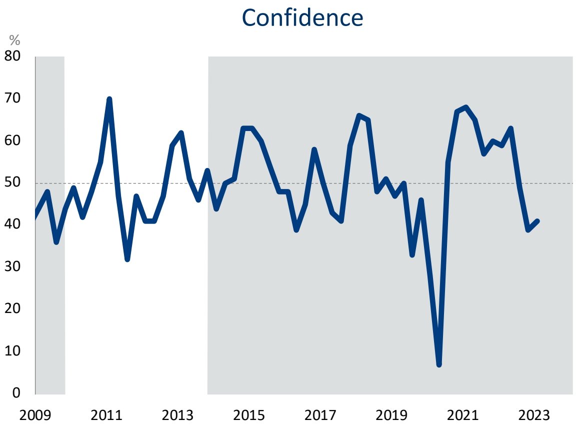


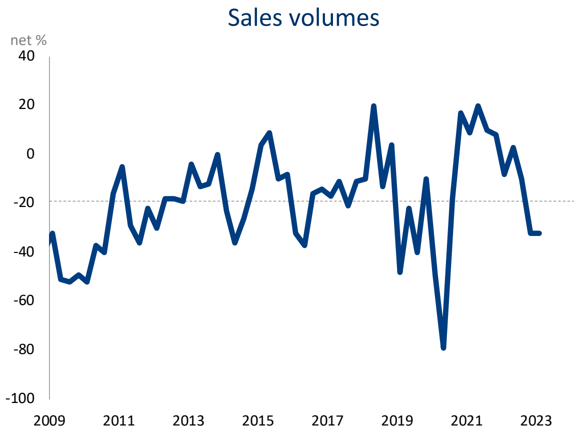


μ – average
σ – standard deviation
Δ – change from previous period
$σ_Δ$ – volatility (standard deviation of the changes)
All of the above calculated over the last 20 years
See Technical note for further details

Wholesale trade: consumer goods[8]

Indicator	Unit	μ-σ	μ	μ+σ	21Q2	21Q3	21Q4	22Q1	22Q2	22Q3	22Q4	23Q1	Δ	σ Δ
Confidence	%	39	50	61	65	57	60	59	63	49	39	**41**	2	12
Business conditions	Net %	-52	-29	-7	39	2	2	1	-11	-19	-30	**-58**	-28	23
Sales volumes	Net %	-39	-19	1	20	10	8	-8	3	-10	-32	**-32**	0	20
Selling prices	Net %	3	25	48	34	23	39	48	73	53	63	**35**	-28	18



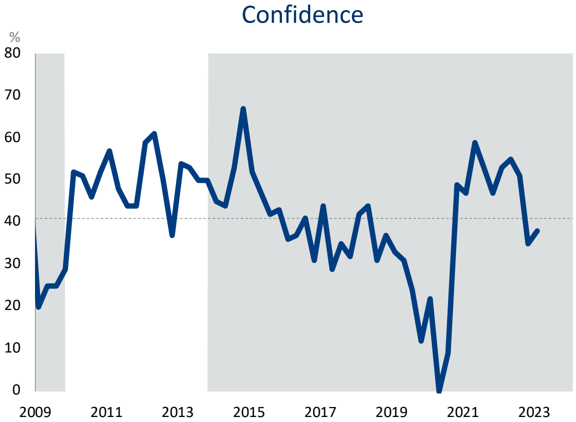


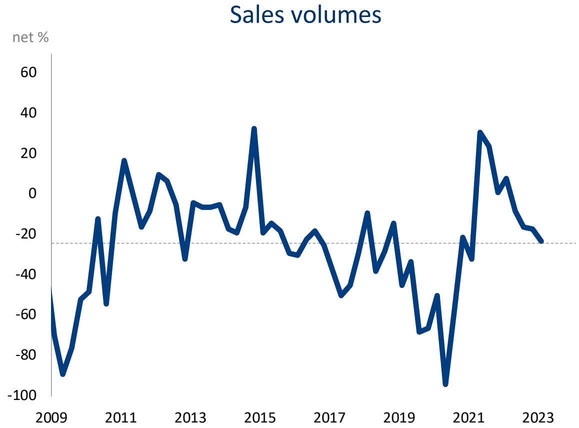
[8] Agricultural raw materials and livestock (SIC 6121), food, beverages and tobacco (6122), textiles, clothing and footwear (6131) and other household goods (6139).

