



Bi-Annual Economic and Capacity Survey

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1. Economic overview

1.1 International Developments

According to the IMF's latest world economic outlook report for July 2019, the global expansion has continued to weaken, with economic activity slightly more sluggish than expected. The global GDP growth forecast was decreased by 0.1 percentage point again to 3.2 percent in 2019, and also down 0.1 percent to 3.5 percent for 2020 as the risks continue to mount, and weigh on the downside. This is compared to projections made in April this year. Global growth remains subdued. Some of the key risks include the trade war between the US and China, which are the world's two biggest economies, as well as uncertainty around a prolonged Brexit in the UK. The IMF reported softer global trade, notably in emerging Asia, as well as muted inflation across advanced economies, which highlights weak levels of demand. At the time of writing, there is worry that the US and the global economy could enter recession in the next 12-24 months. These fears are largely unfounded, but remains a risk as well as somewhat of a self-fulfilling prophecy. The fears come amidst the trade war, that has now evidently put both the US and China's economy under pressure. This has driven short term bond yields to be higher than longer term yields (2year bond, compared to 20year bond, called the bond inversion), which has been an anecdotal precursor to the last 2 recessions.

According the IMF's forecasts, growth in advanced economies is expected to slow in 2020 to 1.7 percent, down from an expected 1.9 percent this year. This comes as the US economy is expected to slow from 2.6 percent this year to just 1.9 percent in 2020 as the fiscal stimulus provided unwinds. The Euro Area is expected to recover somewhat in 2020, while the UK's economy has been plagued with uncertainty around a prolonged Brexit process.

The forecast is better for emerging markets, with the IMF expected combined GDP to pick up to 4.7 percent next year in 2020, from an expectation of 4.1 percent this year. This is slightly lower than in their previous report (by 0.1 percent), and is largely due to the effect of the tariffs on the Chinese economy. India's economy remains robust, with growth expected to pick up to 7.2 percent next year, from an estimated 7.0 percent this year. In sub-Saharan Africa, growth is expected at 3.4 percent in 2019 and 3.6 percent in 2020, 0.1 percentage point lower for both years than in the April World Economic Outlook report. This is driven by stronger growth in countries that do not rely mostly on resource intensive sectors. The IMF note that growth in South Africa is expected to be weaker than initially anticipated, because of a much poorer than expected first quarter. They also cite strike action, as well as electricity supply issues as some of the main culprits for the poor performance.

Table 1: Global economic outlook

	2015	2016	2017	2018	2019	2020
World	3.2%	3.1%	3.8%	3.7%	3.2%	3.5%
Advanced Economies	2.1%	1.7%	2.4%	2.3%	1.9%	1.7%
US	2.6%	1.6%	2.2%	2.9%	2.6%	1.9%
Eurozone	2.0%	1.7%	2.4%	1.8%	1.3%	1.6%
UK	2.2%	1.8%	1.8%	1.4%	1.3%	1.4%
Emerging markets	4.1%	4.1%	4.7%	4.6%	4.1%	4.7%
Brazil	-3.8%	-3.6%	1.1%	1.3%	0.8%	2.4%
Russia	-3.7%	-0.2%	1.8%	1.5%	1.2%	1.9%
India	7.6%	6.8%	6.7%	7.3%	7.0%	7.2%
China	6.9%	6.7%	6.8%	6.6%	6.2%	6.0%
Sub-Saharan Africa	3.4%	1.4%	2.7%	2.9%	3.4%	3.6%
SA	2.0%	0.6%	1.3%	0.8%	0.7%	1.1%

Source: IMF World Economic Outlook July 2019

1.2 Domestic Economy

The South African economy contracted by 3.2 percent in the first quarter of the year (quarter on quarter, seasonally adjusted and annualised figures), which came as a shock to majority of economists who expected a marginally negative figure at worst. This marks the worst quarterly performance by the economy since the financial crisis, which sent shock waves through markets, and highlighted some of the deep structural issues that the South African economy faces. On a y-y basis, the economy narrowly avoided a recession, with a figure of 0.0 percent reported. Looking at the figures from the production side (where the figures are broken down by sector), the contraction was broad based, the biggest decline being in agriculture (down 13.2 percent), mining (down 10.8 percent) and manufacturing (down 8.8 percent). It was no surprise that the **construction industry** reported a decline, with the sector contracting by 2.2 percent in the quarter, with declines across all segments, with less residential, non-residential and civil building activity. The tertiary sector performed slightly better, with only a 0.7 percent decline on average. Growth came from the finance, real estate and business services sector, which saw growth of 1.1 percent. There were however sharp contractions in wholesale and retail trade (down 3.6 percent), with South African consumers under massive pressure.

Then looking at the figures from the expenditure/demand side, it is evident that consumers in South Africa are under pressure, with overall household expenditure down by 0.8 percent on a quarter on quarter basis. What really was staggering, and was one of the biggest contributors to the poor first quarter figures was a big contraction in exports, down a whopping 26.4 percent. What is also a worrying indicator for the more medium to longer run is that there was again a decline in investment in the economy, with a decrease of 4.5 percent reported.

The very pertinent effect of the poor GDP figure for the 1st quarter (and not much better is expected for the 2nd quarter), is that it supports the narrative that South Africa's sovereign credit rating will be downgraded to sub-investment grade or 'junk' status. The perceived slow progress in reforming Eskom is also a major worry, with almost unmanageable debt of over R400bn, there seems to be a lack of a plan, as well as many hurdles to reform. This includes disproportionately strong unions contributing to a highly inflexible labour market in South Africa, as well as infighting within the ruling party. The effect on the construction sector will mean more cuts to infrastructure spending.

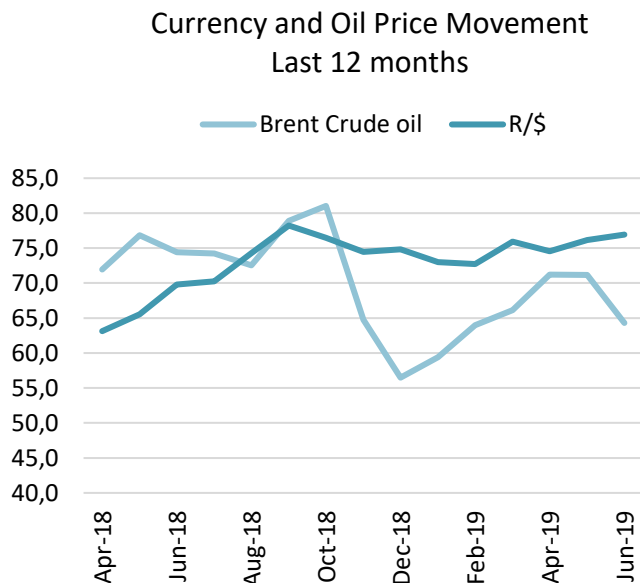


Figure 2: Currency movements versus oil price

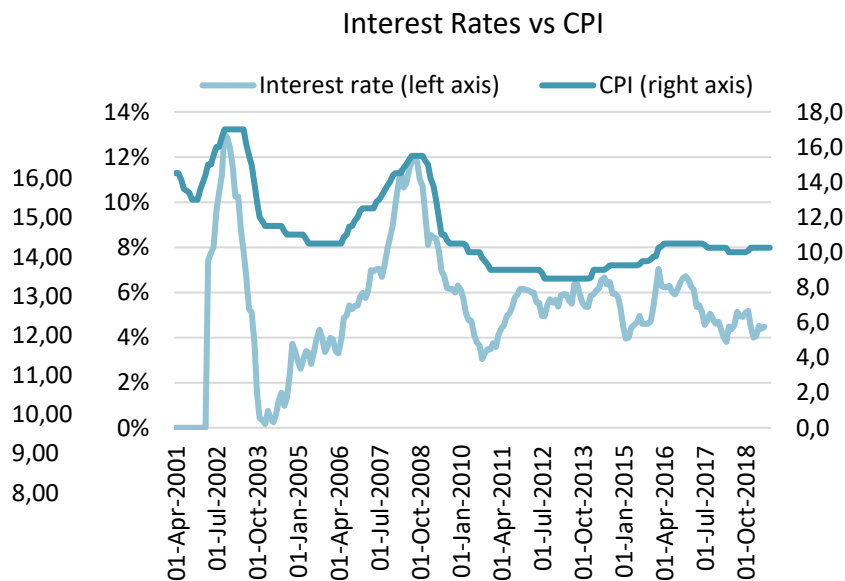
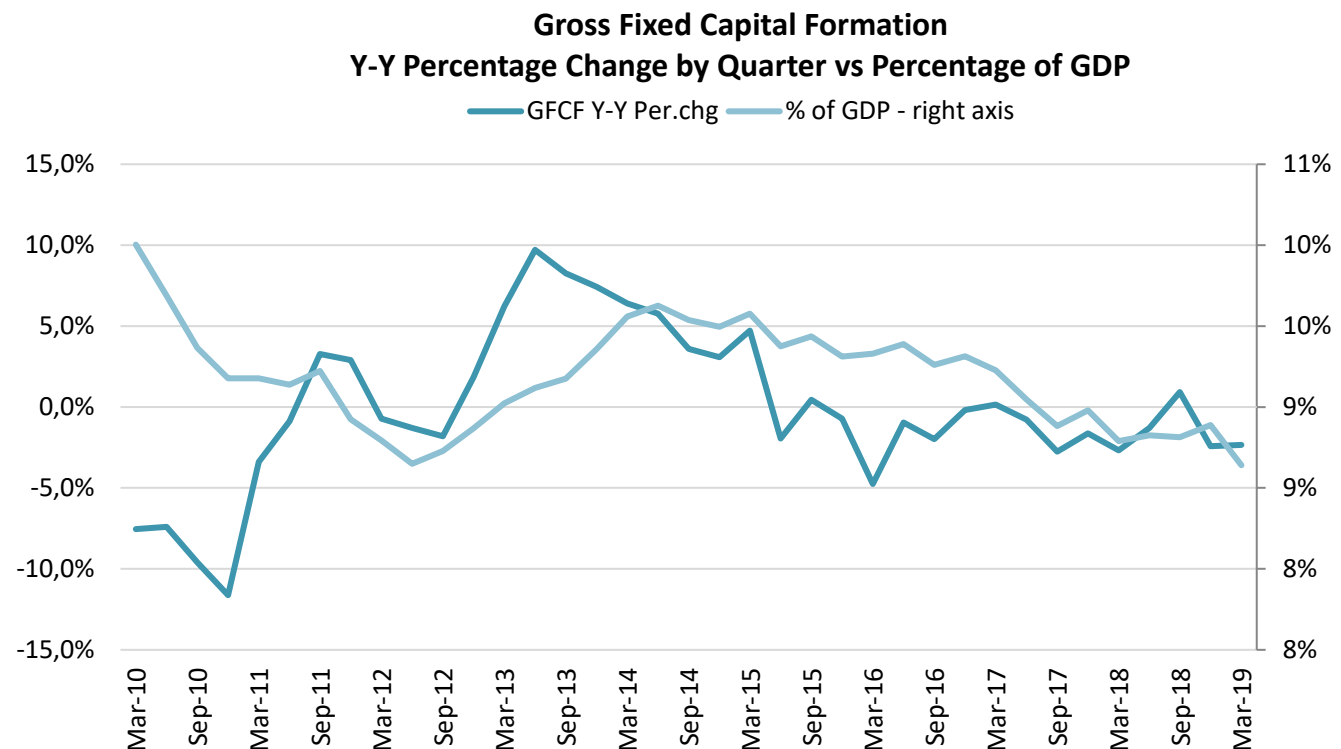


Figure 1: Interest rates versus CPI history

Table 2: Macro economic growth projections (Industry Insight Forecast Report 2019Q2)

Macro-Economic Forecasts	2017	2018	2019	2020	2020
GDP	1.3%	0.8%	0.5%	1.1%	1.6%
Household consumption	2.2%	0.9%	1.2%	1.6%	1.8%
Government consumption	0.6%	1.9%	1.0%	0.8%	1.8%
Gross Fixed capital formation	0.4%	0.1%	-1.4%	2.6%	1.1%
Imports	2.1%	4.3%	3.2%	4.9%	4.4%
Exports	1.4%	5.0%	209%	3.4%	4.4%
Prime Lending rate	10.25%	10.25%	10.00%	9.75%	9.5%
ZAR/US\$	12.50	13.55	16.10	15.80	15.20
CPI Inflation	5.3%	5.2%	5.8%	5.3%	4.8%

