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Building

Quarterly analysis of building activity

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Please refer to the glossary on the BER's **website** for explanations of technical terms.

Executive summary

After falling to 27 in 2024Q1, the **FNB/BER Building Confidence Index** gained eight points to register a level of 35 in 2024Q2.

The improvement in sentiment was broad-based, led by a 32-index-point increase in the business mood of hardware retailers.

Importantly, the higher sentiment was accompanied by better building activity, sales (for hardware retailers) and production (for building material manufacturers).

Also higher was activity among **architects**. Respondents expect a further – moderate – improvement in 2024Q3. As a result, the business confidence of architects was up by four points to 33. **Quantity surveyor** confidence also moved higher. This, however, was despite a deterioration in available work.

The sentiment of **residential builders** rose to 45 in 2024Q2, from 41 in 2024Q1. While activity and overall profitability were lower, tendering competition eased significantly. In addition, the rating of insufficient new demand as a business constraint moderated.

Non-residential builder activity increased markedly. This helped boost sentiment to 41, from 35 in 2024Q1. However, in contrast to residential builders, the rating of insufficient new demand as a business constraint increased to its highest level since the end of 2021.

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Introduction

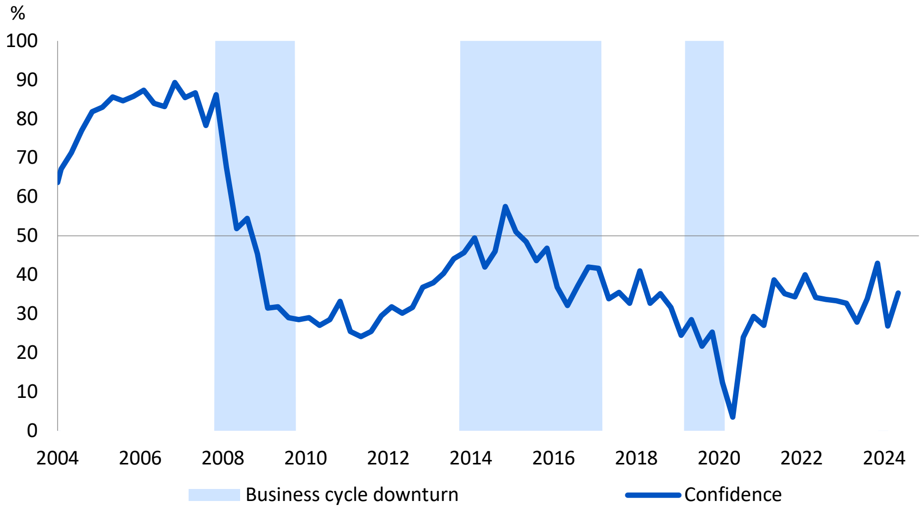
This report outlines some of the key findings of the BER's 2024Q2 Building and Construction Survey, including the **FNB/BER Building Confidence Index** as well as related data.

Summary of the 2024Q2[1] building survey results

After slipping to 27 in 2024Q1, the **FNB/BER Building Confidence Index** gained eight points to register a level of 35 in 2024Q2 (Figure 1). Despite the improvement the index remains below its long-term average.

The latest reading means that 65% of respondents are dissatisfied with prevailing business conditions.

Figure 1: FNB/BER Building Confidence Index



Source: BER

The following changes to confidence were observed compared to 2024Q1: Hardware retailers (+32), main contractors, sub-contractors and quantity surveyors (+5), and architects (+4). Sentiment among manufacturers of building material remained at 0.

Underpinning the better business mood was an improvement in building activity (for main and building sub-contractors), work for architects, as well as retail hardware sales. This offset the effect of a slight deterioration in overall profitability and still high rating of insufficient demand as a business constraint.

[1] The survey was conducted between 9 and 27 May 2024.

ARCHITECT ACTIVITY IMPROVES UNEXPECTEDLY IN Q2

Whereas a net 34% of **architects** reported lower average activity[2] compared to a year earlier in 2024Q1, only 23% stated as such in 2024Q2 (Table 1). This was a better result than respondents predicted. As a result, confidence rose by four points to 33 in 2024Q2, from 29 in 2024Q1 (Figure 2).

This outcome is more upbeat than the data on building plans passed. According to Statistics South Africa (Stats SA), the real value of building plans passed declined by 13.4% year-on-year (y-o-y) in 2024Q1, following a 27% contraction in 2023Q4. The value of residential building plans passed registered the biggest decline (15.8% y-o-y) with the value of non-residential plans passed 11.7% lower compared to 2023Q1. After contracting by 13.4% in 2023Q4, the value of plans passed for additions and alterations reduced by 9.9% y-o-y in 2024Q1.

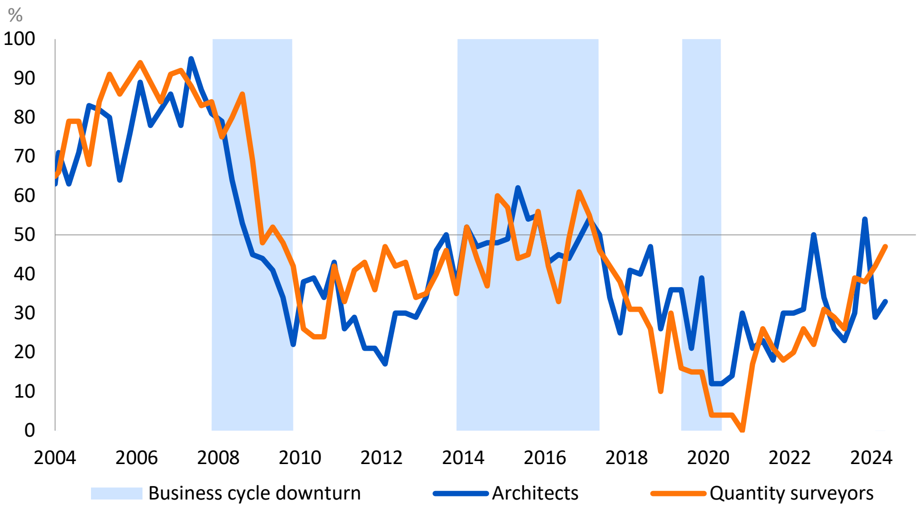
Table 1: Average activity (Net%)

	2024Q1	2024Q2	2024Q3 (expected)
Architects	-34	-23	-19
Quantity surveyors	-8	-19	-9

Source: BER

Based on the survey results, a further improvement (or rather a further slowdown in the pace of the decline) in building plans passed is expected in 2024Q2

Figure 2: Architect and quantity surveyor business confidence



Source: BER

In contrast to architects, the index measuring the growth in work (on average[3]) for **quantity surveyors** fell to -19, from -8 in 2024Q1. Despite the deterioration, the index remains above its long-term average (of -24). That activity is still better than average partially explains why sentiment moved five points higher to 47 in 2024Q2.

[2] Activity for architects is the average of the net balance for projects at sketch plan phase, at working drawing stage and commissioned project stage.

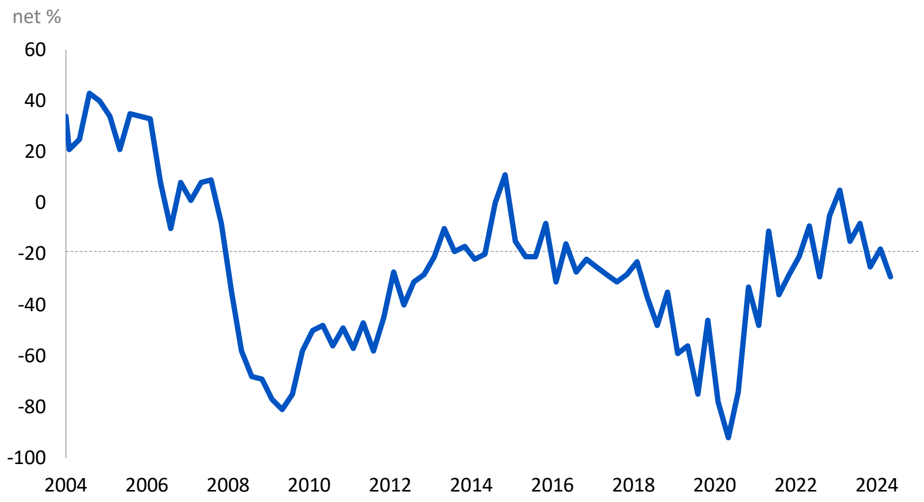
[3] Activity for quantity surveyors, is the average of activity at sketch plan stage, at bills of quantity stage and commissioned projects stage.

RESIDENTIAL ACTIVITY LOSES MOMENTUM IN Q2

After recovering to -18% in 2024Q1, the index measuring the growth in residential building activity worsened to -29% in 2024Q2 (Figure 3). Despite being weaker, the index is still close to its long-run average of -26%.

According to Stats SA, the real value of investment in residential buildings fell by 16.1% y-o-y in 2024Q1. These survey results suggest that residential building demand remained under severe pressure in 2024Q2.