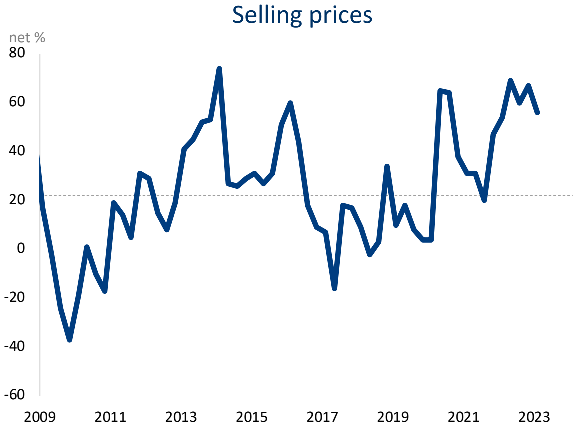
μ – average
σ – standard deviation
Δ – change from previous period
σΔ – volatility (standard deviation of the changes)
All of the above calculated over the last 20 years
See Technical note for further details

Wholesale trade: non-consumer goods[9]

Indicator	Unit	μ-σ	μ	μ+σ	21Q2	21Q3	21Q4	22Q1	22Q2	22Q3	22Q4	23Q1	Δ	σ Δ
Confidence	%	28	41	55	59	53	47	53	55	51	35	**38**	3	11
Business conditions	Net %	-55	-29	-4	38	-3	-10	7	-2	-7	-19	**-25**	-6	22
Sales volumes	Net %	-51	-24	4	31	24	1	8	-8	-16	-17	**-23**	-6	23
Selling prices	Net %	-1	24	50	31	20	47	54	69	60	67	**56**	-11	19





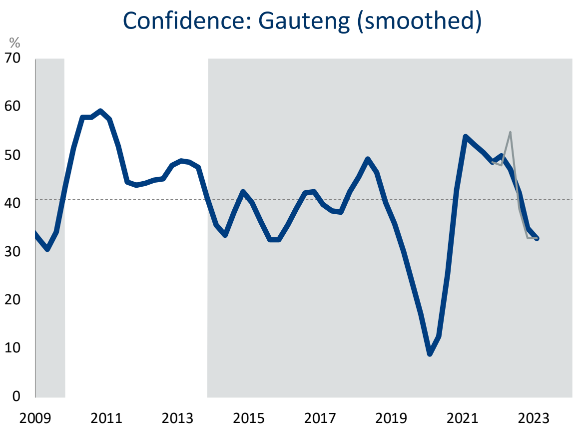


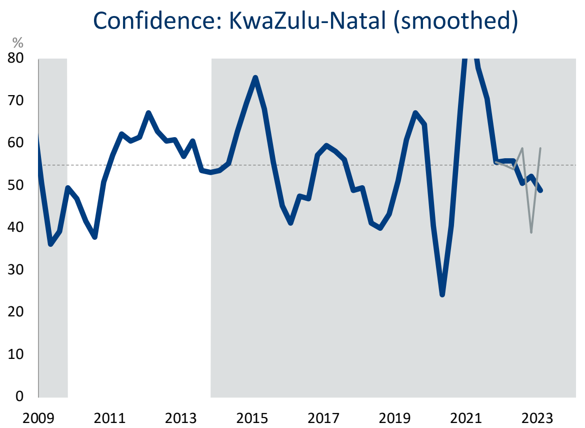
[9] Metals and metal ores (SIC code 6142), construction materials, hardware, plumbing and supplies (6143), other intermediate products, waste and scrap (6149) and machinery and equipment (615).

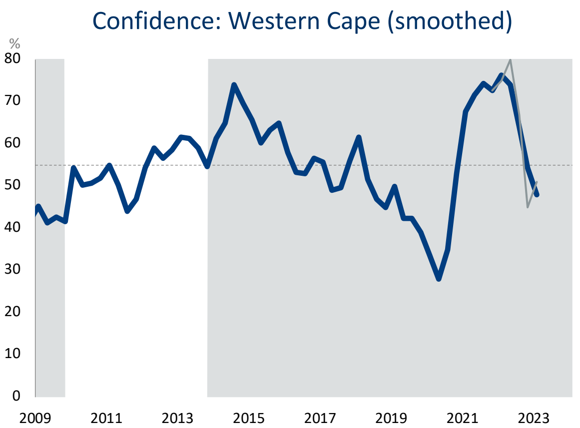
μ – average
σ – standard deviation
Δ – change from previous period
$σ_Δ$ – volatility (standard deviation of the changes)
All of the above calculated over the last 20 years
See Technical note for further details