1.3 Gross fixed capital formation

**Figure 3: GFCF (Y-Y percentage changes vs Percentage of GDP) Source SARB Quarterly Bulletin**

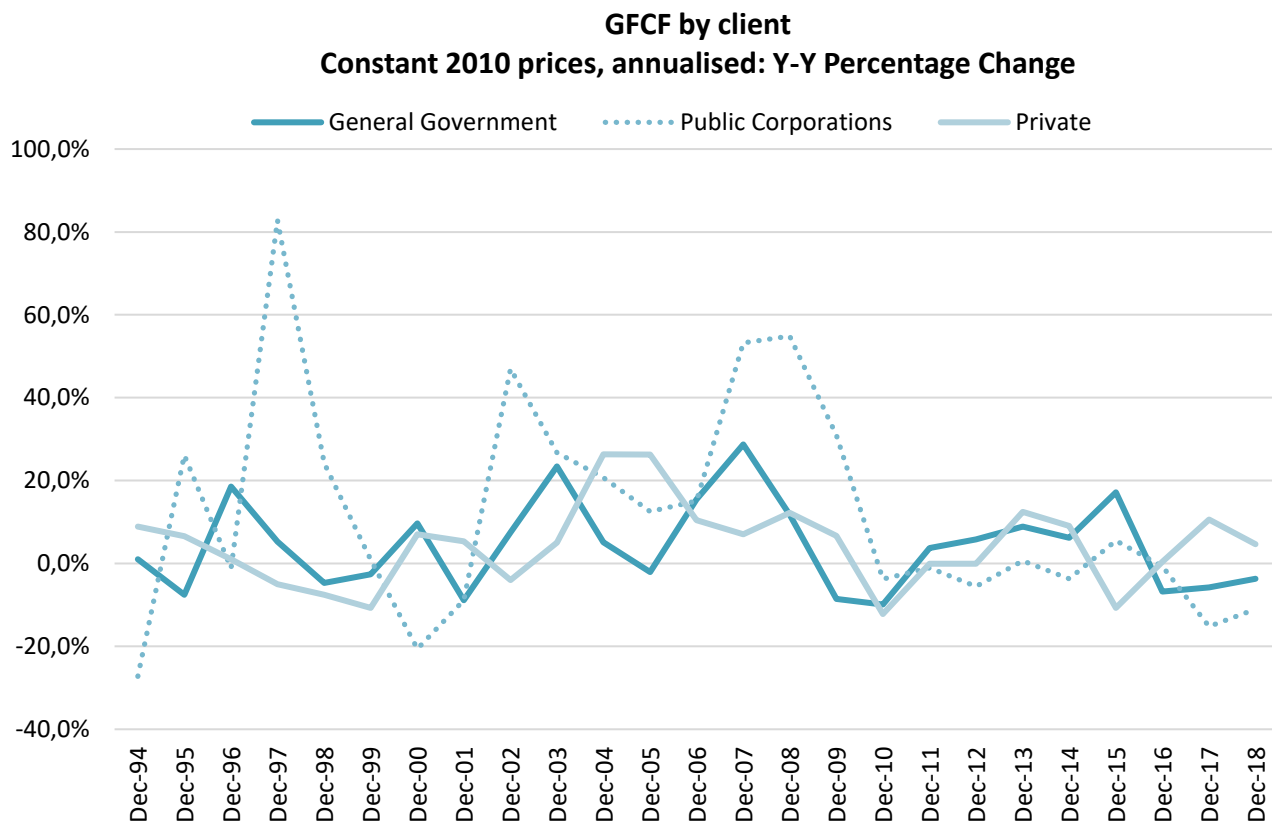
Gross fixed capital formation (GFCF) decreased by 2.3 percent in the 1st quarter of 2019, off the back of a similar 2.4 percent decline in the 4th quarter of last year. Investment continues to decline in construction. The last time there was a more than 1 percent increase was in the 1st quarter of 2015, which coincided with the start of the downturn. If we look at the contribution of the decline from the different segments, interestingly the civil (construction works) component was the best performer with an expansion of just 0.2 percent in the 1st quarter. The residential and non-residential investment recorded declines of 6.0 percent and 6.3 percent respectively.

GFCF as a percentage of GDP averaged at 8.9 percent in 2018 overall, and has not even been above 10 percent since the first quarter of 2015, suggesting the government's target of 30 percent in the National Development Plan has become rather optimistic.

Table 3: GFCF Residential, Non-Residential and Construction works, by client 2018, Constant prices

2018	Government	SOE's	Private	Total
Residential	1.157	42	54.671	55.870
Non-residential	20.452	2.082	31.377	53.912
Civil works	50.992	59.614	60.630	171.236
Total	72.601	61.738	146.678	281.018

Source: South African Reserve Bank Quarterly Bulletin



Gross Fixed Capital Formation Construction

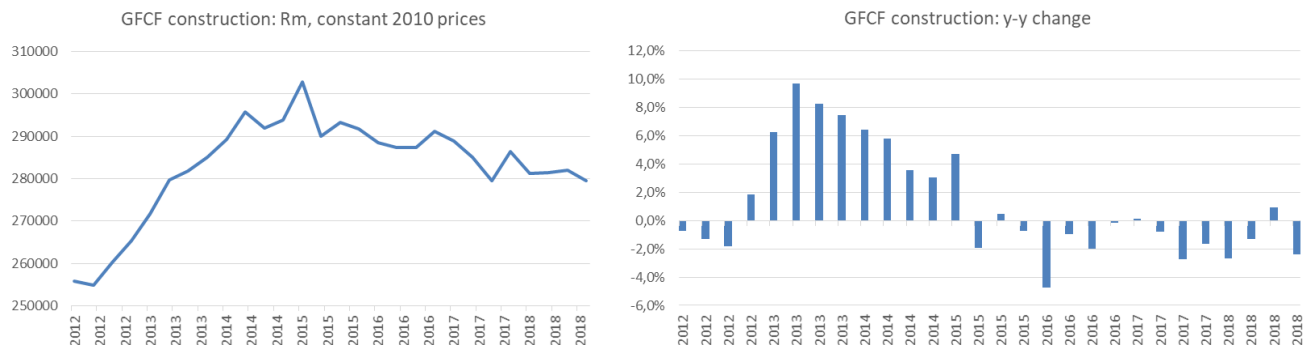


Figure 4: Gross fixed capital formation, level and year on year percentage change

According to SARB, a total of R281bn was spent on construction infrastructure over the last year (in constant prices), including investment in residential and non-residential buildings and construction works. This would also include purchases of machinery and equipment, often imported, used in the construction process such as the installation of turbines. The most interesting thing from table 3 above, is that the private sector has now become the biggest investor in the civil construction industry, with just over R54 billion invested, surpassing general government and SOE's (respectively) for the first time ever. This clearly shows that renewable energy is a sub-sector of the civil industry that is something to be excited about going forward.

2. CESA Survey: Background

A total of 65 questionnaires were returned via both an on-line and hard copy system. The sample represents a fee income of R3.52bn, and 5822 employees for the period January – June 2019.

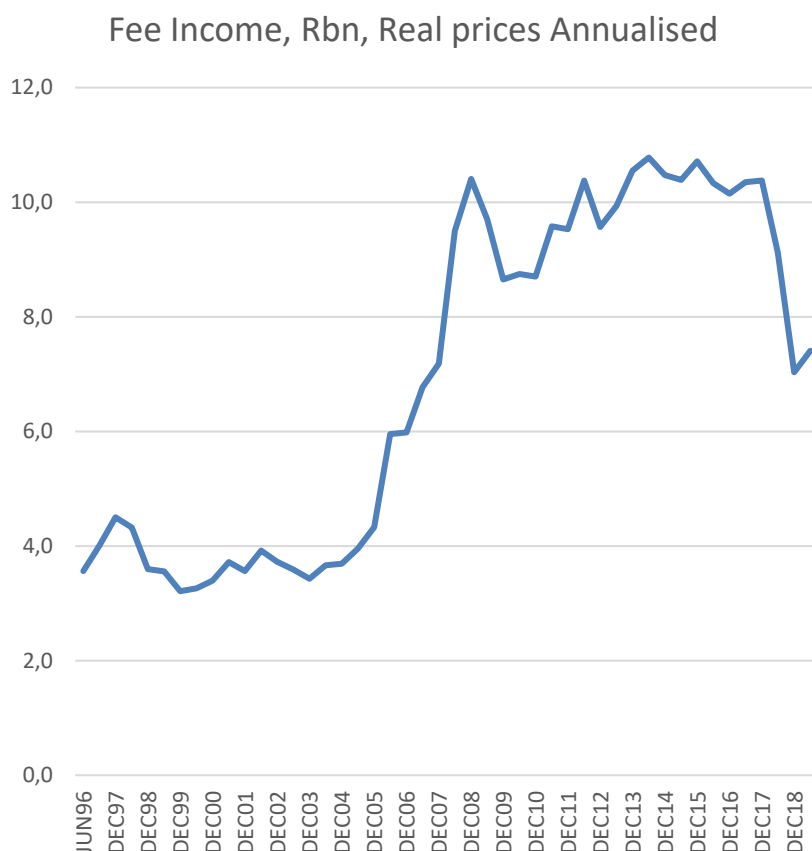
The analysis of the questionnaires completed by active firms in the consulting engineering profession provides a proxy for current and expected working conditions for the profession, which can be measured on a regular basis.

CESA welcomes commentary received from firms and invites all members to actively participate in sending commentary on either the survey or conditions in the work place thereby increasing the relevance of these reports.

The survey is re-evaluated on a continuous basis to ensure that the questions asked are pertinent to current conditions in the industry. Several new questions were included in the current survey to improve the compilation of benchmark indicators.

3. Prevailing conditions in the Consulting Engineering Industry

3.1 Financial Indicators



Fee earnings for the first six months of 2019 increased by 7.3 percent (in current prices) compared to the last six months of 2018, which comes as some reprieve following the 21.0 percent and 10 percent drop reported in the first and last six months of 2018, which proved to be a rather trying year for the consulting engineering industry.

Larger firms reported an increase of 6.8 percent, while earnings for medium size firms was 25.0 percent lower. Medium sized firms were however the only ones to report a decline, with a good 28.0 percent and 36.2 percent increase reported for small and micro firms respectively.

Earnings are however expected to come under pressure in the latter stages of 2019, with the average expectation of an 8.0 percent decrease in earnings across all firms. Interestingly, all firms expect a decrease in earnings in the next 6 months period, except for medium sized firms who are a lot more positive after their poor first six months to the year.

A summary of fee earnings by firm size, as well as projected earnings for the first six months of 2019 is provided in the table below.

Table 4: Fee earnings, actual vs projected by firm size

Firm size category	Actual (June 2019 vs Dec 2018)	Projected for Dec 2019
Large	6.8%	-8.2%
Medium	-25.0%	22.5%
Small / Micro	29.1%	-13.2%
Total	7.3%	-8.0%

3.1.2 Outsourcing

On average firms **outsourced** a lower percentage of turnover to external enterprises, compared to transformation purposes or for procurement reasons as laid down by public sector clients. Outsourcing to black owned entities decreased, and was 16.6 percent of turnover in this survey, compared to 18.4 percent in the December 2018 survey.

Larger firms outsourced 19.7 percent to external enterprises, and outsourcing to black owned enterprises remained at a lower level. Overall, there haven't been big changes in how much firms outsource, if we compare the previous few surveys.

Figure 6: Matrix distribution of average percentage outsourced by firms, according to main purpose

Table 5: Average percentage of turnover outsourced, for consulting services only, by firm, size and purpose

	<i>External enterprises or individuals including sub-consultants, joint ventures and contract workers</i>	<i>Black owned enterprises</i>
A	19.7	10.7
B	18.7	21.1
C	13.6	10.3
D	14.4	15.8
Average % of industry turnover	16.6	15.8
Average % of industry turnover Dec 2018 Survey	17.1	18.4