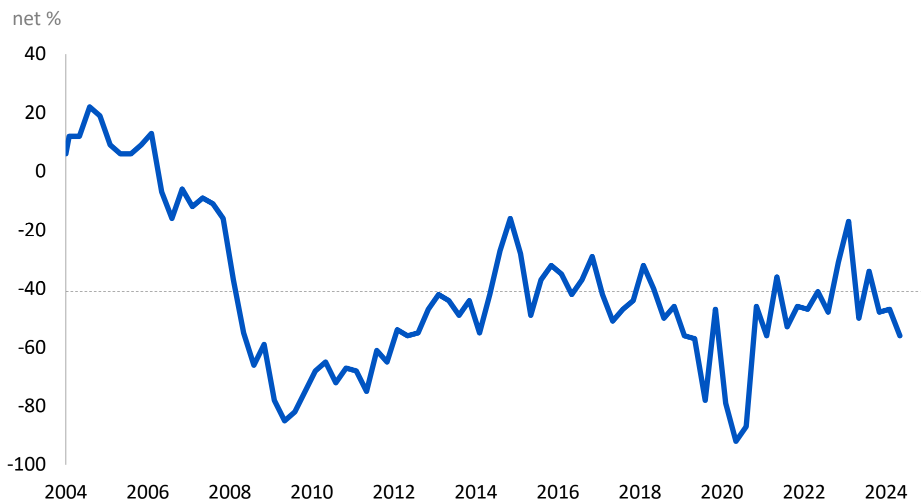
Figure 3: Residential builders, growth in activity



Source: BER

The deterioration in activity also weighed on overall profitability. A net 56% of respondents indicated that overall profitability was lower in 2024Q2 than a year ago, from 47% that stated as such in 2024Q1 (Figure 4). This marks the worst level of the index since 2020. In contrast, the index measuring tendering price competition eased to a net balance of 34%, from 56% in 2024Q1.

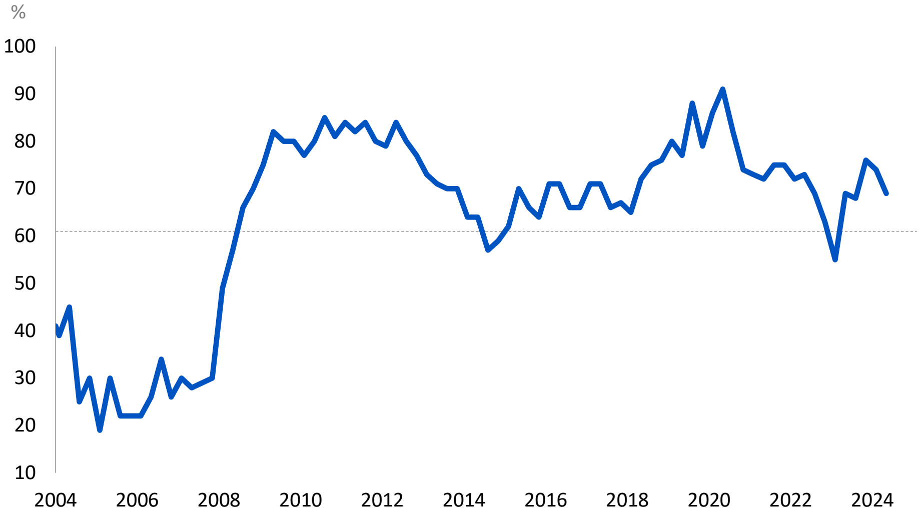
Figure 4: Residential builders, overall profitability



Source: BER

While current conditions (in terms of activity and overall profitability) were weaker, the outlook was less downbeat in that the volume of available work is not predicted to deteriorate further. The net number of respondents that expect activity growth to be lower next quarter is broadly similar to this quarter. Importantly, the rating of insufficient demand as a business constraint (a proxy for order books) moved to 69%, from 74% in 2024Q1 (Figure 5).

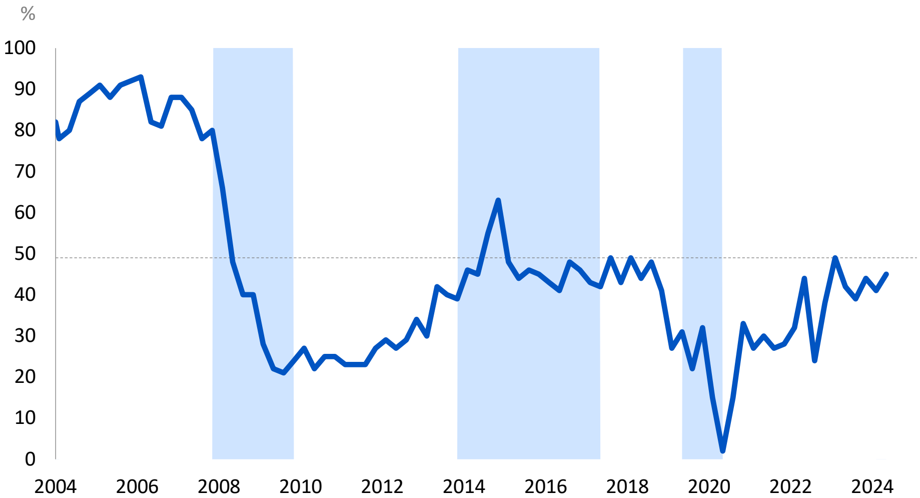
Figure 5: Residential builders, insufficient new demand as a business constraint



Source: BER

In all, residential builder confidence moved five index points higher to 45 in 2024Q2 (Figure 6).

Figure 6: Residential builder confidence

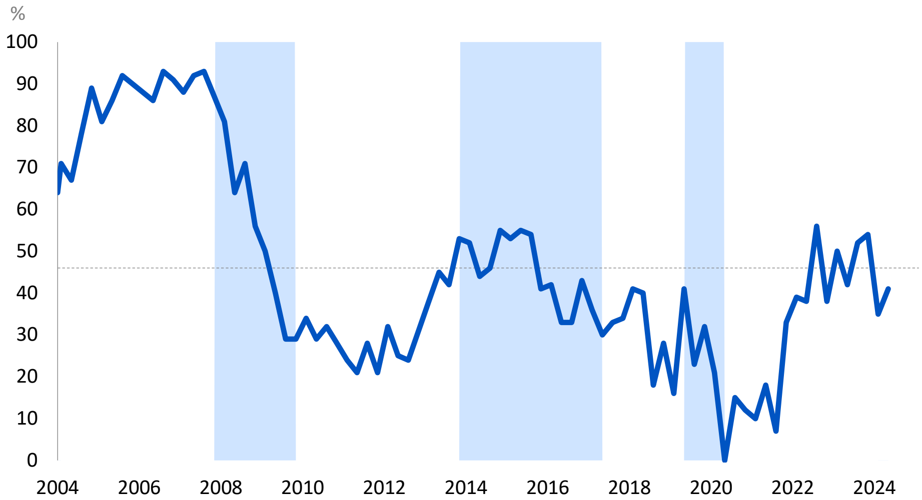


Source: BER

NON-RESIDENTIAL BUILDER SENTIMENT ALSO HIGHER

After falling to 35 in 2024Q1, the business confidence of **non-residential builders** regained six index points to register a level of 41 in 2024Q2 (Figure 7).

Figure 7: Non-residential builder confidence

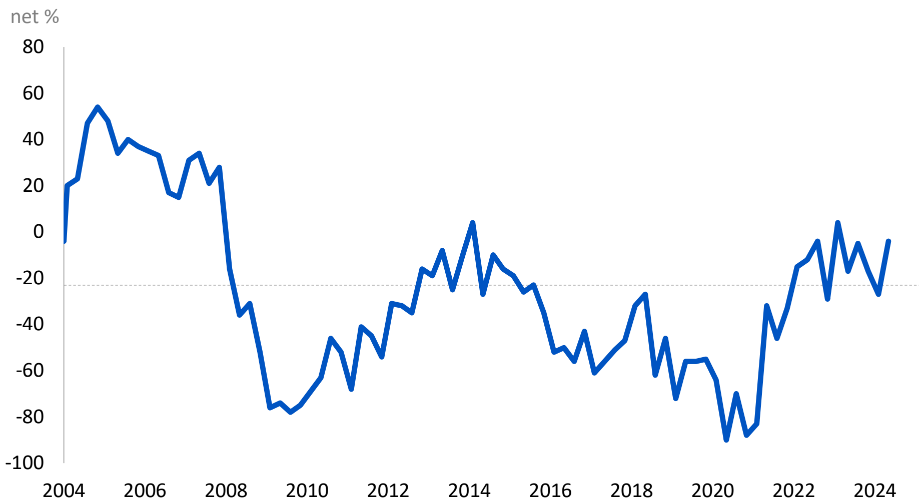


Source: BER

Even though the business mood improved, it was lower than the activity index would suggest. Whereas a net 27% of respondents reported lower activity growth compared to a year earlier in 2024Q1, only 4% indicated as such in 2024Q2 (Figure 8). It is likely then that real non-residential building investment improved from the dismal 13.8% annual contraction reported by Stats SA for 2024Q1.