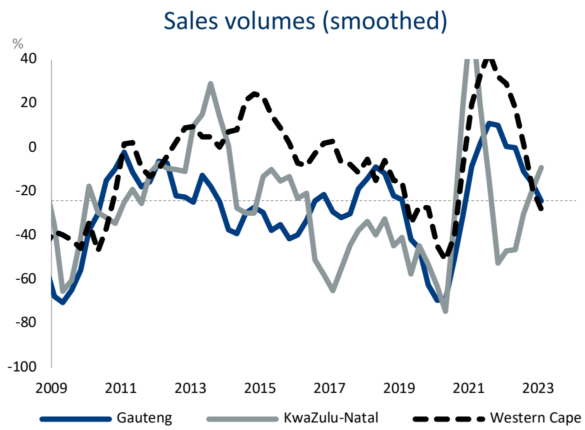
Wholesale trade: provinces

Indicator	Unit	μ-σ	μ	μ+σ	21Q2	21Q3	21Q4	22Q1	22Q2	22Q3	22Q4	23Q1	Δ	σ_Δ
Gauteng														
Confidence	%	29	41	53	54	51	47	48	55	39	33	**33**	0	10
Smoothed	%	31	41	52	52	51	49	50	47	42	35	**33**	-2	5
Sales volumes	Net %	-51	-27	-3	9	23	1	7	-6	-1	-25	**-23**	2	21
Smoothed	Net %	-47	-27	-7	2	11	10	1	0	-11	-16	**-24**	-8	9
KwaZulu-Natal														
Confidence	%	37	55	72	100	53	59	55	54	59	39	**59**	20	22
Smoothed	%	43	55	67	78	71	56	56	56	51	52	**49**	-3	9
Sales volumes	Net %	-62	-26	9	60	-62	-41	-54	-46	-39	-5	**-13**	-8	38
Smoothed	Net %	-52	-26	0	20	-14	-52	-47	-46	-30	-19	**-9**	10	18
Western Cape														
Confidence	%	41	55	69	80	69	74	75	80	67	45	**51**	6	15
Smoothed	%	44	55	66	72	74	73	76	74	64	54	**48**	-6	6
Sales volumes	Net %	-34	-7	21	58	38	34	25	29	0	-24	**-32**	-8	26
Smoothed	Net %	-29	-7	16	33	43	32	29	18	2	-19	**-28**	-9	11







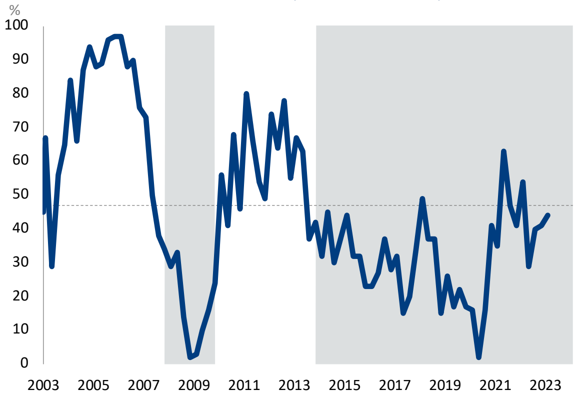


μ – average
σ – standard deviation
Δ – change from previous period
σ_Δ – volatility (standard deviation of the changes)
All of the above calculated over the last 20 years
See Technical note for further details

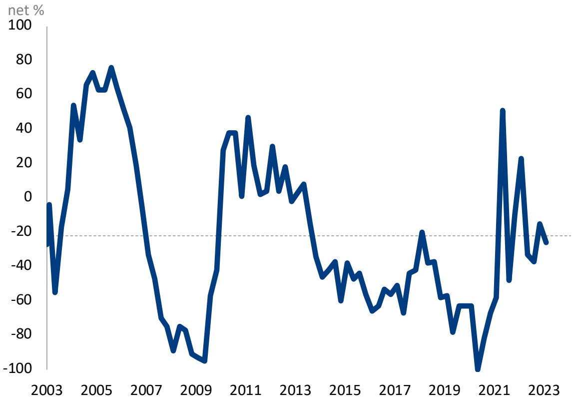
Motor trade[10]

Indicator	Unit	μ-σ	μ	μ+σ	21Q2	21Q3	21Q4	22Q1	22Q2	22Q3	22Q4	23Q1	Δ	σ Δ
New vehicles														
Confidence	%	20	46	71	63	47	41	54	29	40	41	**44**	3	15
Sales volumes	Net %	-70	-23	25	51	-48	-10	23	-33	-37	-15	**-26**	-11	28
Used vehicles														
Sales volumes	Net %	-45	-20	4	20	-22	-1	-6	-41	-54	-36	**-41**	-5	23
Smoothed	Net %	-40	-20	0	-12	-1	-10	-16	-34	-44	-44	**-39**	5	10
Spare parts														
Sales volumes	Net %	-19	5	29	36	-12	26	26	22	9	6	**-3**	-9	21
Smoothed	Net %	-16	5	26	-5	17	13	25	19	12	4	**2**	-2	8