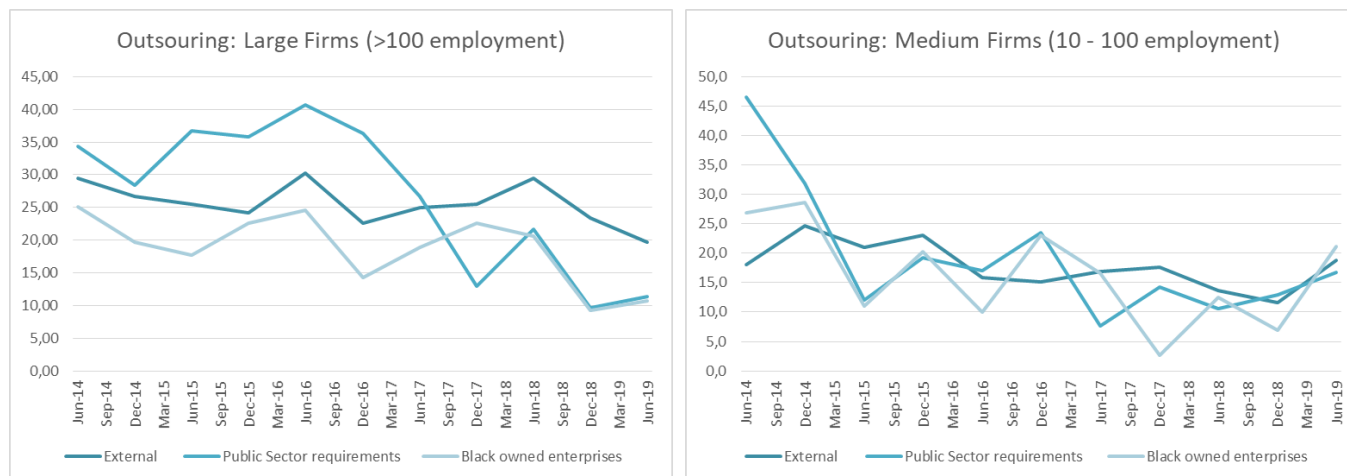


Figure 8: Outsourcing trend, large versus medium sized firms

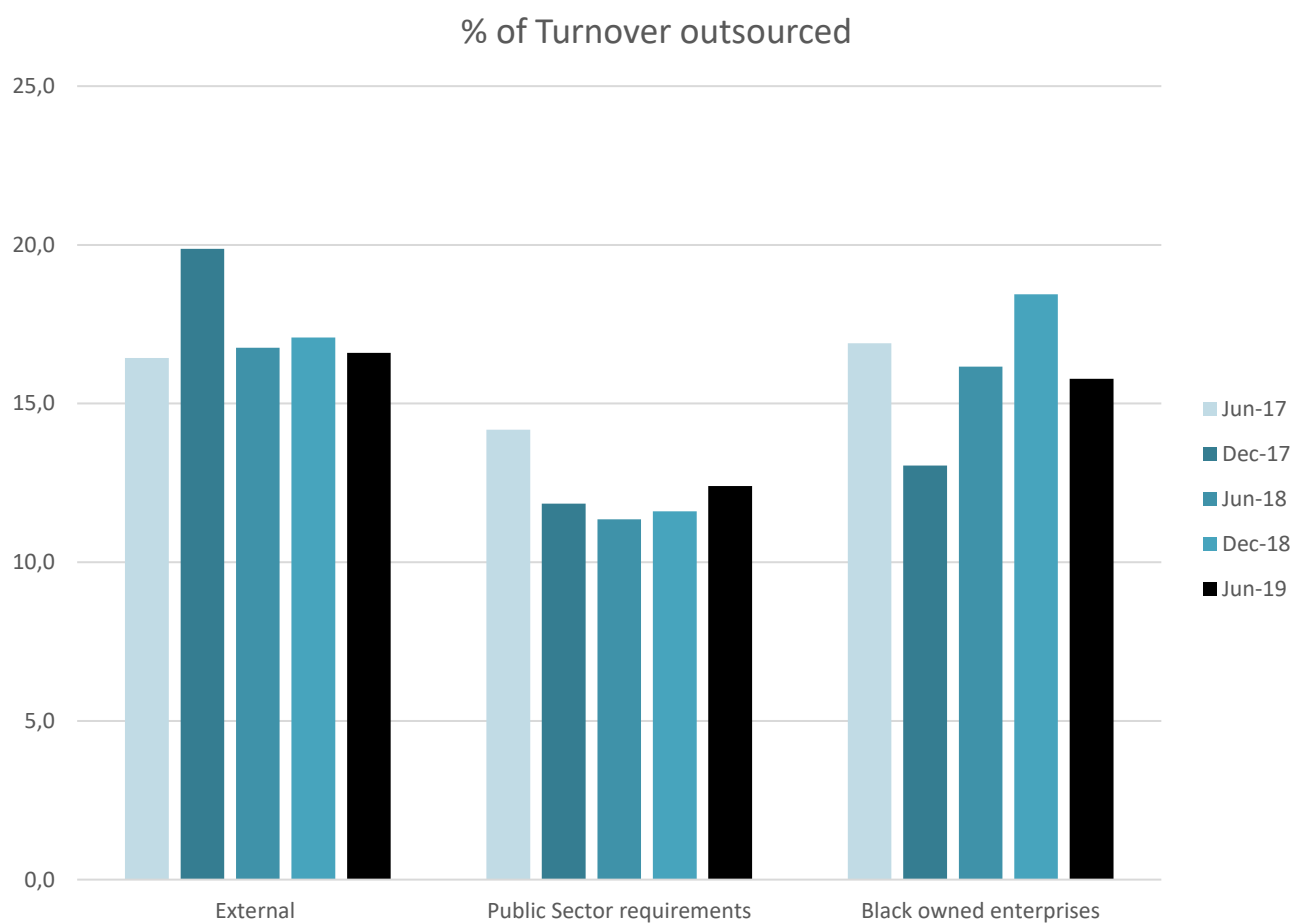


Figure 7: Percentage of turnover outsourced (average)

3.1.3 Return on Working Capital

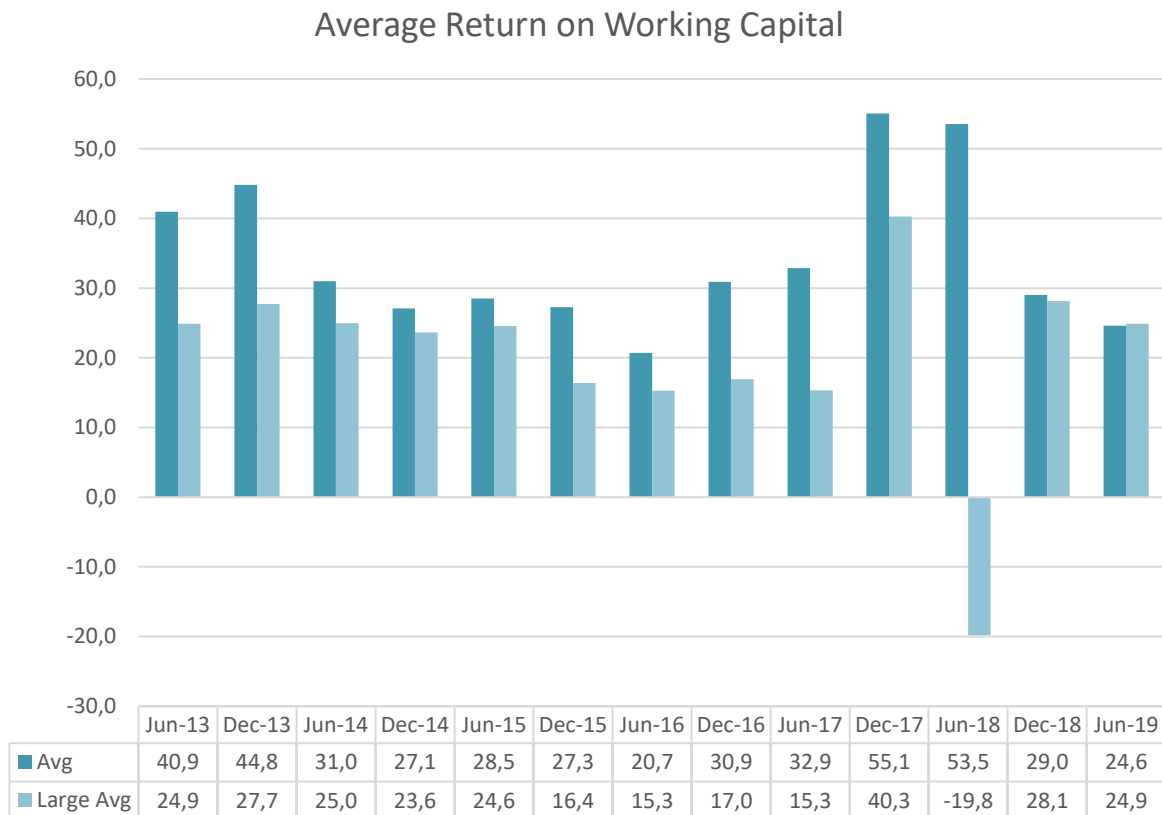


Figure 9: Average Return on Working Capital – Trend since December 2012

- The industry's **return on working capital**¹ (un-weighted average) moderated further to 24.6 percent in the June 2019 survey after having slowed dramatically to 29.0 percent the previous survey, and is now below the average of between 30 and 40 percent in 2012 and 2013. Majority of firms reported a ROI of between 20% and 30%, with large firms return on working capital also falling slightly to 24.9, very much in line with the average.
- Medium sized firms have consistently reported a good return on working capital, but this has come to a halt in the last 2 surveys, with medium sized firms reporting only 13.4 percent in the current survey.

Table 6: Return on Working Capital by firm size

Group	Jun-16	Dec-16	Jun-17	Dec-17	Jun-18	Dec-18	Jun-19
A	15.3	17.0	15.3	40.3	-19.8	28.1	24.9
B	18.9	48.2	53.5	127.3	114.2	25.1	13.4
C	28.1	33.4	41.8	26.1	61.2	34.4	30.5
D	19.9	10.0	22.8	5.2	20.3	20.6	36.3
Grand Total	20.7	30.9	32.9	55.07	53.53	28.99	24.61

3.1.4 Value of outstanding payments

¹ Return on investment is defined as the company's annual profit after interest and tax, as a percentage of Net Working Capital (current assets – current liabilities) during the last completed financial year. Working capital is considered part of operating capital as it affects the day to day operating liquidity. An increase in working capital indicates the business has either increased current assets (i.e. accounts receivable or inventory), or has decreased its current liabilities (accounts payable).

Fees not yet invoiced for confirmed appointments as % of revenue

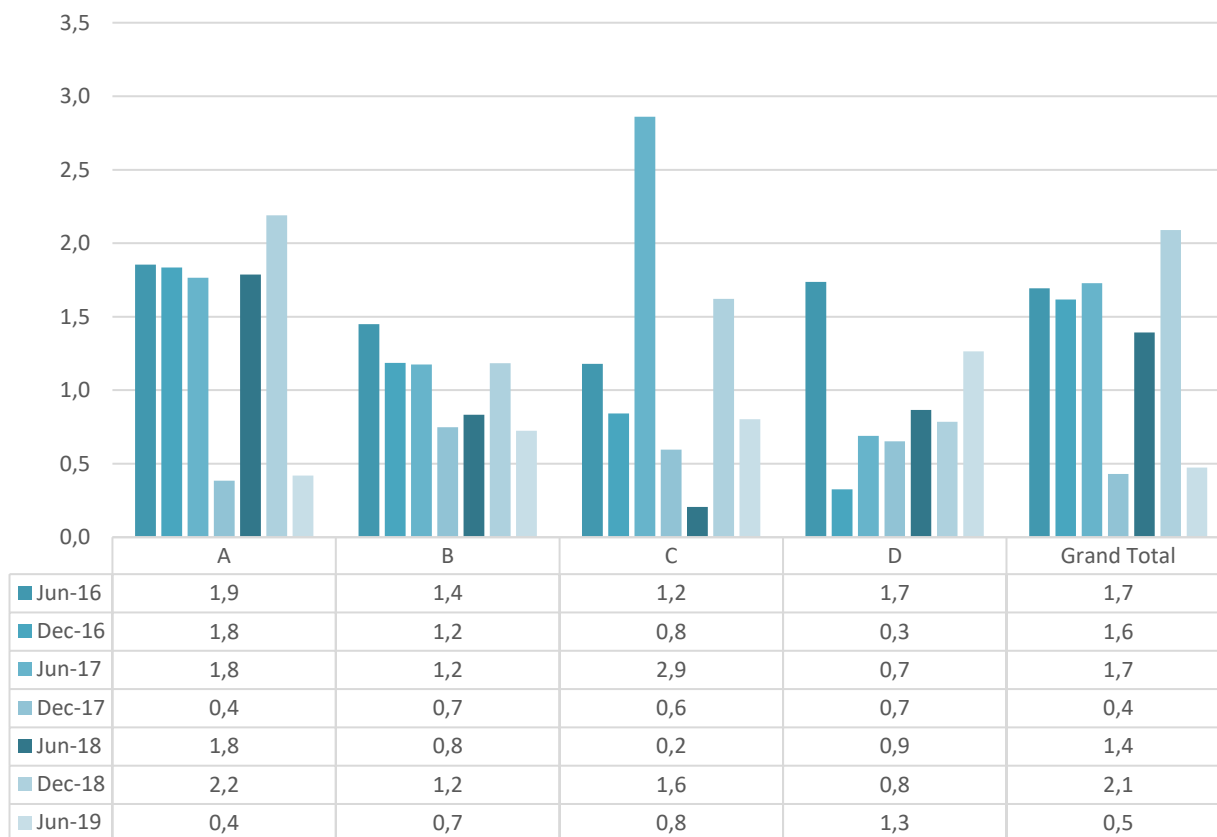


Figure 10: Order book: Income ratio

In terms of the ratio of fees not yet invoiced for confirmed appointments in order books in relation to current earnings, there was a deterioration to 0.5 in this survey, from 2.1 percent the previous survey. Large firms reports the lowest percentage of 0.4 percent, while micro firms reported the highest ratio of 1.3 percent. A decrease in the order book to income ratio suggest a slowdown in pipeline earnings, suggesting weaker conditions in the next 6 to 12 months. This is in line with the expected decline in earnings in the last six months of 2019 as reported by respondents.

3.1.5 Profitability and late payments

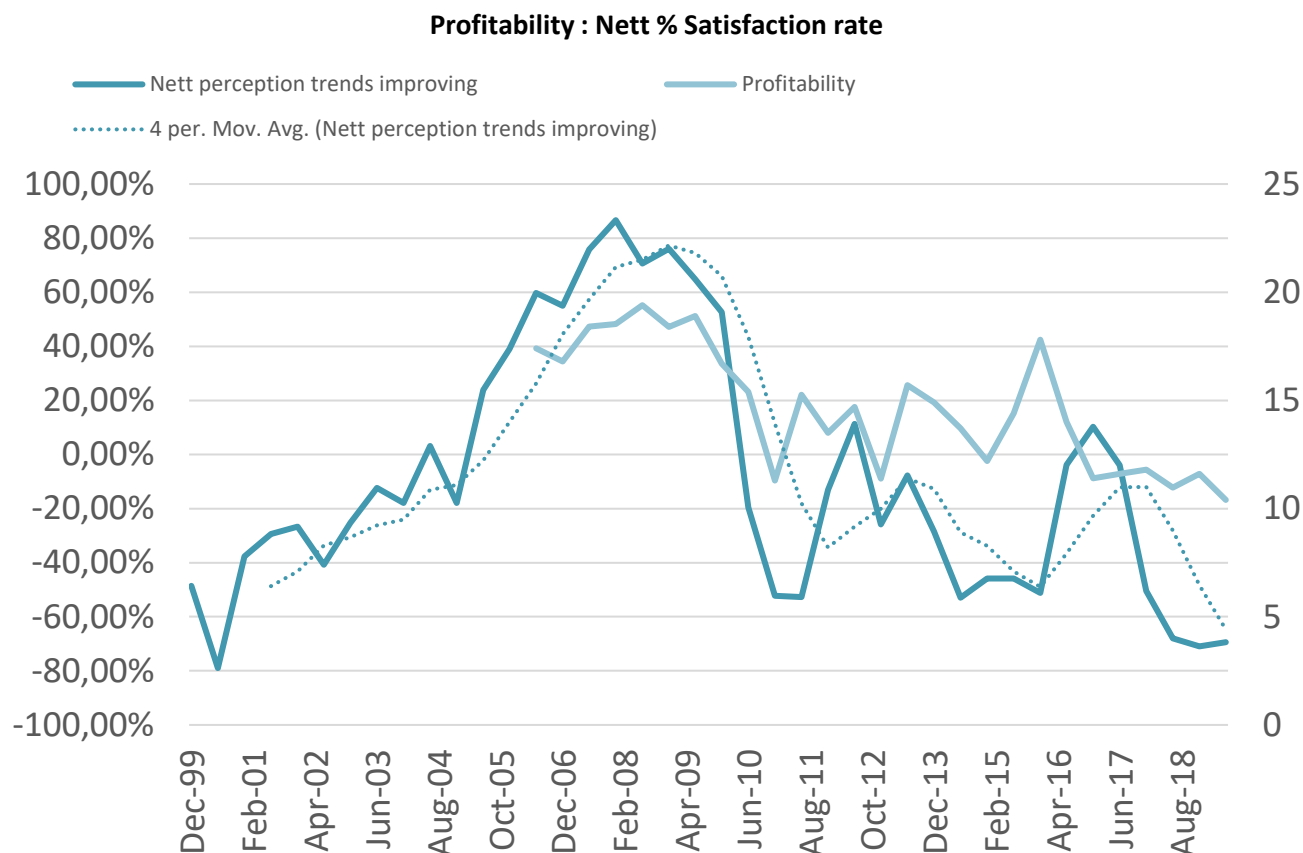


Figure 11: Profitability: Net % Satisfaction rate vs Average Profitability

Nett profitability deteriorated to an average of 10.4 percent in the first six months of 2019 (the lowest level since 2005), from an average of 11.6 percent in the previous survey, and is well below the average of 12.7 percent in 2016. Allowing for fluctuations on a survey to survey basis, the trend has been more and more negative since 2015, when the downturn within the broader construction industry began, from a 'peak' nett profitability of 17.8 percent in the last six months of 2015.