Despite the higher activity, respondents are more pessimistic about prospects for work next quarter.

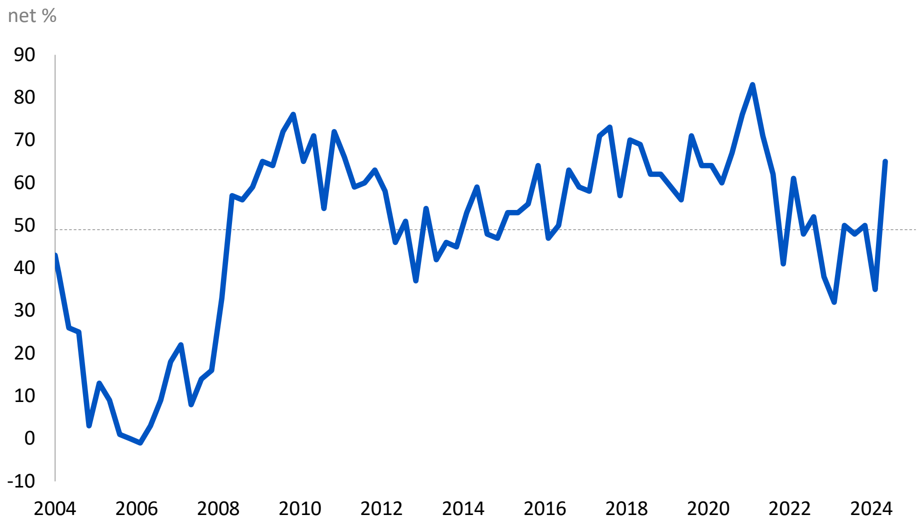
Figure 8: Non-residential builders, growth in activity



Source: BER

While activity improved, tendering competition jumped sharply. On balance, this weighed on overall profitability and explains the restrained uptick in sentiment amid noticeably better activity. A net 65% of respondents indicated that tendering price competition was keener than a year earlier, from 35% in 2024Q1 (Figure 9). This marks the highest level of the index since 2021Q2.

Figure 9: Non-residential builders, tendering price competition



Source: BER

In terms of the business constraints, the most concerning was the rating of insufficient demand which corroborates with respondents' expectations for weaker growth in work next quarter. Seventy-six per cent of respondents cited the lack of new building work as a constraint to business operations, from 72% in 2024Q1. Positively, the rating of the shortage of building materials as a business constraint fell to its lowest level since 2020Q1 (Table 2).

Table 2: Non-residential builders, constraints to business operations

Constraint (%)	2024Q1	2024Q2	Long-term average
Skilled labour	65	57	51
Building materials	39	26	32
Insufficient demand	72	76	66
Access to credit[4]	30	20	25

Source: BER

[4] Since 2012

Conclusion

The eight-point rise in the **FNB/BER Building Confidence Index** to 35 is largely due to the jump in sentiment among hardware retailers.

Importantly, the better overall business mood was supported by higher building activity and sales (in the case of retailers).

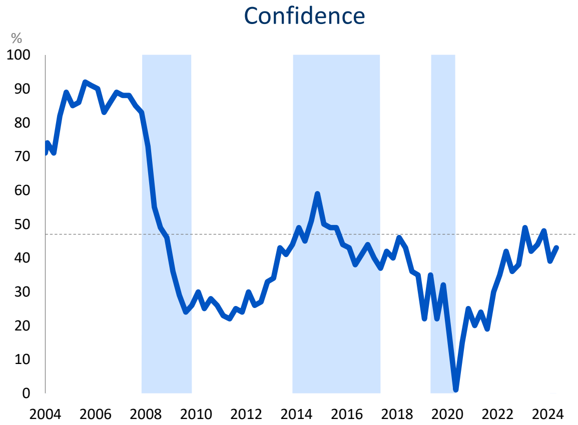
With regard to building sector activity, growth seems to be under more strain in the residential sector (although the index measuring work is close to its long-term average) than in the non-residential sector in 2024Q2. This improvement in building activity as reported by survey respondents is, however, at odds with official data which paints a very bleak picture of building demand over the past few quarters.

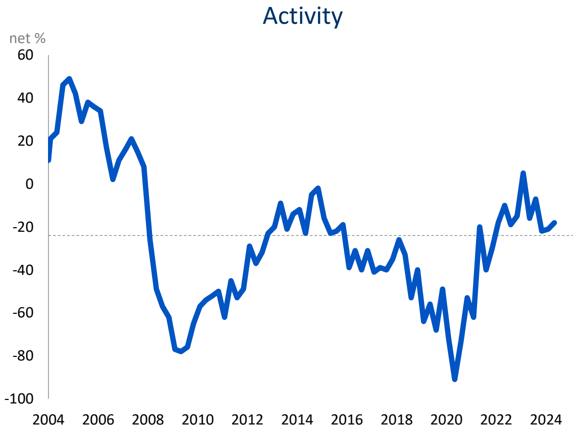
Looking ahead, the building sector still faces significant headwinds. On the more optimistic side, there was an uptick in activity among architects which is expected to persist in 2024Q3. This should bode well for the building sector.

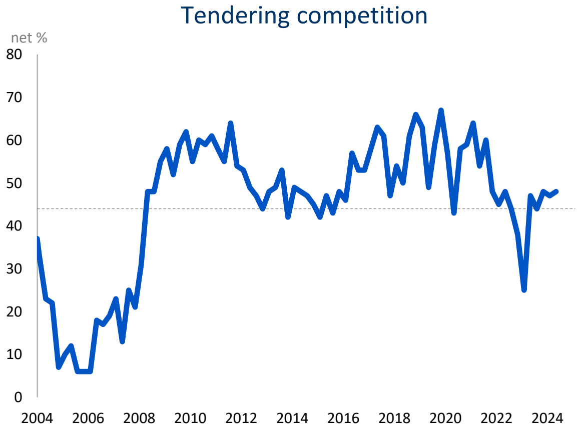
Survey results

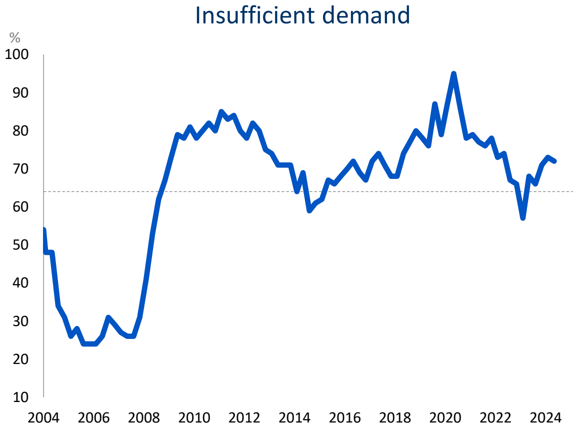
BUILDING: TOTAL[5]

Indicator	Unit	μ-σ	μ	μ+σ	22Q3	22Q4	23Q1	23Q2	23Q3	23Q4	24Q1	24Q2	Δ	σ Δ
Confidence	%	23	45	67	36	38	49	42	44	48	39	**43**	4	7
Activity	Net %	-58	-27	5	-19	-15	5	-16	-7	-22	-21	**-18**	3	13
Tendering competition	Net %	29	45	61	44	38	25	47	44	48	47	**48**	1	7
Insufficient demand	%	46	65	84	67	66	57	68	66	71	73	**72**	-1	5





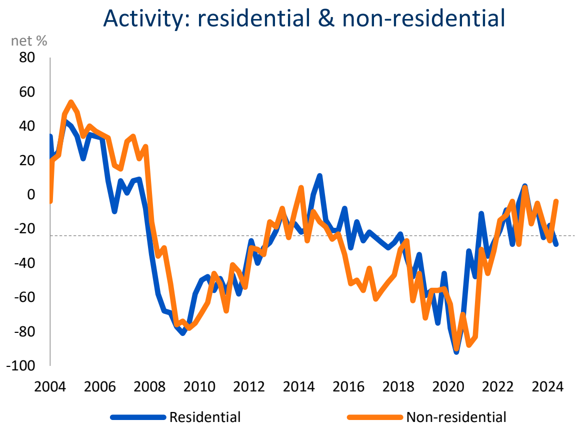


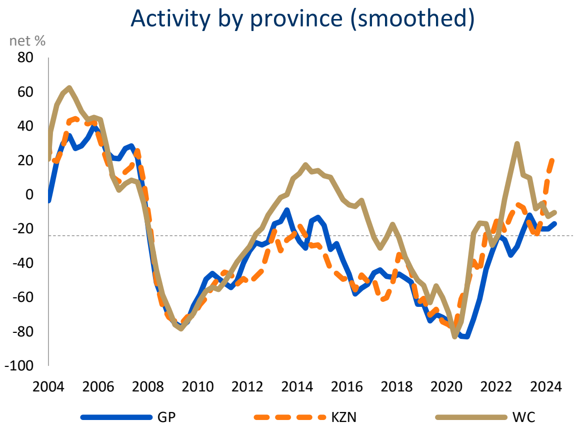


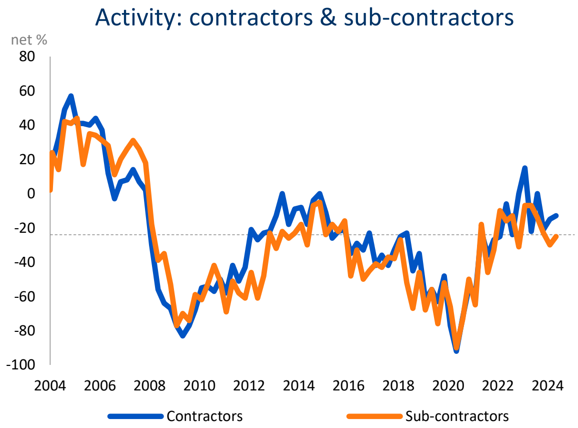
[5] Combined residential and non-residential building activity of contractors and sub-contractors.

