Executive summary

The COVID-19-related near total economic shutdown had a marked effect on building and civil construction activity in 2020Q2, with many firms only able to operate fully from 1 June 2020.

**General building**

Confidence fell to 17 in 2020Q2, from 33 in 2020Q1, a new all-time low.

From a Grade’s perspective, the biggest decline was registered among Grades 7 & 8 (-31), followed by Grades 5 & 6 (-17) and Grades 3 & 4 (-9). In the case of Grades 7 & 8, confidence is now at zero.

Provincially, the Western Cape registered the biggest drop in confidence to 7 in 2020Q2, from 43 in 2020Q1. This was reflected in activity which also deteriorated more noticeably in the Western Cape than the other regions. Confidence in KwaZulu-Natal and the Eastern Cape was also lower, but unchanged in Gauteng.

**Civil engineering**

After dropping to 16 in 2020Q1, civil engineering confidence fell to a new record-low of 12 in 2020Q2.

Confidence was down among Grades 3 & 4 and 7 & 8. However, business sentiment improved somewhat among Grades 5 & 6. This was despite persistently weak growth in activity.

The Western Cape saw confidence drop to 0 in 2020Q2. In contrast, business sentiment improved in KwaZulu-Natal and the Eastern Cape (from 0 in 2020Q1).
Summary of the 2020Q2\textsuperscript{1} results

General Building (GB)

After rising somewhat to 33 in 2020Q2, the business confidence of GB shed 16 points to reach a level of 17 in 2020Q2 (Figure 1).

Figure 1: General builders business confidence

\textbf{COVID-19-related shutdown unsurprisingly weighing on activity in Q2}

Underpinning the lower confidence was a sharp drop in building activity. This is in step with broader economic developments during the quarter. Many firms were closed as part of the hard lockdown in April. While more companies were allowed to operate in May, most building firms were still prohibited. A full reopening of the building (and civil) construction sector was only possible from 1 June. A net 80\% of respondents reported lower activity growth in 2020Q2 compared to a year ago, from 53\% in 2020Q1.

Further to the weak activity, GB also experienced tougher credit conditions. In 2020Q1, 28\% of respondents acknowledged that access to credit was inadequate for normal business operations. This jumped to 47\% in 2020Q2, the highest since the question was first asked in 2012. In times of distress (such as the COVID-19-related shutdown) many firms would rely on credit facilities to tie them over until conditions improve. This seems to have been less available to contractors in 2020Q2.

\textsuperscript{1} The survey was conducted between 13 May and 1 June 2020 among cidb contractors in Grades 3 – 8. This is in contrast to the BER Building and Construction survey that also includes Grade 9 contractors.
Grades comparison

The following changes in confidence among the grades surveyed were registered in the quarter; Grades 3 & 4 (-9), Grades 5 & 6 (-17) and Grades 7 & 8 (-31). In the case of Grades 7 & 8, confidence fell to zero. This means that all respondents in those grades were dissatisfied with prevailing business conditions.

Like confidence, activity growth deteriorated across the board, but was most stark among grades 7 & 8. A net 77% of respondents reported lower activity growth compared to a year earlier in 2020Q1, 93% stated as such in 2020Q2 (Figure 2). In addition, the outlook also soured. The percentage of building contractors in Grade 7 & 8 that indicated the lack of new demand as a business constraint rose to 93, from 88 in 2020Q1. In contrast, fewer Grade 5 & 6 respondents (73%) noted that the lack of new business demand was a constraint to business operations compared to 2020Q1 (79%).

Figure 2: Activity per grade (smoothed)

Source: BER
Provincial comparison

From a provincial perspective, the following changes in confidence were recorded in 2020Q2: Western Cape (-36), Eastern Cape (-8), KwaZulu-Natal (-4). GB confidence in Gauteng was unchanged at 25.

Building activity growth in the Western Cape declined markedly, underpinning the drop in confidence to 7. A net 85% of respondents noted that building activity growth was lower in 2020Q2 compared to a year ago, up from 36% in 2020Q1 (Figure 3). Activity growth in Gauteng and KwaZulu-Natal was similarly weak. However, in these regions activity was already under significant pressure in 2020Q1.

Figure 3: Activity by province (smoothed)

Source: BER
Civil Engineering (CE)

CE confidence slipped to a new low of 12 in 2020Q2, from a then all-time low of 16 in 2020Q1 (Figure 4). This highlights the very precarious position that CE were in even before the COVID-19-related shutdown.