It seems that the consulting engineers have become more and more realistic about the lacklustre overall environment. This is because they have been increasingly negative regarding their expectations around future profitability, with only 1.9 percent of respondents expecting the trend in profitability to improve. This is down from 3.6 percent in the previous survey. Over the last four surveys, the percentage of respondents that expect an improvement has fallen significantly to low single digits. The majority of firms expect a receding trend (62.3 percent), while 35.8 percent of firms expect conditions to remain static (more or less the same), which is a slight improvement compared to the previous survey, with a few more firms expecting some stabilisation within the market.

Very similar to the previous three surveys, a majority of firms (74.2 percent) continue to be unsatisfied with profit margins, compared to 73.7 percent in the previous survey, but also compared to just 14.0 percent in the Dec 2017 survey, just two years ago. Only 4.8 percent of firms reported their margins as good, which is also a record low, while 21.0 percent are satisfied with their margins. No firms reported their margins as being exceptional.

Table 7: Outstanding fees payable for work already completed and invoiced: January – June 2019

Firm size category	Total gross income	Outstanding fee income	Proportion of overall income
Large	2977126963	1342078726	31.1%
Medium	380911686	155726061	29.0%
Small	124489996	34926059	21.9%
Micro	34084785	7976532	19.0%
Total	3516613431	1540707380	30.5%

Overall, the large firms again have the highest proportion of their income that is still outstanding, at 31.1 percent, much improved from the 42.1 percent reported in the previous survey, but still quite high. Late payment has become a serious constraint as the overall industry is in such a dire state, with many stakeholders struggling to meet their financial obligations. Medium sized firms reported that 29.0 percent of their overall income was still outstanding, in line with the average of 30.5 percent for all firms. Small firms had a small proportion at just 21.9 percent, with micro firms reporting the lowest ratio of just 19.0 percent.

3.2 Human Resources

3.2.1 Employment

- Employment decreased by an average of 2.5 percent in the first half of 2019 to an estimated 21 002, compared to the last six months of 2018, following the 10 percent decrease reported in the previous survey. This is a continuation of the decrease reported in the last survey. Small firms reported the biggest decrease in employment, down 5.0 percent in the first half of 2019. Large firms also reported a decrease, of just 2.6 percent, while medium sized and micro firms both reported increases of 8.2 percent and 9.1 percent respectively. Increases in medium and micro employment was not however enough to life the overall reemployment into positive territory.
- Interestingly, the number of firms looking for engineers increased substantially to 48.5 percent from 4.4 percent in the previous survey. There was also a notable uptick in the demand for technicians, up to 10.4 percent from just 1.6 percent.

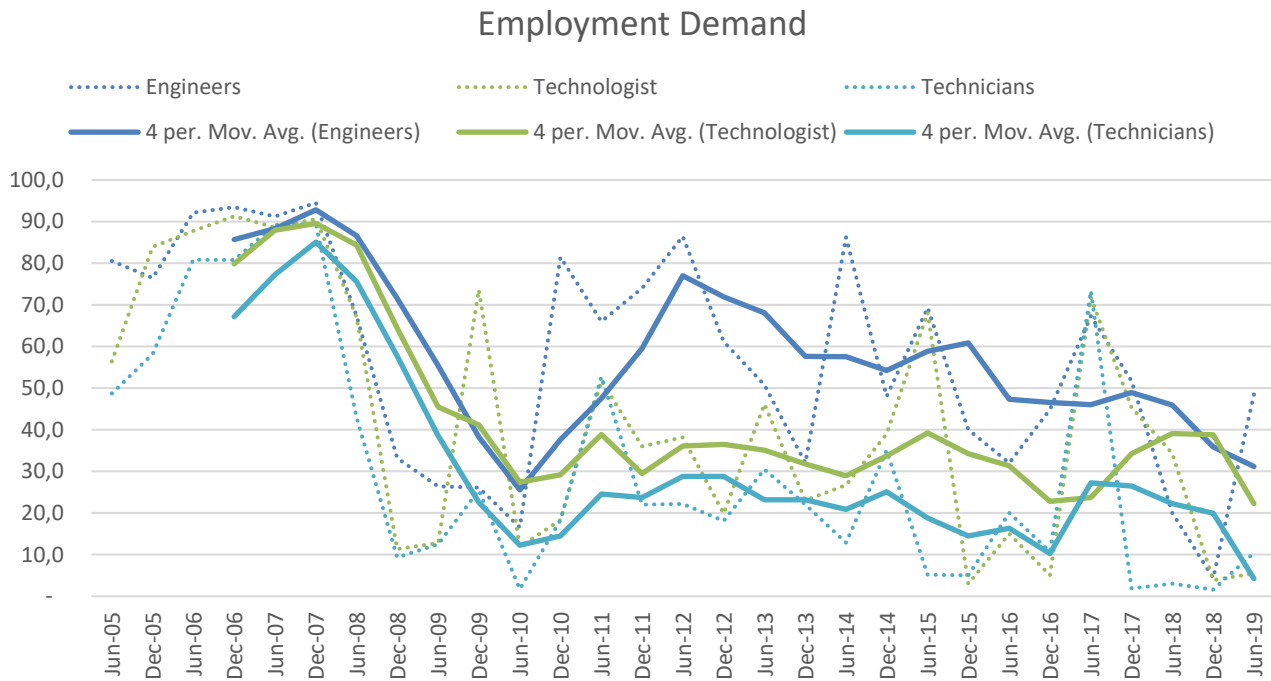


Figure 12: Employment Demand

Table 8: % of firms wanting to increase staff, by type of personnel

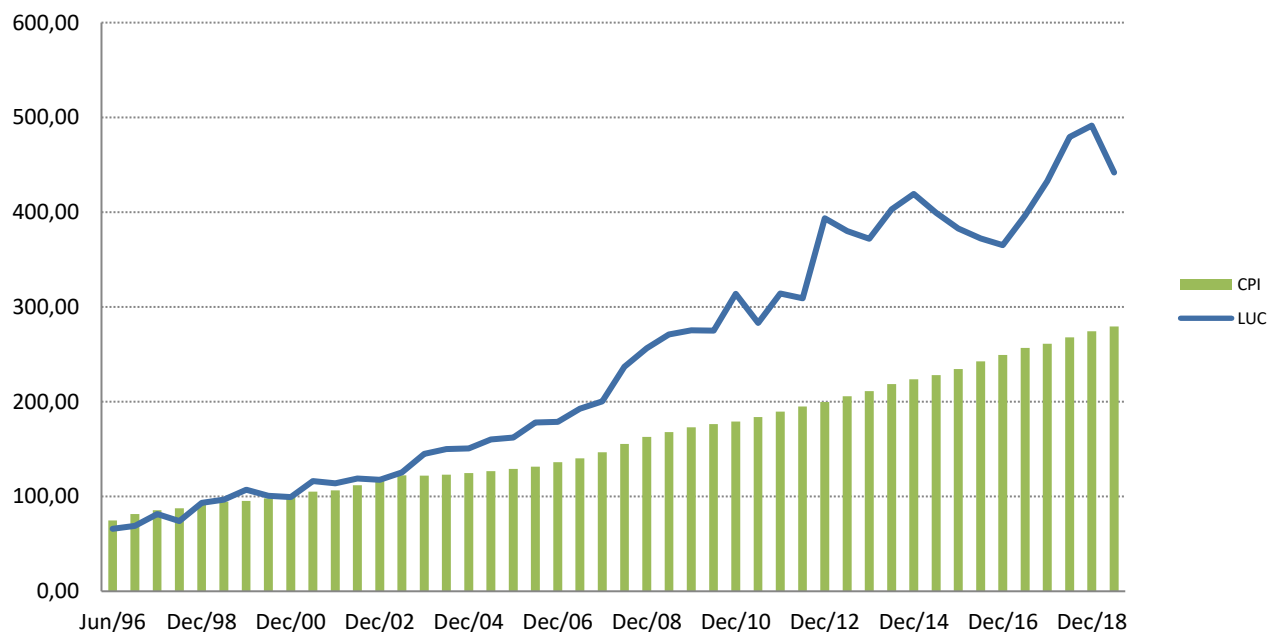
Type of personnel	% of firms wanting to increase staff June 2016	% of firms wanting to increase staff December 2016	% of firms wanting to increase staff June 2017	% of firms wanting to increase staff December 2017	% of firms wanting to increase staff June 2018	% of firms wanting to increase staff December 2018	% of firms wanting to increase staff June 2019
Engineers	32.0	44.9	67.3	51.7	20.0	4.4	48.5
Technologists	15.0	5.0	71.8	3.7	18.0	3.9	5.5
Technicians	20.0	10.7	73.4	45.3	34.3	1.6	10.4
Other technical staff	38.0	72.0	75.2	1.9	3.0	2.3	1.5
Support staff	18.0	0.0	35.3	2.3	0.0	7.5	2.4

3.2.2 Salary and Wage bill

The salary and wage bill represents a significant contributor to the average cost of production in the consulting engineering profession.

- The contribution of the salary and wage bill to fee earnings generally averages between 63 percent and 66 percent but much lower at just 45 percent in the current survey, which does come as a surprise. This could be as a result of retrenchments, and in line with the drop in employment that we have seen over the last 4-5 surveys.
- The contribution of the salary and wage bill was highest amongst micro firms, and averaged 50 percent, while large size firms reported an average salary bill of 44 percent. Medium sized firms reported the lowest at 40 percent of their total income.
- Average labour cost per unit (measured by the average salary and wage bill divided by number of full and part time employees and hours worked), slowed in the June 2019 survey, representing a decrease of 7.9 percent compared to the same period in 2018. Inflation averaged 4.3 percent in the first six months of 2019 (from an average of 5.0 percent in the last six months), and is expected to remain under 6 percent for 2019 and 2020, according to the Reserve Bank.

Change in CESA Labour costs vs CPI
Index 2000 = 100



3.3 Capacity Utilisation

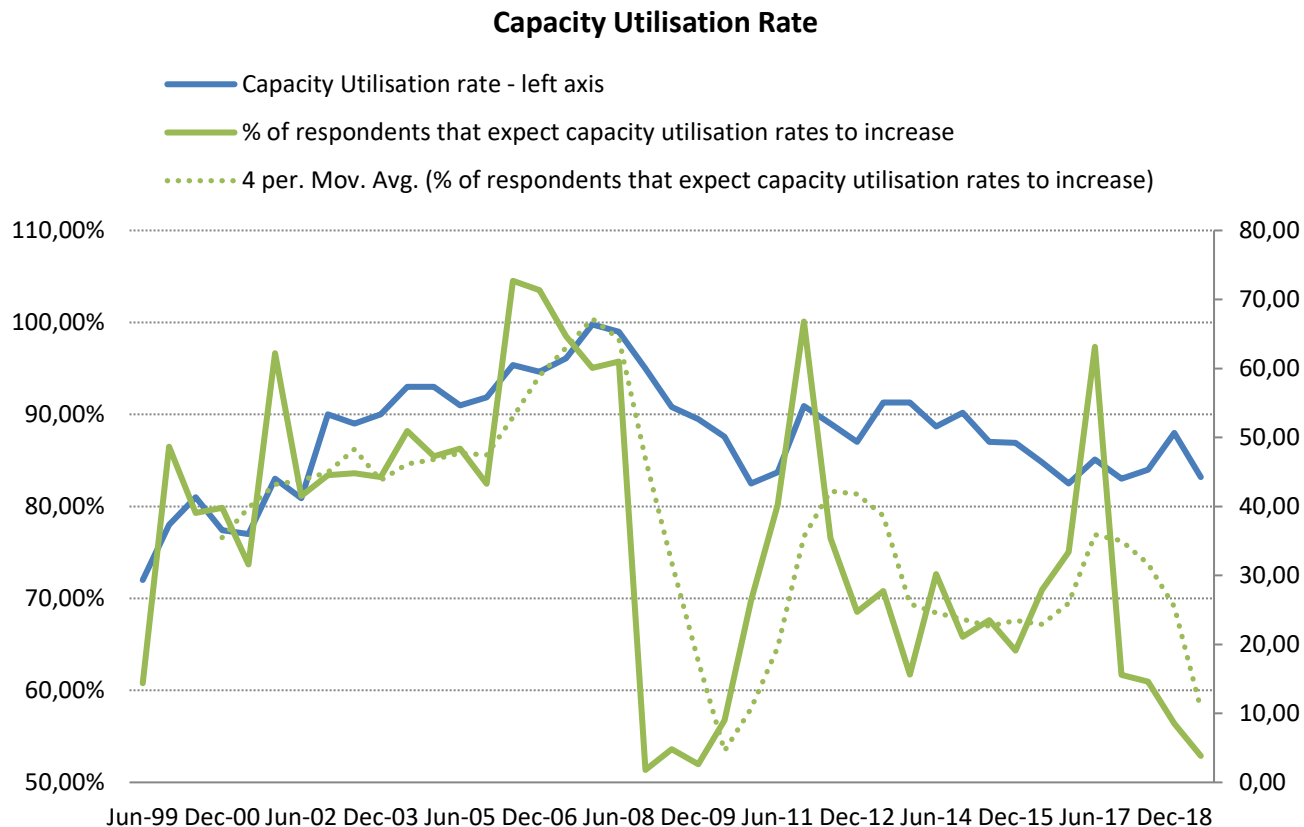


Figure 13: Capacity Utilisation Rate

Capacity utilisation of technical staff has steadily decreased since 2013, and averaged 83 percent, from 88 percent reported in the December 2018 survey. The vast majority of firms (88.1 percent) still expect their capacity utilization to be static over the next period. A total of 3.9 percent of firms expect an increase, which is the lowest level recorded since the global financial crisis in 2008/09. Very few firms, 9.1 percent, expect capacity to further decrease.