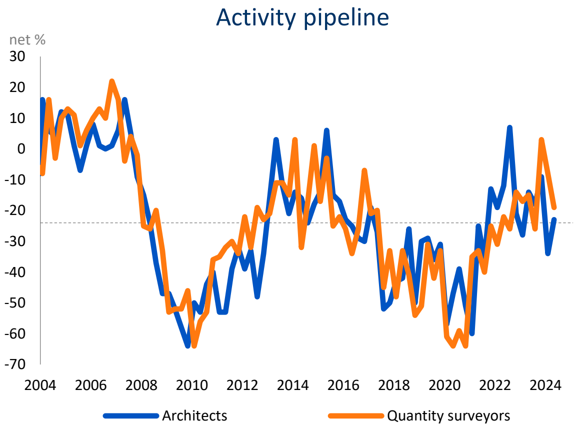
μ - average
σ – standard deviation
Δ – change from previous period
σ_Δ – volatility (standard deviation of the changes)
All above calculated over the last 20 years
See technical note for further details

BUILDING: TOTAL







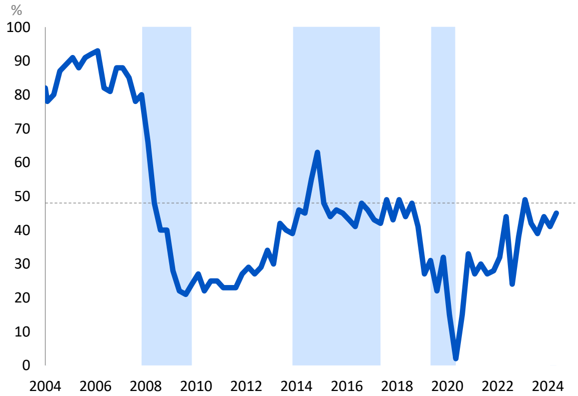


μ - average
σ – standard deviation
Δ – change from previous period
σ_Δ – volatility (standard deviation of the changes)
All above calculated over the last 20 years
See technical note for further details

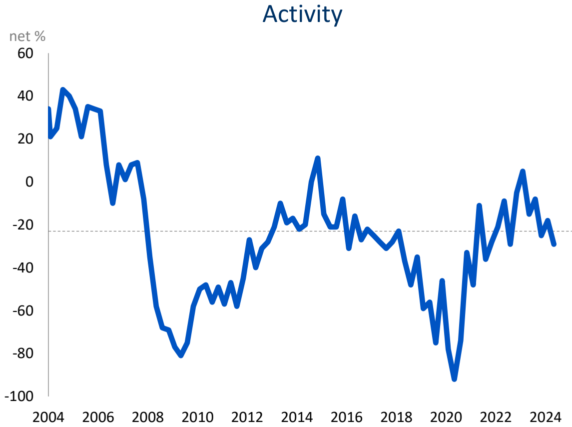
BUILDING: RESIDENTIAL[6]

Indicator	Unit	μ-σ	μ	μ+σ	22Q3	22Q4	23Q1	23Q2	23Q3	23Q4	24Q1	24Q2	Δ	σ Δ
Confidence	%	23	45	67	24	38	49	42	39	44	41	**45**	4	8
Activity	Net %	-57	-26	4	-29	-5	5	-15	-8	-25	-18	**-29**	-11	15
Seasonally adjusted	Net %	-56	-26	3	-21	-9	5	-19	-1	-28	-18	**-33**	-15	13
Tendering competition	Net %	28	43	57	39	39	19	46	42	47	56	**34**	-22	11
Insufficient demand	%	45	65	84	69	63	55	69	68	76	74	**69**	-5	6

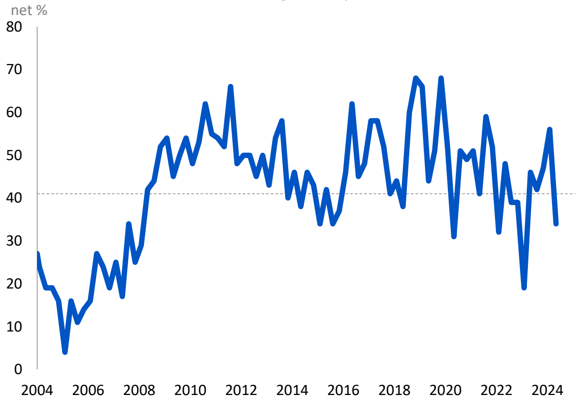
Confidence



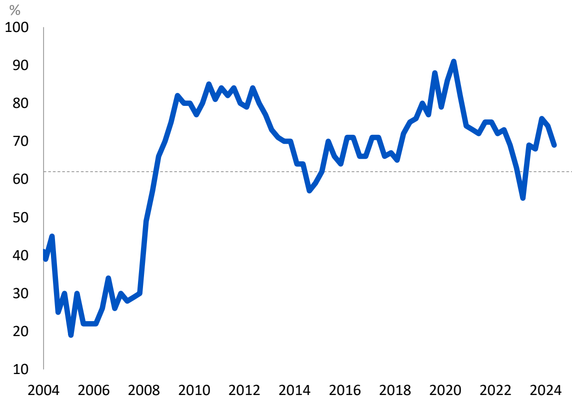
Activity



Tendering competition



Insufficient demand

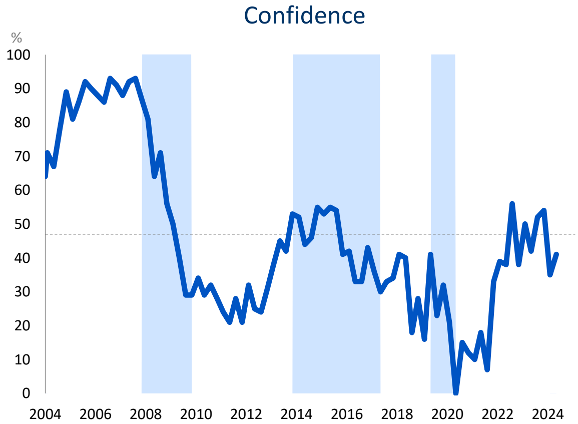


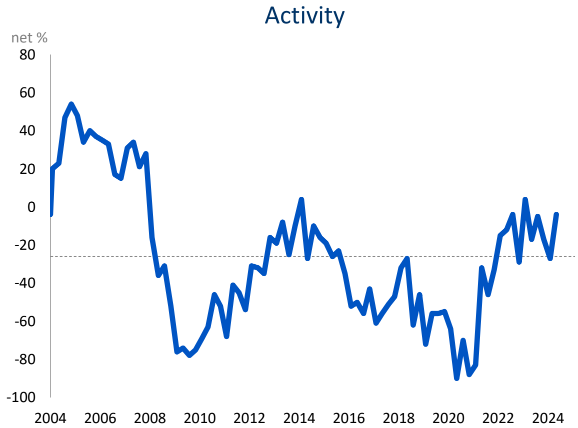
[6] The residential sector covers the construction of and additions to houses, town houses and flats for which building plans were submitted to a local authority. Other sporadic residential structures, such as tourist accommodation and casinos, and informal structures are not covered. The section on the building material retail trade provides additional information on activity related to additions and the informal sector.