Figure 4: Total civil confidence

![Figure 4: Total civil confidence](image)

Source: BER

Respondents concerned about the lack of new work

Activity declined in the quarter. A net 86% indicated that activity growth was weaker compared to a year ago, up from 67% in 2020Q1. In addition, the percentage of firms that cited the lack of new construction demand to be a business constraint remained elevated at 84 (Figure 5). This suggests that prospects for activity in the sector (not referring to the resumption of activity following the “reopening” of the construction sector) remain downbeat.

Figure 5: CE contractors, rating of insufficient demand as a business constraint

![Figure 5: CE contractors, rating of insufficient demand as a business constraint](image)

Source: BER
Grades comparison

The confidence of CE in Grades 7 & 8 fell to 4, from 15 in 2020Q1. Confidence among Grades 3 & 4 was also lower at 9. In contrast, firms in Grade 5 & 6 registered a 5-index point rise in confidence to 22.

Confidence among CE in Grades 5 & 6 was higher despite persistently poor activity growth. In 2020Q1, a net 78% of respondents reported lower activity growth relative to a year earlier, 79% stated as such in 2020Q2 (Figure 6). The rating of insufficient new demand as a business constraint, while still high, eased somewhat in the quarter. This may have supported the slight rise in confidence.

Activity growth among Grades 3 & 4 and Grades 7 & 8 worsened noticeably. Indeed, all Grade 3 & 4 (100%) respondents reported lower activity growth in 2020Q2 compared to 2019Q2.

Figure 6: Civil construction activity per grade (smoothed)
Provincial comparison

In 2021Q1, CE confidence in KwaZulu-Natal and the Eastern Cape was at zero. In 2020Q2, confidence rose to 8 and 29 index points respectively. While this does mean that more respondents are satisfied with prevailing business conditions than previously, it does not, in this instance, point to a material improvement in underlying conditions in these regions. Indeed, activity growth (on a smoothed basis) was broadly unmoved in 2020Q2 (Figure 7).

CE confidence in Gauteng fell to 9, from 44 in 2020Q1. Meanwhile, all respondents in the Western Cape were dissatisfied with prevailing business conditions. This was underpinned by a significant worsening in activity growth.

Figure 7: Activity by province (smoothed)
In conclusion

Both GB and CE confidence fell to a record low in 2020Q2. Underpinning this was a sharp deterioration in activity, understandably given that business operations were legislatively prohibited for much of the quarter.

For GB, confidence was down across all grades. The sharpest fall was recorded among Grades 7 & 8 with confidence now at zero. They also registered the biggest deterioration in building activity. From a provincial perspective, the Western Cape saw the biggest decline in activity. Looking ahead, building activity growth will remain constrained given the high percentage of firms that indicated new demand is insufficient.

While CE in Grades 3 & 4 and Grades 7 & 8 were more pessimistic in 2020Q2, confidence among Grades 5 & 6 gained 5 points. However, activity was under pressure across the board. Provincially, the Western Cape fared the worst, with confidence at 0 in 2020Q2. In contrast, business sentiment in KwaZulu-Natal and Gauteng improved (from 0 in 2020Q1).
Survey results

General Building: Total

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2 Combined building activity of contractors and sub-contractors.

\( \mu \) – average
\( \sigma \) – standard deviation
\( \Delta \) – change from previous period
\( \sigma_{\Delta} \) – volatility (standard deviation of the changes)
All of the above calculated since 2008Q3
See technical note for further details
General Building: Total

μ – average
σ – standard deviation
Δ – change from previous period
σΔ – volatility (standard deviation of the changes)
All of the above calculated since 2008Q3
See technical note for further details
**General Building: Grade 3 & 4**

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**Confidence**

![Confidence graph](image)

**Activity (smoothed)**

![Activity smoothed graph](image)

**Tendering competition (smoothed)**

![Tendering competition smoothed graph](image)

**Insufficient demand**

![Insufficient demand graph](image)

μ – average  
σ – standard deviation  
Δ – change from previous period  
σ_Δ – volatility (standard deviation of the changes)  
All of the above calculated since 2008Q3  
See technical note for further details
### General Building: Grade 5 & 6

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### Graphs

- **Confidence**: Graph showing trend from 2008 to 2020 with confidence values.
- **Activity (smoothed)**: Graph showing activity trend from 2008 to 2020 with smoothed values.
- **Tendering competition (smoothed)**: Graph showing tendering competition trend from 2008 to 2020 with smoothed values.
- **Insufficient demand**: Graph showing trend from 2008 to 2020.