Small and micro firms reported the highest level of capacity utilisation, at 89.4 percent and 84.4 percent respectively. Medium sized firms reported the lowest level of just 78 percent.

3.4 Competition in tendering

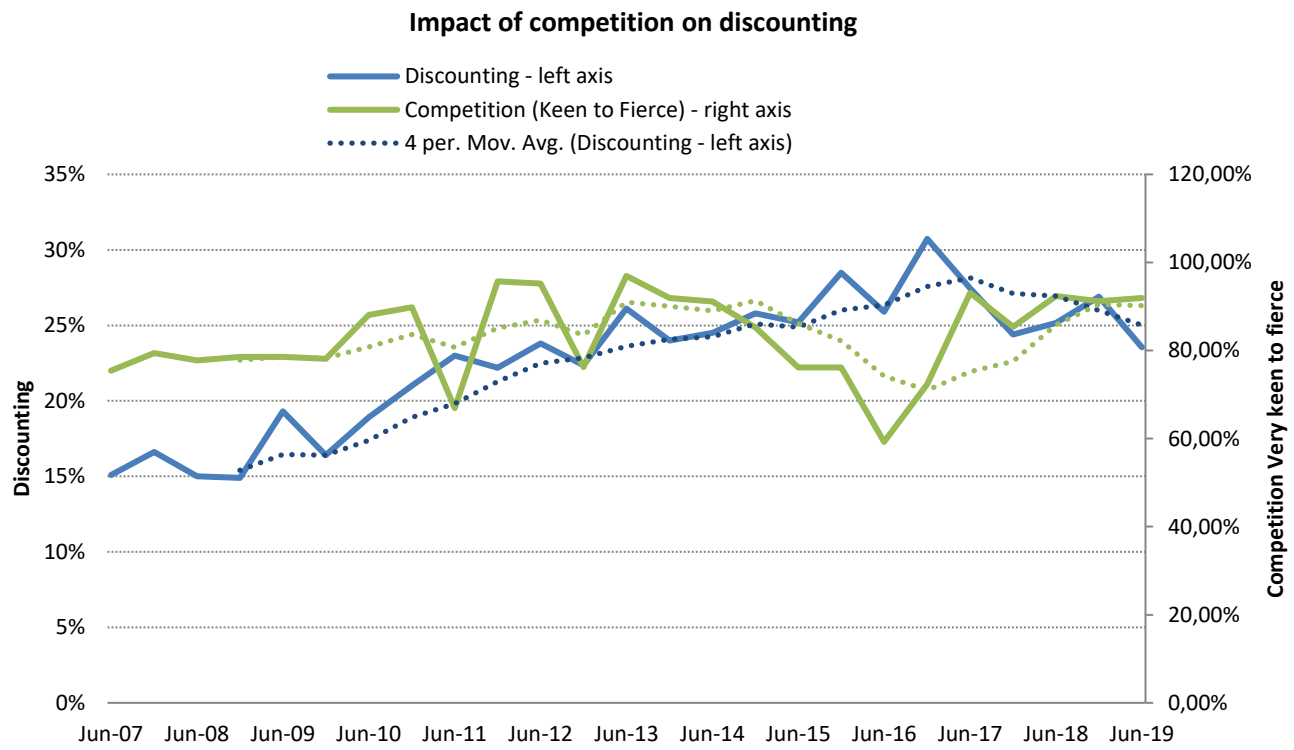


Figure 14: Competition and Discounting

Competition in tendering generally eases during a time when the availability of work increases and intensifies during periods of work shortages. An easing of competition will generally lead to an increase in prices, while price inflation is capped during periods of work shortages due to the fact that an increasing number of firms tender on the same project. The tendering process is costly and time consuming, and higher levels of competition significantly increase the risk for the engineering firm.

In line with a very competitive environment, an increasing number of firms continue to report on very keen fierce competition. In this survey 91.9 percent reported on very keen to fierce competition, in line with the previous survey, from an also high 91.3 percent. This is however significantly up from an average of 65.8 percent in 2016. Higher levels of competition are however more experienced by larger firms, with 94.3 percent reporting on very keen to fierce completion, while 86.4 percent of medium size firms experienced similar levels of competition. Micro firms reported the lowest level of strong competition, averaging 61.8 percent (very keen to fierce).

Higher levels of competition is supported by higher tendencies to discount hence the clear correlation between the level of discounting and competition. As competition started to intensify after 2009, the propensity to discount also started to accelerate. The average discounting rate did however moderate slightly again in the current survey, as well as the previous June 2018 survey, to an average of 23.6 percent in the current survey. Large size firms again reported the highest level of discounting at 29.4, followed by small and micro firms (24.7 and 23.1 percent respectively). *Discounted rates are benchmarked against the 2015 ECSA Guideline fee scales.*

Firm Size Category	Capacity Utilisation of existing technical staff during the past 6 months	% of Respondents that expect capacity utilisation of technical staff to increase over the next 6 months	Average discount being offered by respondents in tendering situation to clients, benchmarked against the ECSA guideline fee scales	% of Respondents that reported Very Keen to FIERCE Competition for work during the first six months
Large	83.0	3.3%	29.44	94.3%
Medium	78.0	3.8%	20.45	86.4%
Small	89.4	49.8%	24.72	85.8%
Micro	84.2	46.1%	23.08	61.8%
Industry Average	80.8 (Weighted)	3.9% (Weighted)	23.2(Weighted)	91.9 (Weighted)

3.5 Pricing

No specific escalation index is available for the consulting engineering industry. After exploring many different avenues it was proposed to calculate a CESA Cost index that is based on a “labour unit cost” and extracted directly from the CESA BECS Survey. This should accommodate at least between 60% and 65% of the firms’ costs and should therefore, in theory, be a reliable indicator of escalation. The CPI is currently used to deflate all financial information, until such time CESA officially applies the CESA Labour cost index as an industry price deflator.

The index is based on the sample of total number of employees versus the salaries and wages paid during the period under review.

According to CESA’s labour cost indicator, the average unit cost of labour (smoothed over a two survey period to remove short term volatility) for the industry, accelerated by 2.3 percent since the first six months of 2019, and is the fifth consecutive increase since the December 2016 survey, albeit more marginal.

While changes in the general cost of living (as measured by the Statistics South Africa’s Consumer Price Index) are clearly not indicative of labour cost changes in the consulting engineering industry, the CPI may have a strong influence in the determination of ECSA Guideline Fees, which has shown an average increase of 4.3 percent in the first half of 2019, from 5.0 percent in the second half of 2018, and is expected to remain under 6 percent for 2019 and 2020, according to the Reserve Bank.

Figure 15: CESA Labour Cost Indicator (LCI)

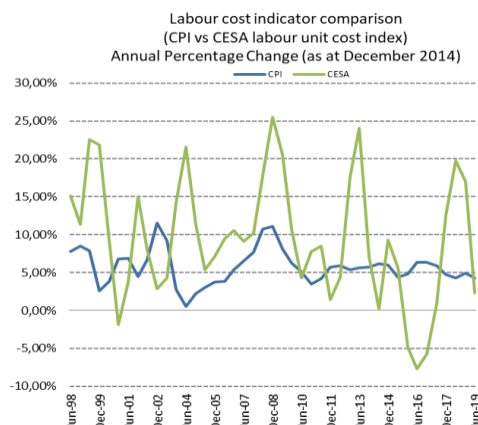
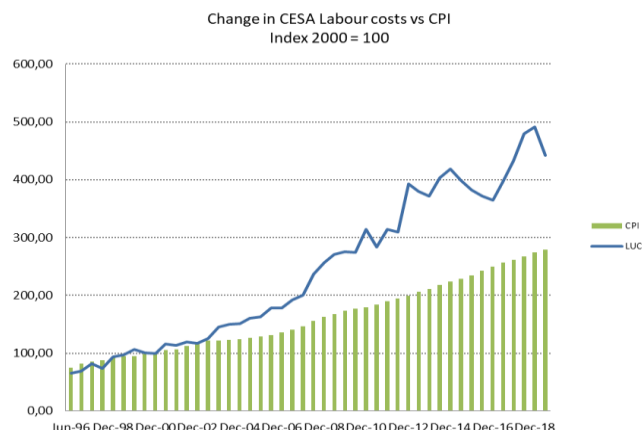


Figure 16: Change in CESA LCI vs CPI



4. Industry Outlook

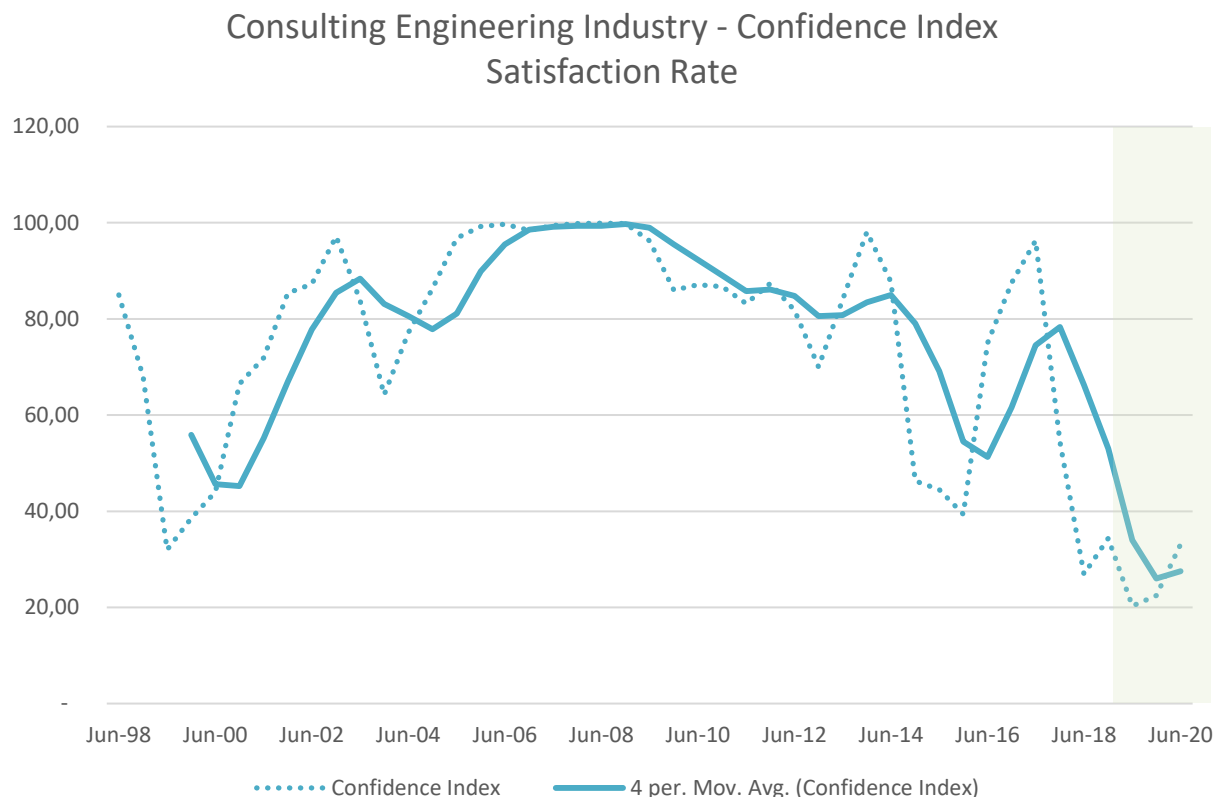


Figure 17: Confidence Index

Explanatory note: The confidence index, as an indicator of members' assessments regarding current and future prospects with regard to market developments, and is a "weighted" index. The response of each company is weighted according to its total employment, including full and part time staff, and the index represents the net percentage of members satisfied with business conditions.² The confidence index is used as a leading indicator to determine a short to medium term outlook for the consulting engineering industry.

Confidence levels remained low with a nett satisfaction rate of just 20.3 percent. This is a new record low, based on the results of the surveys over the years since the mid-90's. Respondents are clearly rightfully concerned about the overall outlook for the industry in general and the economy. Respondents in the survey are also not much more hopeful for the remainder of the year, but have a bit more optimism for the early stages of 2020, with a nett satisfaction rate of 33.1 for the first half of 2020, which is still historically low, but a good improvement from current levels.

The large firms are by far the least confident, and are the reason the index is so low in the current six month period again. Confidence levels for larger firms were just 13.8 percent, while levels are much higher for medium, small and micro firms, with confidence of 51.8, 63.2 and 54.0 respectively. Although higher for the smaller firms, this is still a big decrease from levels of over 80 percent reported in the previous surveys.