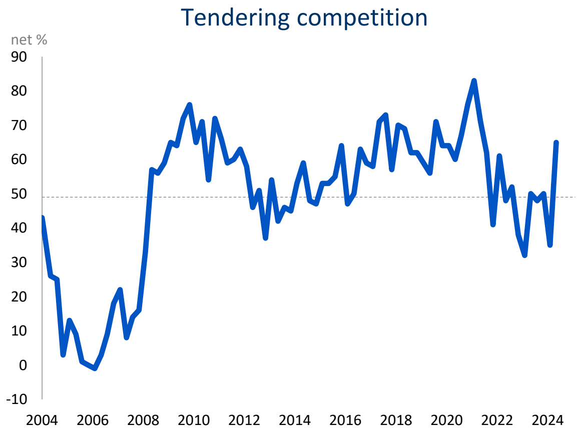
μ - average
σ – standard deviation
Δ – change from previous period
$σ_Δ$ – volatility (standard deviation of the changes)
All above calculated over the last 20 years
See technical note for further details

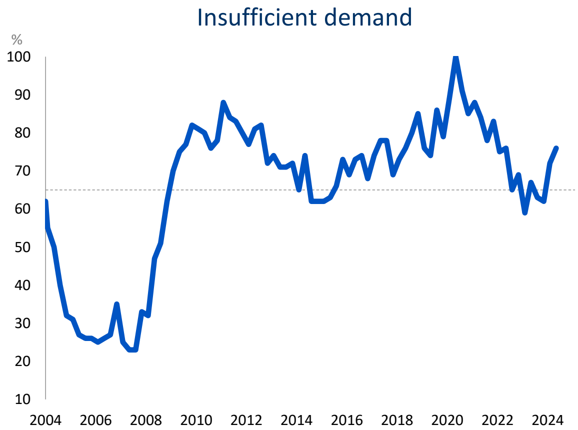
BUILDING: NON-RESIDENTIAL[7]

Indicator	Unit	μ-σ	μ	μ+σ	22Q3	22Q4	23Q1	23Q2	23Q3	23Q4	24Q1	24Q2	Δ	σ Δ
Confidence	%	21	46	70	56	38	50	42	52	54	35	**41**	6	10
Activity	Net %	-63	-27	9	-4	-29	4	-17	-5	-17	-27	**-4**	23	16
Tendering competition	Net %	28	49	70	52	38	32	50	48	50	35	**65**	30	10
Insufficient demand	%	46	66	86	65	69	59	67	63	62	72	**76**	4	6







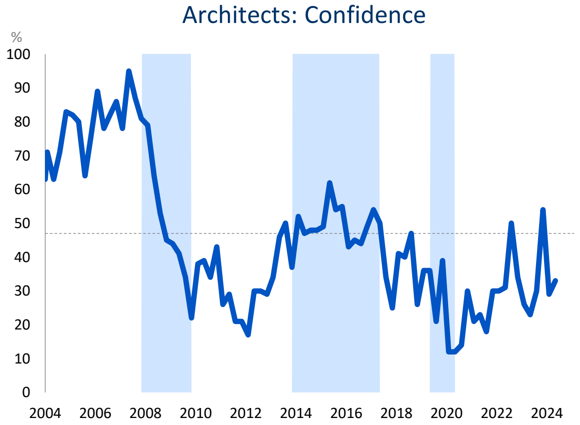


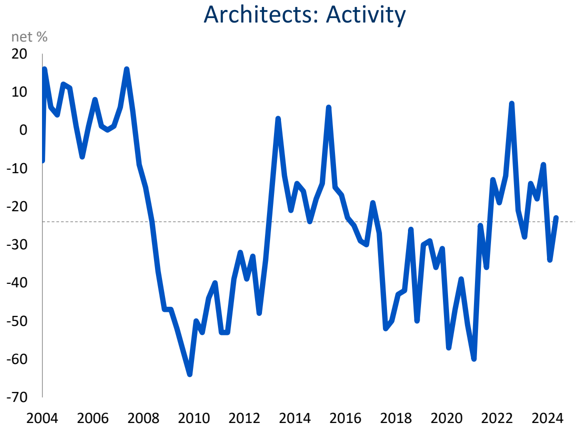
[7] The non-residential sector covers offices, banks, shops (retail), industrial (factories), warehouses and other structures (such as churches, sport clubs, schools and hospitals).

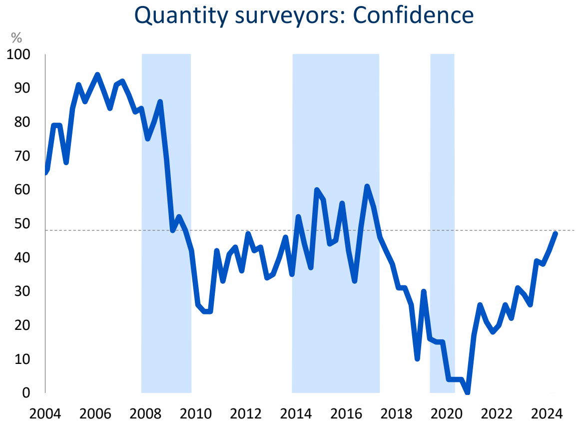
μ - average
σ – standard deviation
Δ – change from previous period
$σ_Δ$ – volatility (standard deviation of the changes)
All above calculated over the last 20 years
See technical note for further details

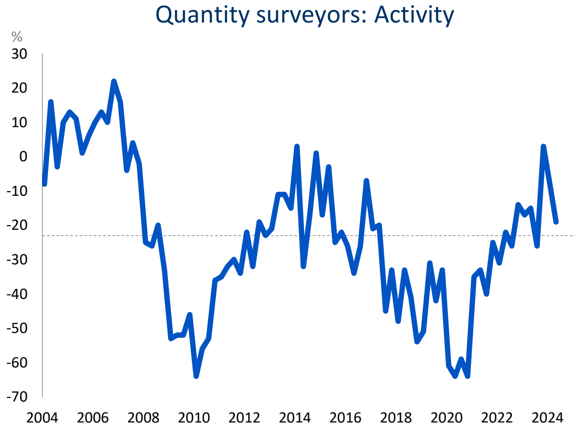
ARCHITECTS AND QUANTITY SURVEYORS[8]

Indicator	Unit	μ-σ	μ	μ+σ	22Q3	22Q4	23Q1	23Q2	23Q3	23Q4	24Q1	24Q2	Δ	σ Δ
Architects														
Confidence	%	24	45	66	50	34	26	23	30	54	29	**33**	4	11
Activity	Net %	-45	-25	-5	7	-21	-28	-14	-18	-9	-34	**-23**	11	12
Quantity surveyors														
Confidence	%	21	46	70	22	31	29	26	39	38	42	**47**	5	9
Activity	Net %	-45	-24	-3	-26	-14	-17	-15	-26	3	-8	**-19**	-11	13







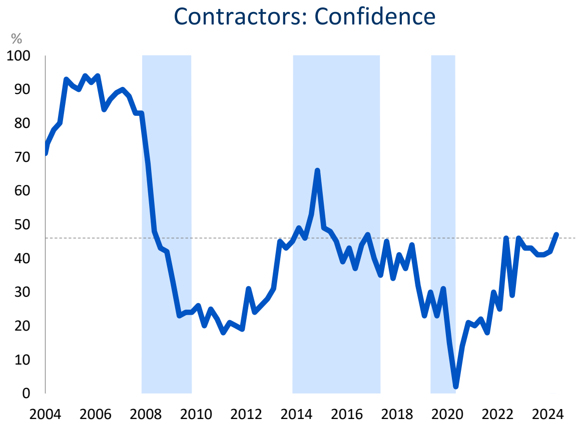


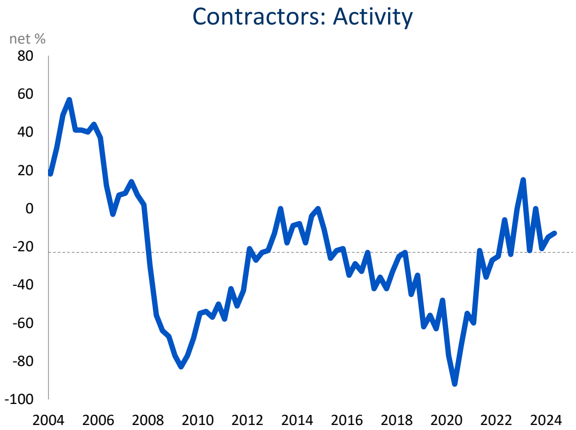
[8] According to the Standard Industrial Classification of all Economic Activities (SIC), architects and quantity surveyors are not part of the building and construction sector; they are classified as "business services". However, the BER includes them here, as they provide additional information on developments in the building sector.