### Notes

- $\mu$ – average
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- $\sigma_{\Delta}$ – volatility (standard deviation of the changes)
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- See technical note for further details
## General Building: Grade 7 & 8

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### Charts

- **Confidence**
- **Activity (smoothed)**
- **Tendering competition (smoothed)**
- **Insufficient demand**

### Notes

- $\mu$ – average
- $\sigma$ – standard deviation
- $\Delta$ – change from previous period
- $\sigma_\Delta$ – volatility (standard deviation of the changes)

All of the above calculated since 2008Q3

See technical note for further details
General Building: Western Cape

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**Confidence**

- 2008: 58%
- 2010: 72%
- 2012: 65%
- 2014: 71%
- 2016: 75%
- 2018: 80%
- 2020: 83%

**Activity (smoothed)**

- 2008: -30%
- 2010: 15%
- 2012: 30%
- 2014: -10%
- 2016: 0%
- 2018: -20%
- 2020: -40%

**Tendering competition (smoothed)**

- 2008: 75%
- 2010: 70%
- 2012: 65%
- 2014: 70%
- 2016: 75%
- 2018: 80%
- 2020: 85%

**Insufficient demand**

- 2008: 50%
- 2010: 60%
- 2012: 70%
- 2014: 80%
- 2016: 90%
- 2018: 95%
- 2020: 100%

**Notes:**

- μ – average
- σ – standard deviation
- Δ – change from previous period
- σ_Δ – volatility (standard deviation of the changes)
- All of the above calculated since 2008Q3
- See technical note for further details
### General Building: Eastern Cape

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**Confidence**

![Confidence Graph](image)

**Activity (smoothed)**

![Activity Graph](image)

**Tendering competition (smoothed)**

![Tendering Graph](image)

**Insufficient demand**

![Demand Graph](image)

**Notes:**
- **μ** – average
- **σ** – standard deviation
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- **σ_Δ** – volatility (standard deviation of the changes)
- All of the above calculated since 2008Q3
- See technical note for further details
General Building: KwaZulu-Natal

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μ – average
σ – standard deviation
Δ – change from previous period
σΔ – volatility (standard deviation of the changes)
All of the above calculated since 2008Q3
See technical note for further details
General Building: Gauteng

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μ – average  
σ – standard deviation  
Δ – change from previous period  
σΔ – volatility (standard deviation of the changes)  
All of the above calculated since 2008Q3  
See technical note for further details
Civil Engineering: Total

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μ – average
σ – standard deviation
Δ – change from previous period
σΔ – volatility (standard deviation of the changes)
All of the above calculated since 2008Q3
See technical note for further details
Civil Engineering: Grade 3 & 4

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μ – average
σ – standard deviation
Δ – change from previous period
σ_Δ – volatility (standard deviation of the changes)
All of the above calculated since 2008Q3
See technical note for further details
Civil Engineering: Grade 5 & 6

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\[ \mu – \text{average} \]
\[ \sigma – \text{standard deviation} \]
\[ \Delta – \text{change from previous period} \]
\[ \sigma_\Delta – \text{volatility (standard deviation of the changes)} \]

All of the above calculated since 2008Q3

See technical note for further details
Civil Engineering: Grade 7 & 8

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µ – average
σ – standard deviation
Δ – change from previous period
σ_Δ – volatility (standard deviation of the changes)
All of the above calculated since 2008Q3
See technical note for further details

$μ - \text{average}$
$\sigma - \text{standard deviation}$
$Δ - \text{change from previous period}$
$σ_Δ - \text{volatility (standard deviation of the changes)}$
All of the above calculated since 2008Q3
See technical note for further details
Civil Engineering: Western Cape

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![Graphs of Confidence, Activity (smoothed), Tendering competition (smoothed), Insufficient demand](image.png)

\(\mu\) – average  
\(\sigma\) – standard deviation  
\(\Delta\) – change from previous period  
\(\sigma\Delta\) – volatility (standard deviation of the changes)  
All of the above calculated since 2008Q3  
See technical note for further details
### Civil Engineering: Eastern Cape

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### Graphs

- **Confidence**
- **Activity (smoothed)**
- **Tendering competition (smoothed)**
- **Insufficient demand**