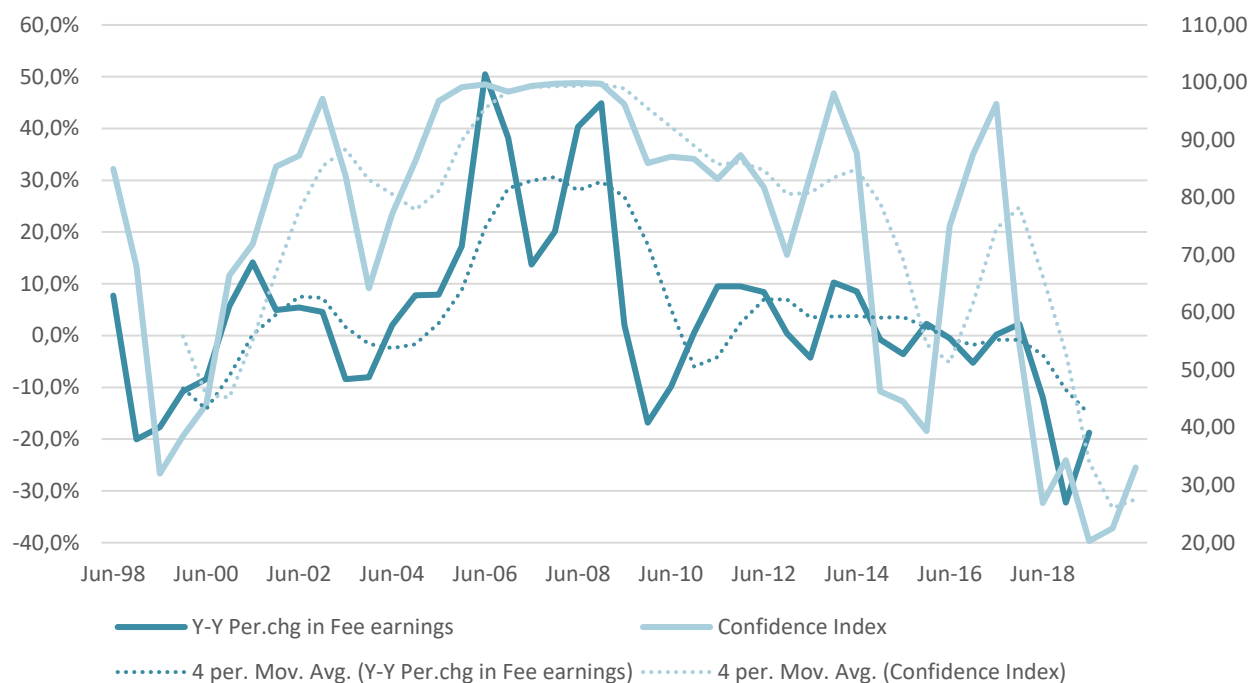
A breakdown by firm size category is provided in the table below.

² The net percentage reflects only those members that expect conditions to be satisfactory, quite busy or very busy.

Table 9: Confidence as at June 2019 by firm size category (% of respondents that experienced satisfactory business conditions)

Firm size category	First six months of 2019	Next 6 months	Next 12 months
Large	13,8%	13,8%	27,4%
Medium	51,8%	60,3%	62,0%
Small	63,2%	76,9%	72,0%
Micro	44,7%	63,2%	71,1%
Industry Average	20,3%	22,5%	33,1%

Annual Change in Real Earnings of Consulting Engineering vs Confidence



Confidence levels amongst firms have deteriorated over the last few years, and are also showing signs of increased volatility, evidence of higher levels of uncertainty brought about by domestic and political turmoil. Firms do however think that we have reached the lowest point in the cycle, as confidence, although still historically low, is improved for the next 12 month period. Firms were however of the same opinion in the last survey, and the index reached an even lower point, contrary to expectations.

It will then be interesting to see whether improved confidence going forward results in improved fee income and employment. In our opinion, it will unfortunately not.

Table 10: CESA Confidence index: % respondents satisfied with working conditions

Survey Period	CESA Confidence Index	% Change on previous survey	% Change on survey same time last year
Jun-05	96.8	12.2%	25.4%
Dec-05	99.3	2.5%	14.9%
Jun-06	99.7	0.5%	3.0%
Dec-06	98.4	-1.30	-0.8
Jun-07	99.4	1.0%	-0.3%
Dec-07	99.8	0.4%	1.4%
Jun-08	99.9	0.1%	0.5%
Dec-08	99.8	-0.1%	0.0%
Jun-09	96.2	-3.6%	-3.7%
Dec-09	86.0	-10.6%	-13.8%
Jun-10	87.1	1.3%	-9.4%
Dec-10	86.7	-0.5%	0.8%
Jun-11	83.2	-4.0%	-4.5%
Dec-11	87.4	5.0%	0.8%
Jun-12	81.8	-6.4%	-1.7%
Dec-12	70.0	-14.4%	-19.9%
Jun-13	84.0	20.0%	2.7%
Dec-13	98.1	16.8%	40.1%
Jun-14	87.7	-10.6%	4.4%
Dec-14	46.3	-47.2%	-52.8%
Jun-15	44.5	-3.9%	-49.3%
Dec-15	39.4	-11.5%	-14.9%
Jun-16	75.0	90.4%	68.5%
Dec-16	87.5	16.7%	122.1%
Jun-17	96.3	10.1%	28.4%
Dec-17	55.4	-43.5%	-37.8%
Jun-18	26.89	-50.6%	-72.1%
Dec-18	34.36	27.8%	-36.8%
Jun-19	20.29	-41.0%	-24.6%
Dec-19 (forecast)	22.48	10.8%	-34.6%
Jun-20 (forecast)	33.08	47.1%	63.1%

So how does the business environment perceptions in the consulting engineering industry compare with the contracting industry and business in general?

CESA vs SAFCEC Confidence Satisfaction rate (including Satisfactory to Very Good business conditions)

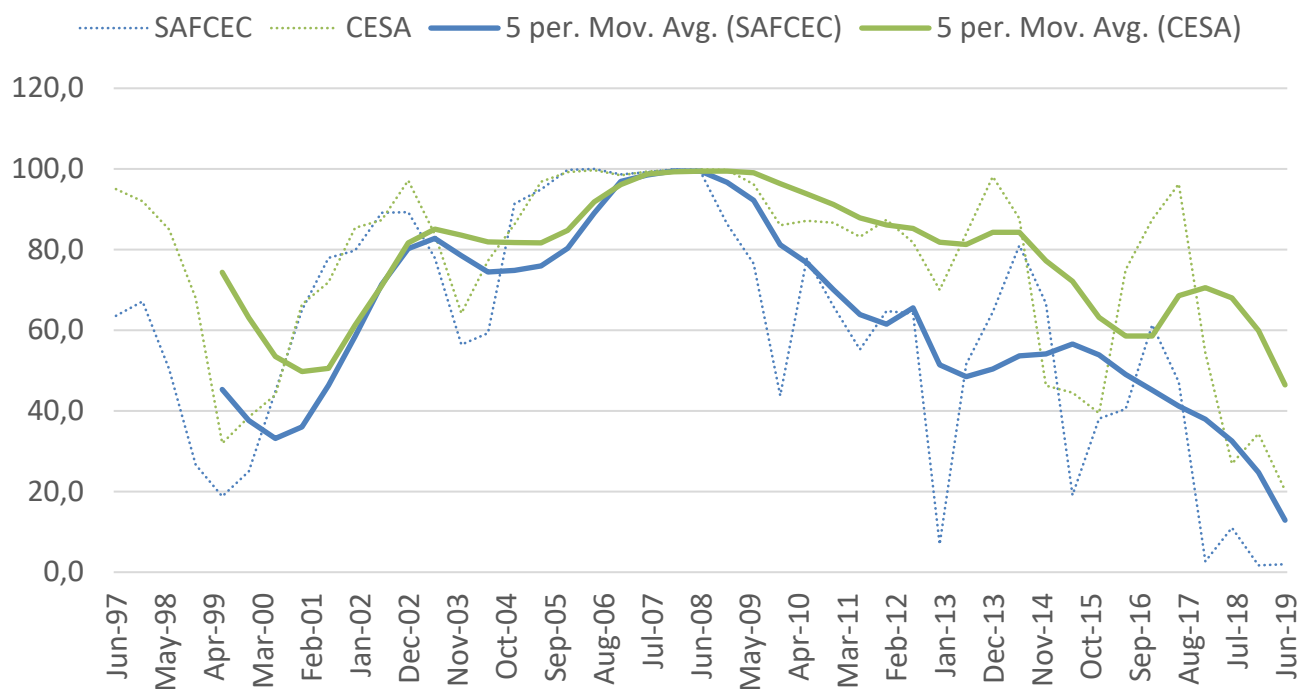


Figure 18: CESA vs SAFCEC

The relationship between confidence levels of engineers and civil contractors deteriorated from 2009 onwards as the business environment, in terms of consulting engineering, did not seem to deteriorate at the same pace as that experienced by the civil construction industry. Contractors have for some time reported on the slow pace by which contracts are awarded, as well as the extremely slow roll out of government projects, especially in the last survey. This creates disconnect between opinions expressed by engineers and contractors, where projects are in planning stages, supporting earnings in the consulting engineering industry, but implementation is extremely slow, negatively affecting turnover in the construction sector. Both consulting engineers and contractors experienced improved conditions during 2014, although this was short lived and confidence levels took another dip in 2015. The trend does seem to be correlated for the last two data points, with confidence turning very negative. The CESA confidence index has now reached t's lowest point ever, which although is not the rock bottom of the civil engineering confidence index, it is in line with the civil index in that it is the lowest historical point. The lack of public work has been the bane of the civil engineering industry, and the greater exposure to private sector work by consulting engineers can explain the difference in the indices.

Confidence in the consulting engineering sector generally lags business sentiment. Business confidence has been below or close to the 50 level for the past 8 years, (which means business is mostly pessimistic regarding business conditions), at first due to uncertain outlook on interest rates and inflation, slowing economic growth and now further constrained by political instability, policy uncertainty and credit rating downgrades. Market sentiment amongst the private sector is important to the engineering industry, since the private sector contributes on average, nearly 40 percent to total

earnings, which is why it is important for confidence levels to be restored to a level of between 60 and 70 in order to stimulate higher levels of investment.

5. Market Profile

5.1 Sub-disciplines of fee income earned

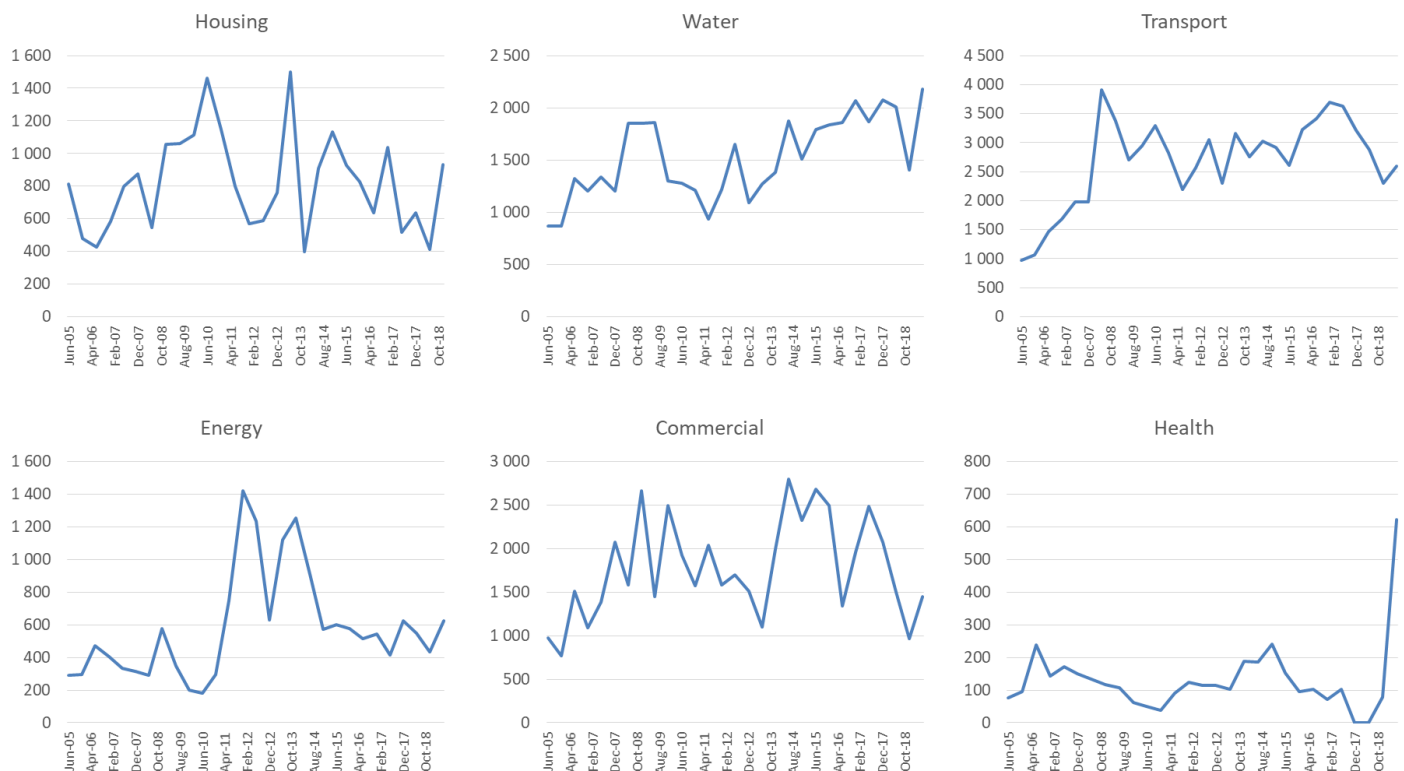
The South African consulting engineering industry is represented by many different sub-disciplines. The most common disciplines within larger firms include civil and structural services, contributing 51.8 percent and 11.1 percent in earnings during the last six months of 2018. The contribution of electrical work increased to 8.4 percent (from an average of 4.2 percent in 2016). The growing contribution of the civil sector as a percentage of earnings is encouraging for the civil engineering contracting industry as this will have a direct impact on pipeline work in the civil industry, although this has not been observed yet. Mining also remained elevated at 8.5 percent.

Details of the various sub-disciplines are provided for under Statistical Tables.

5.2 Economic Sectors

The economic sectors include all infrastructure associated within that sector including expenditure related to soft issues such as feasibility studies or environmental assessments. From this, three key sectors evolved namely transportation, commercial and water services. The contribution by the transport and water services as well as commercial was relatively unchanged. What was noticeable this survey, was the greater contribution of health related projects, which is surprising given the cuts to health specific infrastructure at the budget at the beginning of the year.