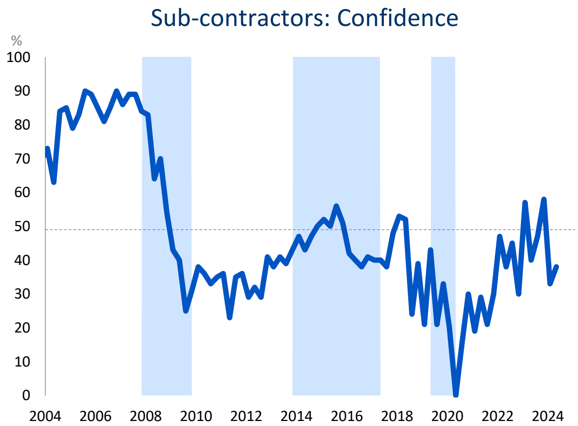
μ - average
σ – standard deviation
Δ – change from previous period
σ_Δ – volatility (standard deviation of the changes)
All above calculated over the last 20 years
See technical note for further details

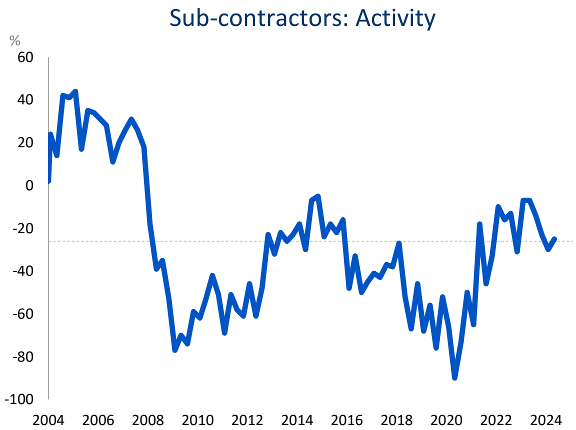
BUILDING: CONTRACTORS AND SUB-CONTRACTORS[9]

Indicator	Unit	μ-σ	μ	μ+σ	22Q3	22Q4	23Q1	23Q2	23Q3	23Q4	24Q1	24Q2	Δ	σ Δ
Contractors														
Confidence	%	20	44	68	29	46	43	43	41	41	42	**47**	5	8
Activity	Net %	-58	-25	8	-24	0	15	-22	0	-21	-15	**-13**	2	14
Sub-contractors														
Confidence	%	26	47	69	45	30	57	40	47	58	33	**38**	5	11
Activity	Net %	-61	-29	4	-13	-31	-7	-7	-14	-23	-30	**-25**	5	16









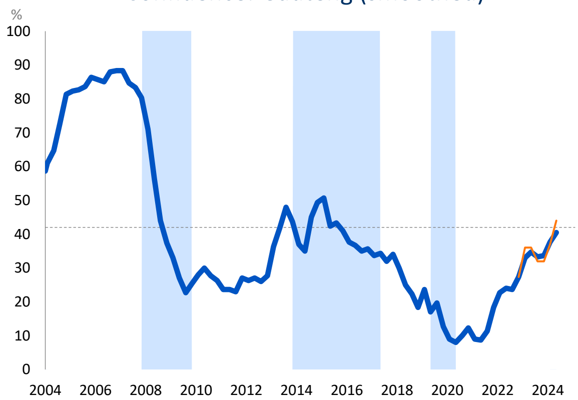
[9] Sub-contractors cover the building trades, such as electricians, plumbers, painters and shop fitters.

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

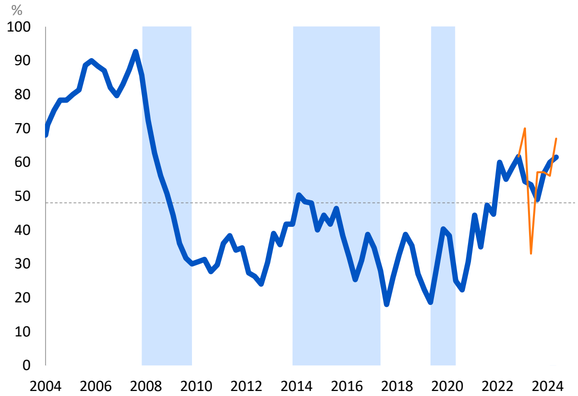
BUILDING: PROVINCES

Indicator	Unit	μ-σ	μ	μ+σ	22Q3	22Q4	23Q1	23Q2	23Q3	23Q4	24Q1	24Q2	Δ	σ_Δ
Gauteng														
Confidence	%	15	40	64	19	27	36	36	32	32	37	**44**	7	10
Smoothed	%	16	40	63	24	27	33	35	33	34	38	**41**	3	5
Activity	Net %	-67	-32	3	-42	-44	-5	-14	-17	-26	-17	**-17**	0	17
Smoothed	Net %	-65	-32	1	-35	-30	-21	-12	-19	-20	-20	**-17**	3	8
KwaZulu-Natal														
Confidence	%	24	47	71	55	60	70	33	57	57	56	**67**	11	18
Smoothed	%	27	47	68	58	62	54	53	49	57	60	**62**	2	6
Activity	Net %	-67	-30	6	-27	0	10	-33	-29	-14	0	**50**	50	23
Smoothed	Net %	-64	-31	3	-12	-6	-8	-17	-25	-14	12	**25**	13	10
Western Cape														
Confidence	%	23	49	74	45	43	53	42	48	61	32	**44**	12	9
Smoothed	%	24	49	73	39	47	46	48	50	47	46	**38**	-8	5
Activity	Net %	-54	-17	21	30	22	37	-25	17	-17	-16	**-5**	11	19
Smoothed	Net %	-52	-17	19	13	30	11	10	-8	-5	-13	**-11**	2	10

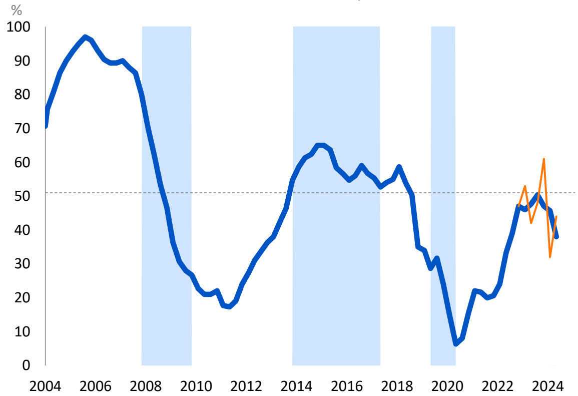
Confidence: Gauteng (smoothed)



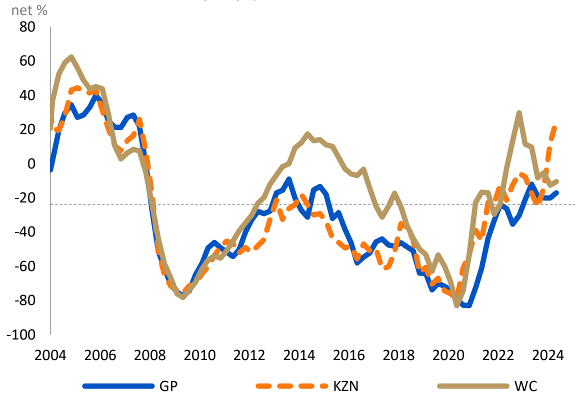
Confidence: KwaZulu-Natal (smoothed)



Confidence: Western Cape (smoothed)



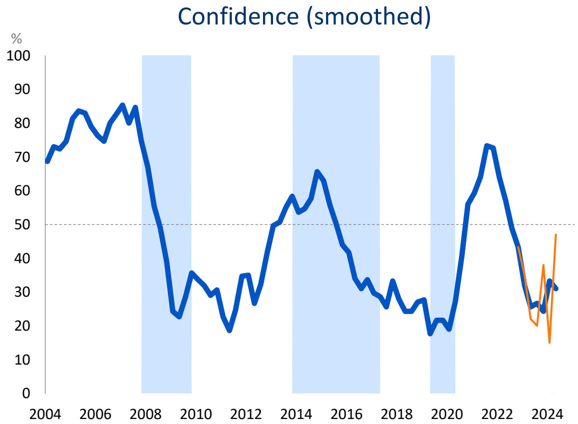
Activity by province (smoothed)

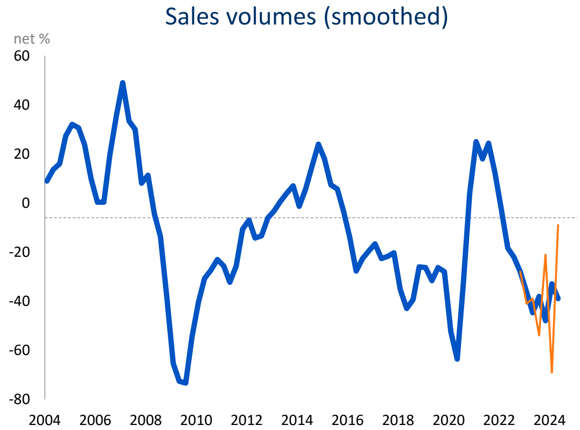


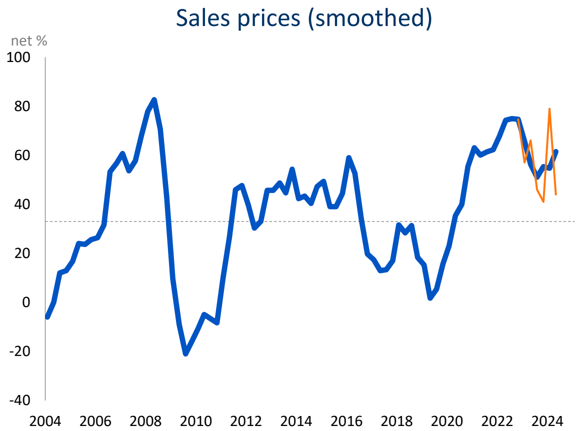
μ - average
σ – standard deviation
Δ – change from previous period
σ_Δ – volatility (standard deviation of the changes)
All above calculated over the last 20 years
See technical note for further details

BUILDING MATERIALS RETAIL TRADE[10]