Confidence (new vehicles)



New vehicle sales



Used vehicle sales (smoothed)

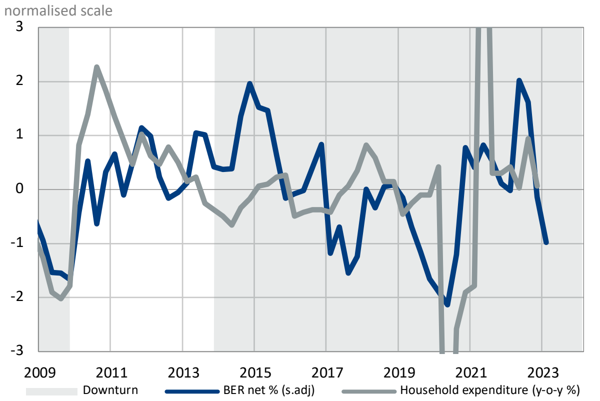
Spare part sales (smoothed)

[10] 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).

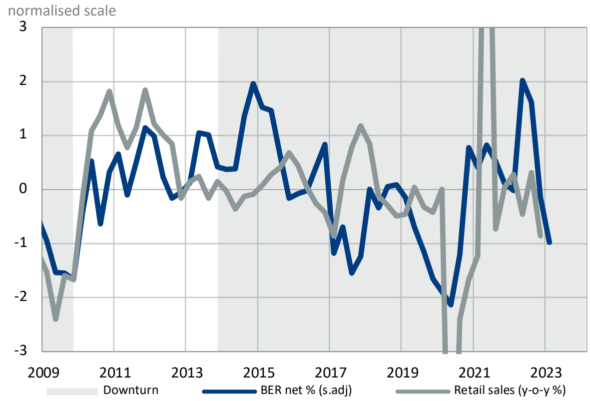
μ – average
σ – standard deviation
Δ – change from previous period
σΔ – volatility (standard deviation of the changes)
All of the above calculated over the last 20 years
See Technical note for further details

Summary

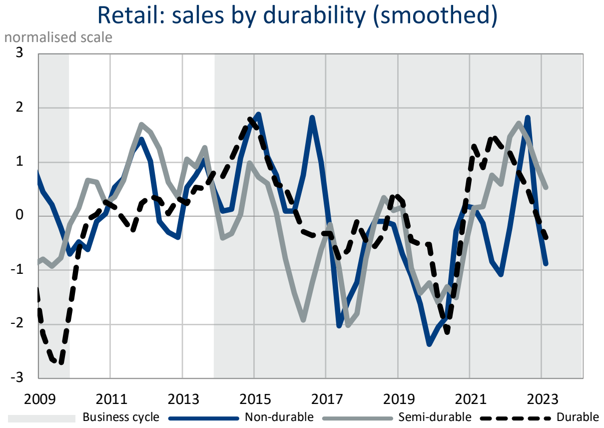
BER retail sales & FHCE*



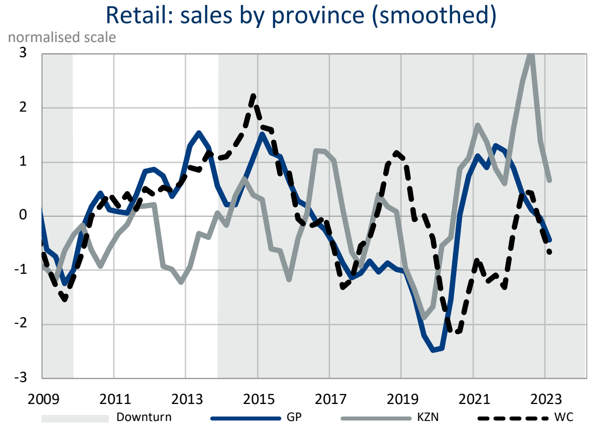
Retail sales



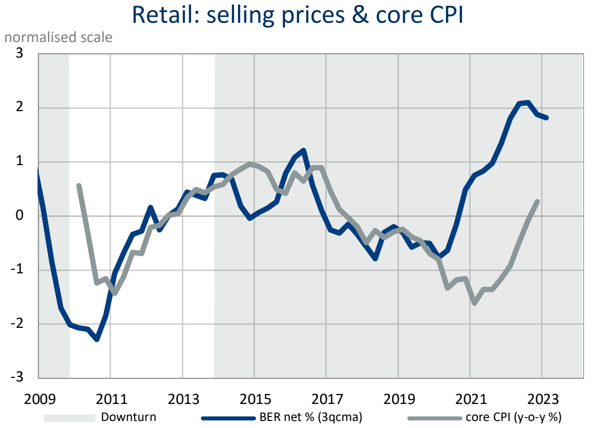
Retail: sales by durability (smoothed)