The charts below depict trends in rand terms.



The table below provides a snapshot of earnings by sector categorized between large, medium, small and micro firms.

Table 11: Distribution of fee earnings by economic sector, by firm size

	GAU	KZN	WC	EC	NC	MPU	FS	LIM	NW	AFRICA	INT	Total
A	28%	12%	25%	12%	7%	1%	4%	2%	1%	8%	0%	100%
B	16%	13%	20%	15%	11%	5%	7%	2%	4%	4%	4%	100%
C	42%	13%	6%	12%	0%	14%	1%	7%	1%	5%	0%	100%
D	15%	6%	35%	19%	0%	6%	0%	14%	3%	0%	0%	100%
Grand Total	26%	12%	24%	12%	7%	2%	5%	3%	1%	7%	1%	100%

Table 12: Distribution of fee earnings by province, by firm size

	WATER	Transportation	Energy	Mining	Education	Health	Tourism	Housing	Commercial	Agriculture	Eco other	Total
A	20%	25%	5%	12%	1%	6%	0%	9%	14%	0%	7%	100%
B	30%	28%	6%	5%	3%	3%	0%	8%	15%	0%	2%	100%
C	6%	15%	33%	0%	2%	4%	0%	14%	14%	7%	3%	100%
D	23%	9%	6%	0%	1%	0%	1%	23%	11%	2%	25%	100%
Grand Total	20%	25%	6%	10%	1%	6%	0%	9%	14%	1%	7%	100%

5.3 Geographic Location

Provincial Distribution of earnings

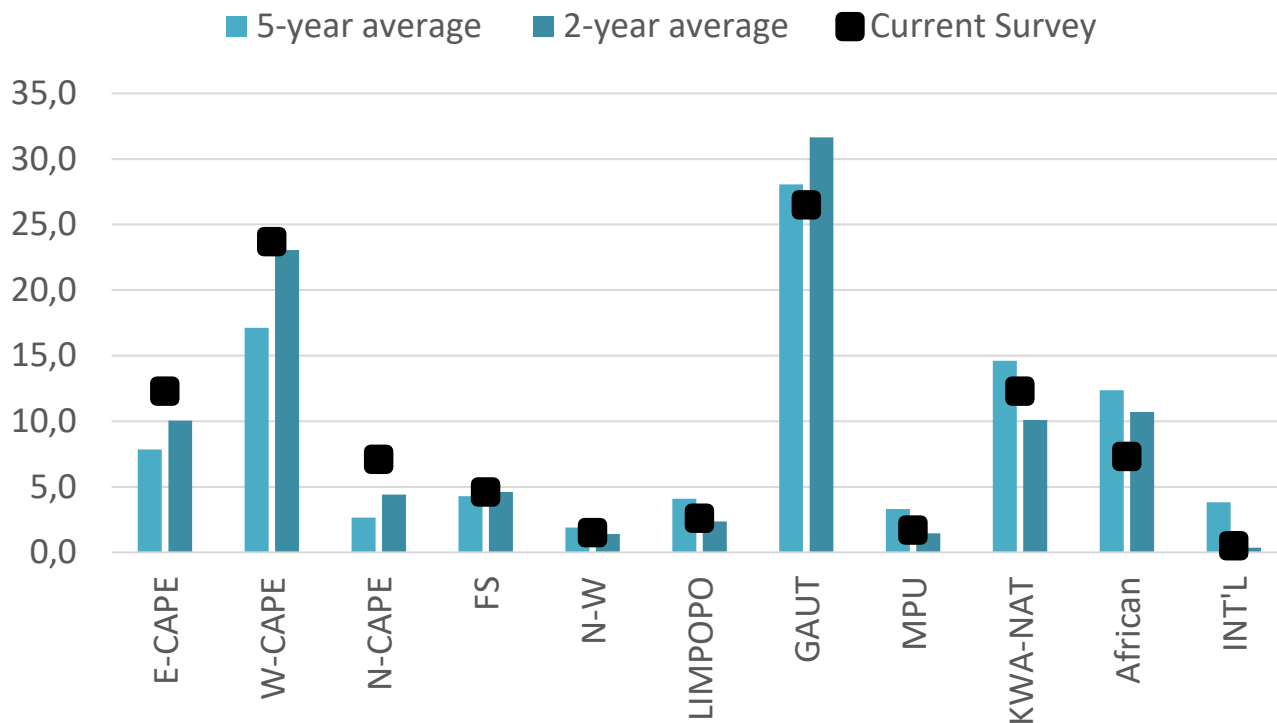


Figure 19: Provincial Distribution of earnings

The contribution of Gauteng to total earnings decreased substantially in this survey to 26.5 percent in the current survey, compared to just 36.8 percent in the previous survey. The contribution within the Eastern Cape increased markedly in the current survey to 12.3 percent, which is one of the highest contributions ever recorded in this survey. The Western Capes contribution has remained more or less constant over the last 3-4 surveys, and increased to 23.7 percent in the current survey which is the highest since 2006.

Earnings in Africa decreased in the current survey to just 7.3 percent of earnings, from over 14 percent in the previous survey and does come as somewhat of a surprise, given that a strategy has been to look for work outside of South Africa, to supplement business. In terms of international work, this was just 0.5 percent of total earnings.

5.4 Clients

The contribution to fee earnings by the private sector remained high in the current survey at 40.7 percent from 42.0 percent, now more in line with the two and five year average, as the private sector continues to supplement a lack of work coming from the state. This is a notable shift over the last few surveys. The stronger increase in the private sector means the contribution by provincial and central government decreased to 9.9 percent and 8.5 percent respectively (from 7.2 percent and 30.8 percent in the December 2018 survey).

The contribution by SOE's stayed at low levels, slightly up to 13.5 percent (from 9.8 percent), more in line with the longer term averages now. There is a general consensus that there has been significantly less work coming out of the SOE's over the past few years, as they have become more and more inefficient, with corruption and other factors hindering their performance significantly and catching up with the entities.

The public sector is generally regarded as the most important client to the industry, but due to the increased contribution by the private sector in the last few surveys, the combined representation of the public sector (including central, provincial, local government and SOE's) increased slightly to 59.3 percent from 58 percent in the previous survey, while the contribution by the private sector decreased to 40.7 percent. The role of the public sector however remains critical to the engineering profession and particular for medium and smaller firms. A breakdown of earnings by client type and firm size is provided in the table below.

Client Distribution based on fee earnings

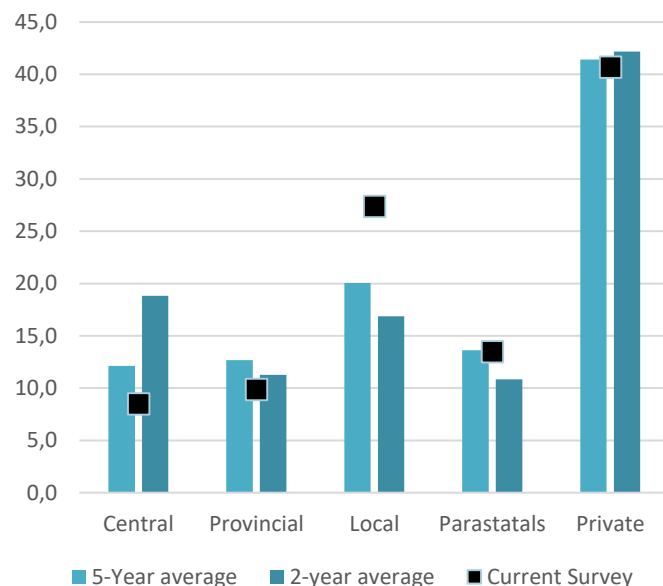


Figure 20: Distribution of earnings by client type

Table 13: Fee earnings distribution by client by firm size

	Central	Provincial	Local	Parastatals	Private	Total
Large	8.1%	9.1%	25.7%	14.3%	42.8%	100.0%
Medium	7.4%	17.9%	45.5%	9.7%	19.5%	100.0%
Small	18.3%	3.8%	11.8%	8.3%	57.8%	100.0%
Micro	21.3%	14.0%	30.1%	1.5%	33.0%	100.0%
Total	8.5%	9.9%	27.4%	13.5%	40.7%	100.0%
Average 2-Year	18.8	11.3	16.9	10.8	42.2	100.0%
Average 5-year	12.1	12.7	20.1	13.6	14.4	100.0%

6. Industry challenges as noted by respondents

Many of the challenges were noted before but as they are still applicable are included again in this report. No additional challenges were raised by respondents in the December 2018 survey.

- Many commented that they are currently in survival mode.
- Regulation issues, including the procurement of consulting engineering services, remain one of the biggest challenges faced by the industry. Procurement is currently based on price and broad-based black economic empowerment (BBBEE) points, with functionality or quality having a minimum threshold, thus being largely price driven. This is affecting tender prices, as firms sometimes tender below cost in view of the diminished availability of projects.
- Unrealistic tendering fees remain a concern for members, while the extended time it takes in which to finalise a proposal is affecting profitability in the industry.
- The quality of technical personnel is argued by some firms to have deteriorated, putting greater risk on the built environment sector. Skills shortage is regarded as one of the most significant institutional challenges faced by the private and the public sector. CESA has offered their services to government to procure and implement projects.
- Fraud and corruption is affecting the ethos of our society, with a lot of talk and little action accompanying the growing evidence of corruption. CESA is aware that members are under pressure from contractors and corrupt officials, to certify payment for work not completed. This is regarded as an extremely serious matter for CESA and as such will be relentless in holding those in power accountable.
- Unlocking greater private sector participation is seen as a critical element to fast track delivery which will support engineering fees and as such engineering development in the industry. Transnet for example has recently called for private sector investment to support their capital investment programme. Private sector participation in this context refers to involvement on a more technical level (and not as a client), to improve municipal capacity and efficiency. Government must create an environment for the private sector so that it can play a much bigger role in infrastructure delivery. Many of the projects highlighted in the NDP can be carried out by the private sector through public-private partnerships.
- Service delivery, especially at municipal level remains a critical burning issue. The consulting engineering industry is threatened by incapacitated local and provincial governments. As major clients to the industry, it is important that these institutions become more effective, more proactive in identifying needs and priorities and more efficient in project implementation and – management.
- The involvement of non-CESA members in government tenders and procurement continues to threaten the standard and performance of the industry. Non-CESA members do not seem to comply with the same standards and principles as those firms that are members of CESA. Whether this is linked to complaints of “below cost” tendering during 2009, is not certain, but CESA members should be better informed about engaging in below cost tendering.
- Firms from across South African borders are tendering at rates that are not competitive for local firms. Complaints have been received of some of these firms not producing proper drawings and not attending site visits. Clients, unfortunately, are not always properly experienced or educated to conduct proper procurement assessments and unknowingly award contracts to these “unscrupulous” firms. While these occurrences may be limited to smaller rural areas, it remains an unacceptable practice.
- Lack of attention to maintain infrastructure poses a serious problem for the industry. Not only is it much more costly to build new infrastructure, but dilapidated infrastructure hampers economic growth potential. The cost of resurfacing a road after seven years at current prices, is estimated at R175 000 per kilometer, compared to R3 million per kilometer to rebuild, less than 6% of the construction price. In many cases, infrastructure is left to deteriorate to such a state, that maintenance becomes almost impossible.
- A further challenge to the industry is to find a way to standardize the procurement procedures applied by the different government departments. Procurement procedures should be standard for the country, or at least for the specific tier of government.
- Adapting to a low growth environment as outlook for infrastructure spending is hampered by poor economic growth, lower than expected revenue by government, international economic instability and price volatility, and low private sector confidence.
- Requirement as set out in the Construction Sector Charter inhibit small firms to competitively tender on government projects, requiring them as such to be more reliant on private sector work. In this survey small and micro enterprises earned between 44 percent and 62 percent from the private sector.