Indicator	Unit	μ-σ	μ	μ+σ	22Q3	22Q4	23Q1	23Q2	23Q3	23Q4	24Q1	24Q2	Δ	σ Δ
Confidence	%	23	46	69	56	39	35	22	20	38	15	**47**	32	16
Smoothed	%	26	46	67	49	43	32	26	27	24	33	**31**	-2	6
Sales volumes	Net %	-44	-12	20	-14	-29	-41	-39	-54	-21	-69	**-9**	60	27
Smoothed	Net %	-39	-12	15	-22	-28	-36	-45	-38	-48	-33	**-39**	-6	12
Sales prices	Net %	9	37	65	93	74	57	66	46	41	79	**44**	-35	22
Smoothed	Net %	13	37	61	75	75	66	56	51	55	55	**62**	7	10







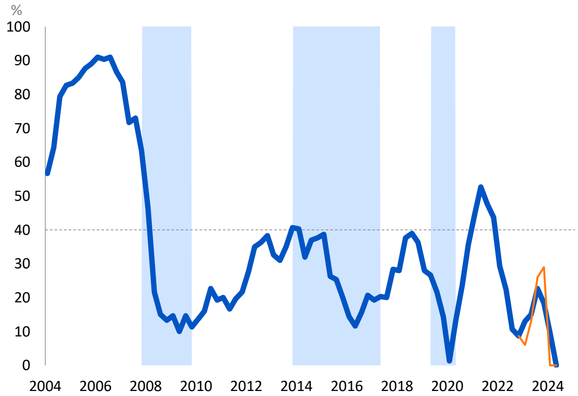
[10] Hardware, paint, glass and other building material retailers. Developments in the building material retail trade provides additional information on activity related to additions and the informal sector.

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

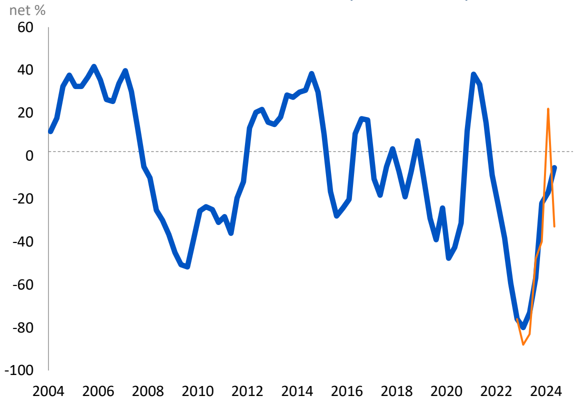
BUILDING MATERIALS MANUFACTURING[11]

Indicator	Unit	μ-σ	μ	μ+σ	22Q3	22Q4	23Q1	23Q2	23Q3	23Q4	24Q1	24Q2	Δ	σ_Δ
Confidence	%	8	35	62	0	20	6	13	26	29	0	**0**	0	17
Smoothed	%	10	35	60	11	9	13	15	23	18	10	**0**	-10	7
Production volume	Net %	-43	-6	31	-71	-69	-88	-83	-48	-40	22	**-33**	-55	32
Smoothed	Net %	-37	-6	26	-59	-76	-80	-73	-57	-22	-17	**-6**	11	14
Production costs	Net %	32	55	78	66	57	100	78	46	12	40	**67**	27	28
Smoothed	Net %	39	55	71	56	74	78	75	45	33	40	**54**	14	10
Expected conditions in 12m	Net %	-21	5	31	0	-39	-16	-29	21	-15	51	**-33**	-84	30
Smoothed	Net %	-14	5	24	-19	-18	-28	-8	-8	19	1	**9**	8	11

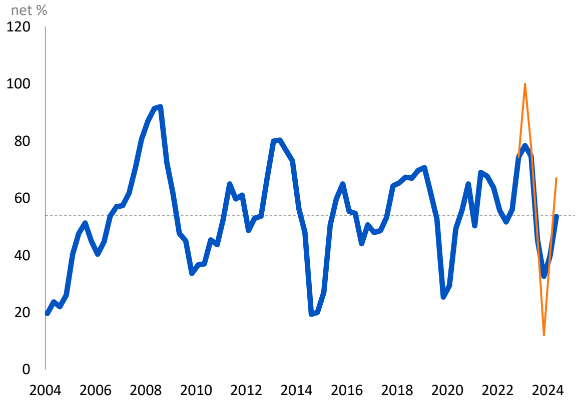
Confidence (smoothed)



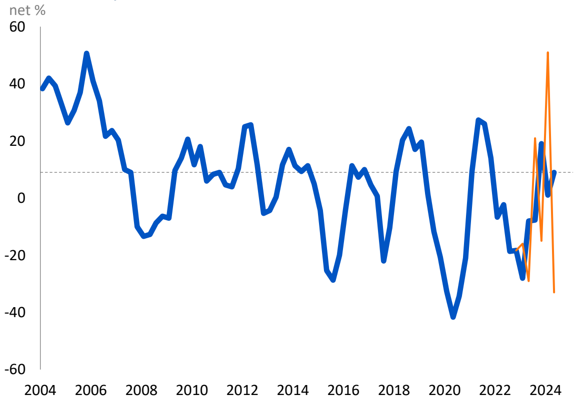
Production volume (smoothed)



Production costs (smoothed)



Expected conditions in 12m (smoothed)

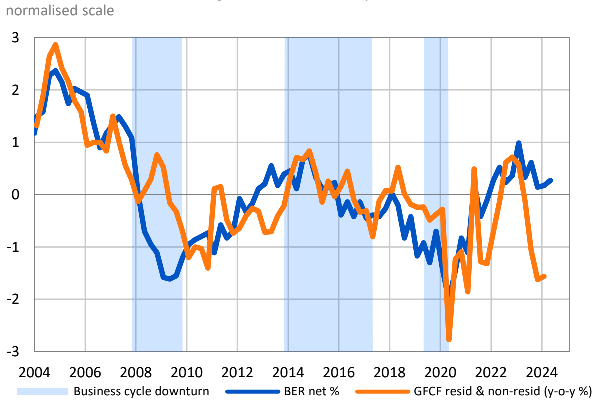


[11] Covering glass and non-metallic mineral (i.e. bricks, tiles, cement, prefab concrete, asphalt and mica products) manufacturing.

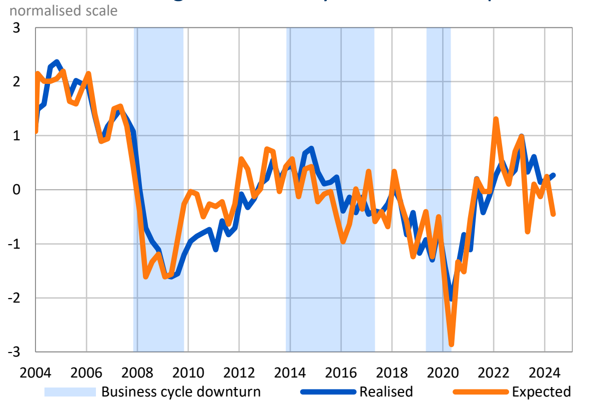
μ - average
σ – standard deviation
Δ – change from previous period
σ_Δ – volatility (standard deviation of the changes)
All above calculated over the last 20 years
See technical note for further details

SUMMARY

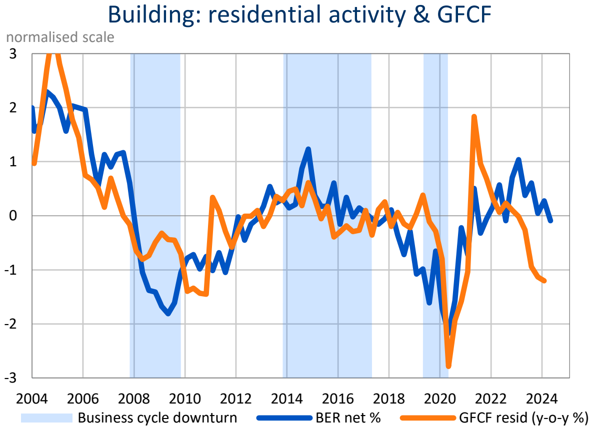
Building: total activity & GFCF



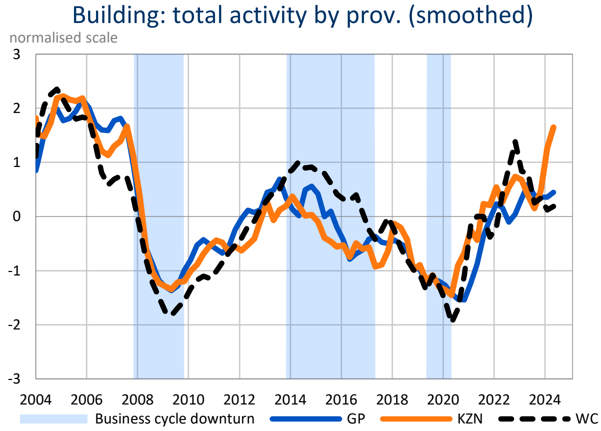
Building: total activity: realised & exp.