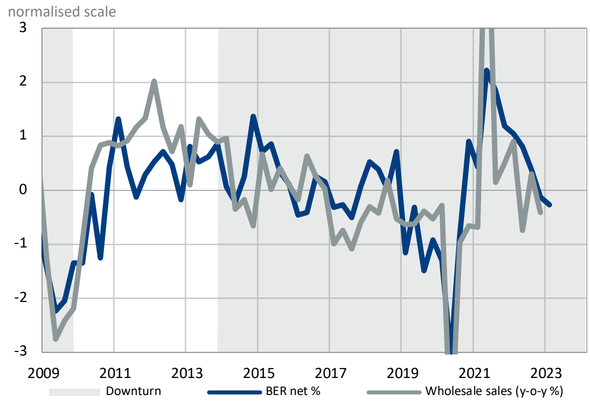
Retail: sales by province (smoothed)



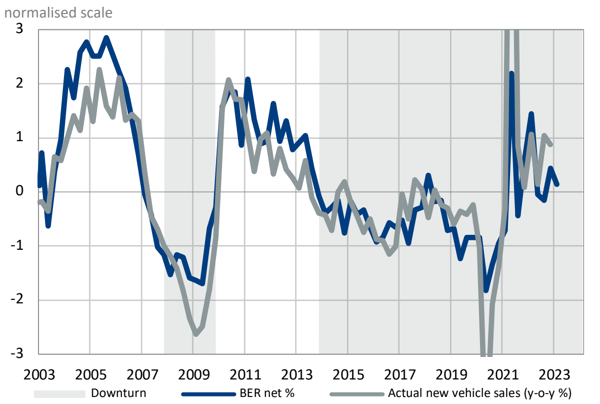
Retail: selling prices & core CPI



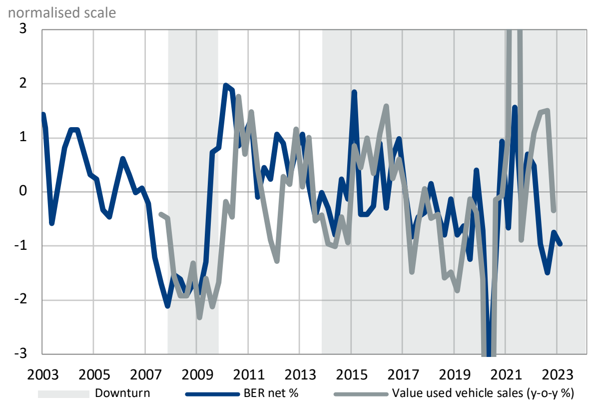
Wholesale sales



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.

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. Each response is weighted according to the firm's size and the sector's contribution, and this is, in turn, adjusted for the response pattern. These weights are updated every 5 years. The new weights will apply from the third quarter of 2022 onwards. At the same time, the historical time series for the retail and wholesale trade going back to 2009 were revised to reflect the latest business census and other official results. No changes were made to the historical time series for the motor trade. The revision led to very small changes in the results relative to those published previously.

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.

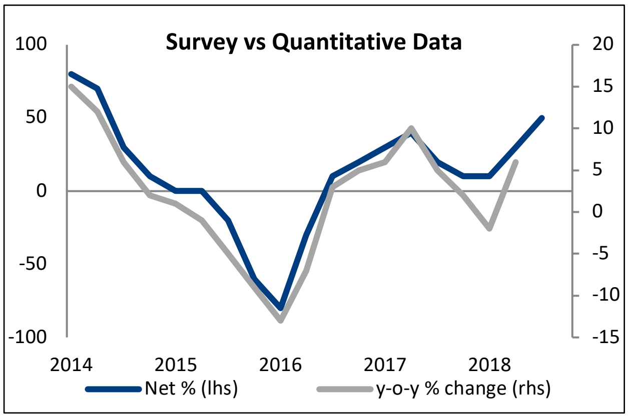
The unique units of measurement of qualitative surveys

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 (3qcma) 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 (μ-σ) and above (μ+σ) 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: Δσ)

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.