**Annotations:**
- μ – average
- σ – standard deviation
- Δ – change from previous period
- σ_{Δ} – volatility (standard deviation of the changes)

*All of the above calculated since 2008Q3*

*See technical note for further details*
Civil Engineering: KwaZulu-Natal

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\[ \mu \] – average  
\[ \sigma \] – standard deviation  
\[ \Delta \] – change from previous period  
\[ \sigma_{\Delta} \] – volatility (standard deviation of the changes)  
All of the above calculated since 2008Q3  
See technical note for further details
Civil Engineering: Gauteng

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μ – average
σ – standard deviation
Δ – change from previous period
σΔ – volatility (standard deviation of the changes)
All of the above calculated since 2008Q3
See technical note for further details
Summary

Confidence: building & civil construction

Activity (smoothed): building & civil construction

BER & cidb building activity

BER & cidb civil activity

Building activity per grade (smoothed)

Civil activity per grade (smoothed)

Building activity per province (smoothed)

Civil activity per province (smoothed)
Technical note

The cidb has contracted the Bureau for Economic Research (BER) at Stellenbosch University to conduct a business tendency survey (BTS) among registered cidb contractors (Grades 3 - 8) operating in the building and civil engineering industries since the third quarter of 2008. Business tendency survey results reveal information on 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. 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 building and civil construction 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 BER’s manufacturing and trade surveys is allocated a weight based on its turnover. Firms in the BER’s building and the cidb survey 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. Firms that are registered for both general building and civil construction at the cidb, have to indicate which one generated the bulk of their turnover during the previous year.

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. The cidb survey is conducted since 2008.

The survey that the BER conducts on behalf of the cidb covers the same sectors than the BER’s own surveys. To prevent confusing participants and duplication, a firm is allowed to participate in only one of the surveys. The cidb survey includes only firms with active grades 3 to 8 cidb registrations. The BER’s surveys also include firms that are not registered at the cidb (this is more so in the case of the building than the civil construction sector) and firms with grade 9 registrations (this is more the case in the civil construction than building sector). The results per grade uniquely distinguish the cidb survey from the BER’s own survey.

Consult the BER web page (www.ber.ac.za) for more information about the business tendency.
First quarter of 2019 changes in the “cidb Building & Construction” report

The original individual responses (the so-called micro data) were used to recalculate historical time series for all the sectors, grades and the four main provinces (Western Cape, Eastern Cape, KwaZulu-Natal and Gauteng) going back to 1992.

The selection of time series covered in the tables

From the first quarter of 2019 onwards the BER includes only a selection of variables (time series) and added descriptive statistics in the tables of survey results to assist users with the interpretation.

A factor analysis has confirmed our experience that most of the time series move closely together over time. For instance, business confidence, activity, employment, profitability and constraints exhibit a high positive correlation (co-movement) with one another. There is also a negative correlation with some other variables, such as tendering competition and certain constraints. We have, therefore, limited the number of series covered in the report to those that have historically and according to the functional analysis proved to provide the most unique information and are necessary to obtain a full, balanced view of developments. All the variables are still covered as in the past and the information is available on request, but from the first quarter of 2019 onwards we only focus on the core findings.

This may prevent one from getting side-tracked by too much information and trying to explain results that are not statistically meaningful, such as rationalising differences between two series/variables or only focussing on the last two quarters.

Descriptive statistics provided in the tables

Some of the survey results are quite volatile. This volatility results in a situation where the user does not know how much value to attach to a specific result (i.e. the signalling impact of the results are hampered) because -10, for instance, is a significant result in one case and merely an average in another.

The volatility could be attributed to many factors, such as sector disaggregation, sector heterogeneity, respondent behaviour, survey design or it could merely correctly reflect actual developments or uncertainty. Generally the results at the aggregate (total) level are less volatile than at the disaggregated level (i.e. total building compared to residential sector). The results of heterogeneous sectors, such as those in which only a few firms operate, a few large firms dominate many small firms or widely divergent kinds of activity are covered, tend to be more volatile than homogeneous sectors. Survey design, such as the representativeness of the sample, the number of completed questionnaires (usually below 30) and weighting, could also play a role.

Thanks to many years of experience the BER knows when a particular result is noteworthy. However, to formalise this and correctly identify signals, we have added some descriptive statistics to the tables. The purpose of these statistics is to indicate the significance of the level or change in each indicator, relative to its own historical pattern.

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: σΔ)**

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.
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