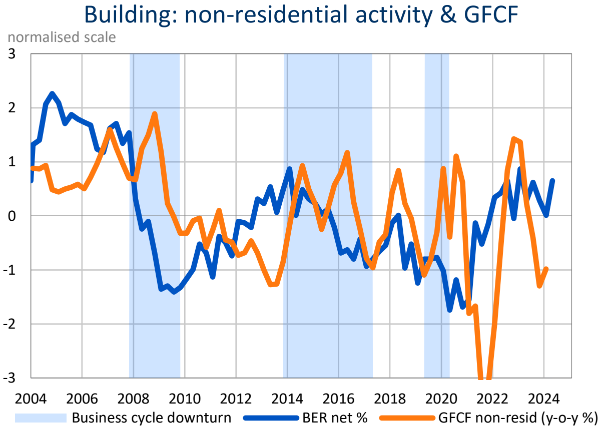
Building: residential activity & GFCF



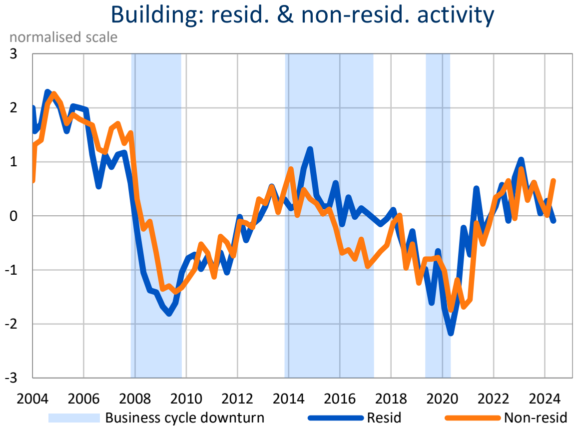
Building: total activity by prov. (smoothed)



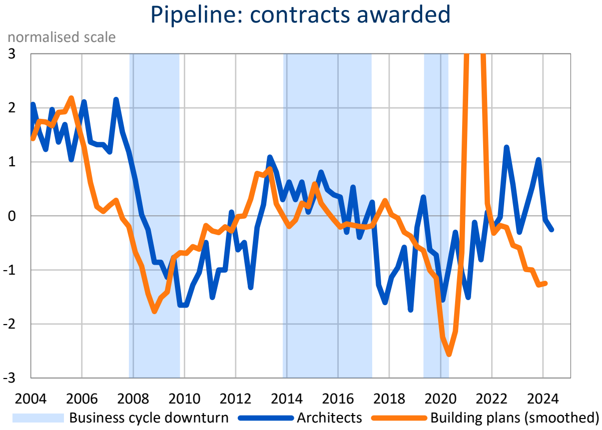
Building: non-residential activity & GFCF



Building: resid. & non-resid. activity



Pipeline: contracts awarded



BUILDING PLANS PASSED AND COMPLETED

Indicator (thousand sqm)	South Africa	Western Cape	Eastern Cape	Northern Cape	Free State	KwaZulu-Natal	North West	Gauteng	Mpuma-langa	Limpopo
Recorded building plans passed					**24Q1**					
Dwelling-houses < 80 square metres	75.9	16.2	1.3	7.9	1.4	2.9	1.0	41.9	2.7	0.6
Dwelling-houses >= 80 square metres	726.0	257.9	41.7	7.9	25.7	71.4	39.9	196.0	46.9	38.7
Flats and townhouses	427.0	163.5	7.4	0.0	7.1	71.0	4.5	158.8	7.2	7.4
Other residential buildings	10.6	2.8	0.0	0.0	1.1	1.9	0.8	2.9	1.2	0.0
Office and banking space	18.4	3.9	2.8	0.9	0.2	7.8	0.1	0.4	1.4	0.7
Shopping space	129.0	13.3	1.0	2.4	40.9	7.9	31.0	9.5	13.6	9.3
Industrial and warehouse space	264.9	64.1	28.8	0.0	8.1	20.1	2.4	104.1	31.6	5.7
Other non-residential buildings	98.7	21.2	3.6	0.0	10.5	6.6	10.2	32.6	0.0	13.9
Additions and alterations: Dwelling-houses	513.3	155.2	47.9	7.2	18.4	72.1	22.3	151.0	32.2	7.1
Additions and alterations: Other buildings	173.9	63.4	23.4	0.1	3.7	29.9	4.7	39.2	3.5	6.1
Total	**2438**	**761**	**158**	**26**	**117**	**292**	**117**	**736**	**140**	**89**
y-o-y % change	**-13.0**	**-17.7**	**2.1**	**8.2**	**47.2**	**23.3**	**20.3**	**-28.5**	**-18.1**	**6.1**
Buildings reported as completed					**24Q1**					
Dwelling-houses < 80 square metres	62.8	20.4	4.4	0.2	0.1	1.9	3.8	31.0	0.5	0.7
Dwelling-houses >= 80 square metres	398.1	143.1	18.5	2.6	6.5	33.0	24.8	144.8	12.3	12.7
Flats and townhouses	233.9	85.2	19.9	0.0	0.0	20.3	0.5	103.4	1.9	2.7
Other residential buildings	12.8	10.2	0.0	1.2	1.0	0.4	0.0	0.0	0.0	0.0
Office and banking space	19.4	7.6	0.0	0.0	0.3	0.0	0.5	1.3	9.7	0.0
Shopping space	42.5	0.0	0.0	0.0	0.1	34.2	2.9	4.8	0.0	0.4
Industrial and warehouse space	107.1	33.6	2.0	0.6	0.0	12.2	3.4	35.6	12.6	7.1
Other non-residential buildings	13.7	8.2	0.1	0.0	0.0	2.6	0.0	2.8	0.0	0.0
Additions and alterations: Dwelling-houses	172.0	49.6	44.4	3.3	7.6	21.4	8.9	34.1	1.3	1.5
Additions and alterations: Other buildings	91.5	24.8	24.6	0.8	0.3	14.2	8.5	17.5	0.0	0.8
Total	**1154**	**383**	**114**	**9**	**16**	**140**	**53**	**375**	**38**	**26**
y-o-y % change	**-16.9**	**-8.4**	**63.9**	**-25.9**	**0.0**	**-30.7**	**-3.7**	**-28.9**	**-16.1**	**-38.9**

Source: Statistics South Africa

Technical note

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, tendering prices, business conditions, constraint indicators 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 METHOD

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 building activity 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. The BER also took responsibility for a quantitative building cost survey in that year. The breadth of the building survey was expanded on two occasions: 1) architects and quantity surveyors were added in 1986 in order to track developments along the whole building pipeline (i.e. from the initiation to the completion of projects) and 2) civil engineering contractors were added in 1997.

Consult the BER web page (**www.ber.ac.za**) for more information about the business tendency and building cost survey methods.

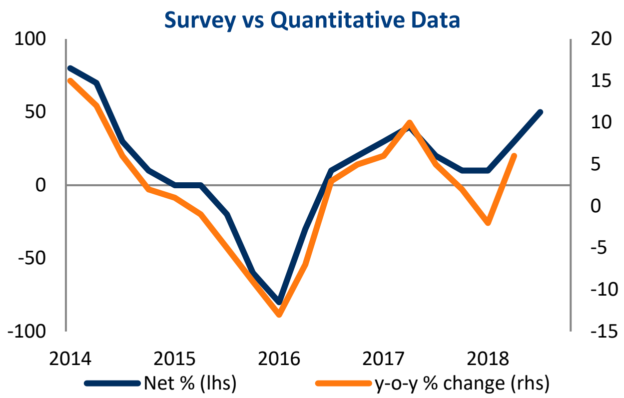
THE UNIQUE UNITS OF MEASUREMENT OF QUALITATIVE SURVEYS

Net percentage (net %)

The responses related to the change in activity, prices, employment, business conditions etc. are presented as a "net percentage" (also called a "net balance" or a "net majority"). If, for example, the percentages of respondents rating building activity 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 activity. The net percentage is calculated as the percentage of respondents rating "activity" 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 activity 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 and constraints 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.

In the case of the constraints, respondents have to rate if a particular issue – for instance, a shortage of skilled labour – "seriously", "slightly" or "not at all" hampers their activity. Composite constraint indices are calculated by weighting the responses as follows: The answers of respondents rating a particular constraint as "serious" are weighted by 0.67%; "slightly" by

0.33% and “not a constraint at all” are discarded. The results are then multiplied by 100/67 = 1.49 to convert it to an index that can vary between zero and 100.

Care must be taken when making inferences from the constraints indices given that the list of constraints (issues) remains unchanged over time. Each constraint ought to be analysed relative to its own historical performance rather than comparing the ratings of the different constraints at a specific point in time. The latter inference would be more appropriate if respondents had to list all issues hampering their activity at a particular point in time and rank them in order of their impact.

Theoretically, the confidence and constraints series can vary between a minimum of zero and a maximum of 100. A value of zero would reflect an extreme lack of confidence/no limitation at all and 100 extreme confidence/complete limitation. 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

Three-quarter centred moving average (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: σ_{Δ})

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.