Statistical Tables

Table 14: General financial indicators

Survey period	Employment ³	Salaries / Wages 2000 prices (Annualised)	Fee Income, R mill (Annualised)			Cost Deflator	
			Current prices	Constant 2000 prices	Y/Y real % change	CPI Index 2000 = 100	CPI y/y % Change
Jun-10	19.632	4.723	15.433	8.746	-9.8%	176.5	5.1%
Dec-10	19.357	5.220	15.588	8.699	0.5%	179.2	3.5%
Jun-11	19.937	5.650	17.614	9.576	9.5%	183.9	4.2%
Dec-11	19.618	6.002	18.054	9.527	9.5%	189.5	5.8%
Jun-12	20.796	6.124	20.221	10.380	8.4%	194.8	5.9%
Dec-12	19.964	6.316	19.109	9.569	0.4%	199.7	5.4%
Jun-13	24.356	6.557	20.446	9.935	-4.3%	205.8	5.6%
Dec-13	23.625	6.226	22.286	10.552	10.3%	211.2	5.8%
Jun-14	23.389	7.006	23.557	10.799	8.5%	218.2	6.2%
Dec-14	22.921	6.808	23.439	10.474	-0.7%	223.8	5.9%
Jun-15	23.838	6.857	23.697	10.389	-3.6%	228.10	4.4%
Dec-15	24.315	6.748	25.119	10.712	2.3%	234.50	4.8%
Jun-16	24.072	6.511	25.068	10.335	-0.5%	242.6	6.3%
Dec-16	23.349	6.699	25.319	10.150	-5.2%	249.4	6.4%
Jun-17	24.283	6.522	26.585	10.352	0.2%	256.82	5.9%
Dec-17	21.369	6.226	27.117	10.377	2.2%	261.31	4.8%
Jun-18	23.934	6.288	24.405	9.113	-12.0%	267.80	4.3%
Dec-18	21.540	4.851	19.280	7.030	-32.3%	274.26	5.0%
Jun-19	21.002	5.109	20.687	7.405	-18.7%	279.38	4.3%

Table 15: Consulting Engineering Profession: Financial indicators: Annual Percentage Change (Real)

Survey period	Employment	Salary and Wage bill	Fee income	Cost escalation based on CPI index (Stats Sa)
Jun-10	0.2%	-8.1%	-9.8%	5.10%
Dec-10	0.1%	4.0%	0.5%	3.50%
Jun-11	1.6%	19.6%	9.5%	4.20%
Dec-11	1.4%	15.0%	9.5%	5.80%
Jun-12	4.3%	8.4%	8.4%	5.90%
Dec-12	1.8%	5.2%	0.4%	5.40%
Jun-13	17.1%	7.1%	-4.3%	5.60%
Dec-13	18.3%	-1.4%	10.3%	5.80%
Jun-14	-4.0%	7.0%	8.7%	6.20%
Dec-14	-2.9%	9.4%	-0.7%	5.90%
Jun-15	1.9%	-2.1%	-3.6%	4.4%
Dec-15	6.1%	-0.9%	2.3%	4.8%
Jun-16	1.0%	-5.0%	-0.5%	6.3%
Dec-16	-3.9%	-0.7%	-5.2%	6.4%
Jun-17	0.9%	0.2%	0.2%	5.9%
Dec-17	-8.5%	-7.1%	2.2%	4.8%
Jun-18	-1.4%	-3.6%	-12.0%	4.3%
Dec-18	0.8%	-22.1%	-32.3%	5.0%
Jun-19	-12.3%	-18.7%	-18.7%	4.3%

³ Revised June 2007

Table 16: Sub-disciplines: Percentage share of earnings

Sub-discipline	Jun-18	Dec-18	Jun-19	5-year average	2-year average	Deviation 5-year	Deviation 2-year	Deviation last six months
Agricultural	0.9%	0.6%	0.7%	0.8%	0.8%	-0.1%	0.0%	0.1%
Architecture	0.2%	0.4%	1.0%	0.6%	0.4%	0.5%	0.6%	0.7%
Mechanical building Services	1.8%	6.7%	3.1%	4.0%	4.2%	-0.9%	-1.0%	-3.6%
Civil	55.7%	53.7%	51.8%	52.2%	54.0%	-0.3%	-2.2%	-1.8%
Electrical / Electronic	7.0%	5.4%	8.4%	5.7%	6.3%	2.7%	2.1%	3.0%
Environmental	1.4%	8.1%	1.7%	3.7%	3.7%	-2.0%	-2.0%	-6.4%
Facilities Management (New)	0.9%	0.0%	0.6%	0.4%	0.4%	0.1%	0.2%	0.6%
Geotechnical	0.4%	2.0%	0.9%	1.3%	1.2%	-0.4%	-0.3%	-1.0%
Industrial Process / Chemical	0.1%	0.2%	0.4%	1.5%	0.3%	-1.2%	0.0%	0.2%
GIS	0.1%	1.1%	0.6%	0.6%	0.5%	0.0%	0.1%	-0.4%
Hydraulics (New)	0.2%	1.2%	1.4%	0.7%	1.0%	0.7%	0.4%	0.2%
Information Systems / Technology	0.0%	0.0%	0.1%	1.7%	0.0%	-1.6%	0.1%	0.1%
Marine	1.0%	0.3%	0.1%	0.6%	0.4%	-0.4%	-0.2%	-0.1%
Mechanical	1.2%	0.4%	1.3%	3.1%	1.4%	-1.8%	-0.1%	0.9%
Mining	4%	2.3%	8.5%	1.9%	3.8%	6.7%	4.7%	6.3%
Project Management	7%	7.2%	5.3%	7.4%	7.0%	-2.1%	-1.7%	-1.9%
Quantity Surveying	0%	0.3%	0.1%	0.2%	0.2%	-0.1%	-0.1%	-0.2%
Structural	18%	9.8%	11.1%	12.7%	13.3%	-1.7%	-2.2%	1.3%
Town planning	0%	0.4%	2.7%	0.7%	0.9%	2.0%	1.8%	2.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%			

Table 17: Sub-disciplines, Fee income R mill, Real 2000 prices

Sub-discipline	JUN18	DEC18	JUN19	Change last six months	Change last 12 months
Agricultural	79	64	100	57%	26%
Architecture	21	41	60	48%	182%
Mechanical building Services	161	695	408	-41%	153%
Civil	5 080	5 554	5 291	-5%	4%
Electrical / Electronic	637	556	610	10%	-4%
Environmental	127	839	403	-52%	219%
Facilities Management (New)	84	3	43	1118%	-49%
Geotechnical	32	202	141	-30%	334%
Industrial Process / Chemical	9	18	174	846%	1933%
GIS	5	109	61	-44%	1036%
Hydraulics (New)	18	127	71	-44%	289%
Information Systems / Technology	0	4	179	4318%	60601%
Marine	90	28	60	114%	-33%
Mechanical	108	37	383	932%	255%
Mining	320	236	115	-51%	-64%
Project Management	650	745	825	11%	27%
Quantity Surveying	20	35	24	-33%	19%
Structural	1 648	1 015	1 345	32%	-18%
Town planning	24	42	85	101%	250%
Total	9113	10 352	10 377	14%	0%

Table 18: Provincial Distribution, R mill, Real 2000 prices (Annualized, two survey average)

Province	Survey period							
	Dec-15	Jun-16	Dec-16	Jun-17	Dec-17	Jun-18	Dec-18	Jun-19
EC	643	1.085	721	704	751	650	683	12.30
WC	1.393	1.530	1.685	1.884	1.819	1 738	2 119	23.70
NC	171	331	284	197	171	155	179	7.10
FS	386	331	548	590	560	379	365	4.60
NW	182	320	142	145	176	158	128	1.50
LIM	407	227	497	321	295	768	814	2.60
GAU	2.485	1.943	3.309	3.602	3.332	2 688	3 194	26.50
MPU	428	630	416	279	295	315	240	1.70
KZN	1.928	2.914	1.066	1.387	1.617	1 425	967	12.30
AFRICAN	1.767	847	1.228	1.128	1.197	1 234	1 400	7.30
INT'L	932	176	254	114	150	235	168	0.50
Total	10.722	10.335	10.150	10.352	10.364	9 745	10 256	100

Table 19: Provincial Distribution Y-Y percentage Change*(Trend – SMOOTHED over two consecutive surveys, to remove short term volatility)*

Province	Survey period							
	Dec-15	Jun-16	Dec-16	Jun-17	Dec-17	Jun-18	Dec-18	Jun-19
EC	-16.6%	11.1%	37.0%	-17.6%	-16.8%	-8.7%	-9.1%	19.0%
WC	-8.4%	4.9%	11.7%	22.1%	13.2%	-2.6%	16.5%	26.3%
NC	-37.4%	-1.9%	71.6%	-4.2%	-44.4%	-35.7%	4.9%	7.3%
FS	73.3%	-16.1%	-8.2%	58.9%	27.4%	-33.5%	-34.8%	21.6%
NW	-14.6%	-10.8%	0.0%	-42.9%	-23.8%	10.4%	-27.3%	-18.3%
LIM	1.7%	8.5%	15.9%	29.0%	-18.5%	87.8%	175.6%	-74.1%
GAU	-9.5%	-19.9%	-3.4%	56.1%	26.9%	-22.2%	-4.1%	35.1%
MPU	2.5%	49.2%	39.5%	-34.3%	-43.5%	-9.4%	-18.8%	-62.7%
KZN	52.0%	72.6%	14.8%	-49.3%	-18.7%	16.2%	-40.2%	-44.8%
AFRICAN	2.3%	-13.9%	-34.1%	-9.9%	15.4%	4.8%	16.9%	12.0%
INT'L	-20.6%	-42.7%	-74.9%	-66.8%	-30.0%	27.7%	11.5%	-91.7%
Total	-0.7%	0.9%	-3.0%	-2.6%	1.2%	-4.9%	-1.0%	1.0%

Table 20: Provincial Distribution percentage share of earnings

Province	Survey period								5-year average	2-year average
	Dec-15	Jun-16	Dec-16	Jun-17	Dec-17	Jun-18	Dec-18	Jun-19		
EC	6.0	10.5	7.1	6.8	7.7	5.5	7.8	12.3	7.9	10.1
WC	13.0	14.8	16.6	18.2	16.9	18.9	22.4	23.7	17.1	23.1
NC	1.6	3.2	2.8	1.9	1.4	1.8	1.7	7.1	2.6	4.4
FS	3.6	3.2	5.4	5.7	5.1	2.5	4.6	4.6	4.3	4.6
NW	1.7	3.1	1.4	1.4	2.0	1.2	1.3	1.5	1.9	1.4
LIM	3.8	2.2	4.9	3.1	2.6	13.9	2.1	2.6	4.1	2.4
GAU	23.2	18.8	32.6	34.8	29.5	25.4	36.8	26.5	28.1	31.7
MPU	4.0	6.1	4.1	2.7	3.0	3.5	1.2	1.7	3.3	1.5
KZN	18.0	28.2	10.5	13.4	17.8	11.0	7.9	12.3	14.6	10.1
AFRICAN	16.5	8.2	12.1	10.9	12.2	13.2	14.1	7.3	12.4	10.7
INT'L	8.7	1.7	2.5	1.1	1.8	3.1	0.2	0.5	3.8	0.4
Total	100%	100%	100%	100%	100%	100%	100%	100%		

Table 21: Client Distribution Fee income earned, R mill, Real 2000 prices (Annualized)

Client	Survey period						
	Jun-16	Dec-16	Jun-17	Dec-17	Jun-18	Dec-18	Jun-19
Central	413	1.015	1.035	1 038	2 369	2 165	775
Provincial	1.550	1.421	725	1 764	1 002	506	902
Local	2.377	2.538	1.863	1 868	1 094	710	2 497
State Owned	1.654	1.827	1.656	1 557	456	689	1 230
Private	4.237	3.350	5.072	4 151	4 192	2 953	3 709
Total	10.232	10.150	10.352	10 377	9 113	7 023	9 113

Table 22: Client distribution Percentage share of earnings

Client	Survey period						Jun-19	5-year average	2-year average
	Jun-16	Dec-16	Jun-17	Dec-17	Jun-18	Dec-18			
Central	4.0	10.0	10.0	10.0	26.0	30.8	8.5	12.1	18.8
Provincial	15.0	14.0	7.0	17.0	11.0	7.2	9.9	12.7	11.3
Local	23.0	25.0	18.0	18.0	12.0	10.1	27.4	20.1	16.9
State Owned	16.0	18.0	16.0	15.0	5.0	9.8	13.5	13.6	10.8
Private	41.0	33.0	49.0	40.0	46.0	42.0	40.7	41.4	42.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0		

Table 23: Economic sector Percentage share of earnings

Economic sector	Jun-18	Dec-18	Jun-19	5-year average	2-year average	Deviation 5-year	Deviation 2-year	Deviation last six months
Water (Full water cycle)	22%	20%	21%	18.7%	20.2%	3.3%	1.8%	2.0%
Transportation (land, air, road, rail, ports)	32%	33%	25%	30.5%	31.1%	1.0%	0.4%	0.5%
Energy (electricity, gas, hydro)	6%	6%	6%	5.8%	5.6%	0.2%	0.4%	0.0%
Mining / Quarrying	9%	9%	11%	6.4%	8.3%	2.6%	0.7%	1.0%
Education	1%	1%	1%	1.3%	1.0%	-0.3%	0.0%	0.0%
Health	0%	1%	6%	1.5%	1.6%	-1.5%	-1.6%	0.0%
Tourism/Leisure	0%	0%	0%	0.2%	0.0%	-0.2%	0.0%	0.0%
Housing (residential inc. land)	7%	6%	9%	7.5%	7.4%	-0.5%	-0.4%	2.0%
Commercial ⁴	17%	14%	14%	19.8%	17.6%	-3.3%	-1.1%	-3.5%
Agriculture / Forestry / Fishing	2%	1%	1%	0.9%	0.7%	1.1%	1.3%	2.0%
Other	5%	10%	6%	7.4%	6.5%	-2.4%	-1.5%	-4.0%
Total	100%	100%	100%					

⁴ Commercial includes: Manufacturing, industrial buildings, communication, financial, facilities management

Table 24: Economic Sector Rm, Real 2000 prices, Annualized

Economic sector	Jun-17	Dec-17	Jun-18	Dec-18	Jun-19	Per. Change last 6 months	Per. Change Last 12 months
Water (Full water cycle)	1.863	2 075	2 005	1 406	2 179	-29.9%	-32.3%
Transportation (land, air, road, rail, ports)	3.623	3 217	2 871	2 305	2 594	-19.7%	-28.3%
Energy (electricity, gas, hydro)	414	623	547	434	623	-20.6%	-30.3%
Mining / Quarrying	414	830	820	653	1 141	-20.3%	-21.3%
Education	104	104	91	59	104	-35.0%	-42.9%
Health	104	0	0	79	623	0	0
Tourism/Leisure	0	0	0	9	0	0	0
Housing (residential inc. land)	1.035	519	638	412	934	-35.5%	-20.7%
Commercial	2.484	2 075	1 504	962	1 453	-36.0%	-53.6%
Agriculture / Forestry / Fishing	0	0	182	39	104	-78.9%	0
Other	311	934	456	671	623	47.3%	-28.2%
Total	10.352	10 377	9 113	7 030	10 377	-22.9%	-32.3%

Table 25: Proposed CESA Labour unit cost index

Survey period	Labour Unit cost (LUC) per hour	Index (2000 = 100) Smoothed	Year on Year percentage change in Index	Annual Average Annual Increase
Dec-04	R95.75	150.40	11.3%	16.4%
Jun-05	R101.62	155.44	5.3%	
Dec-05	R 103.07	161.20	7.2%	6.3%
Jun-06	R 112.97	170.14	9.5%	
Dec-06	R113.40	178.28	10.6%	10.0%
Jun-07	R122.3	185.61	9.1%	
Dec-07	R127.21	196.49	10.2%	9.7%
Jun-08	R150.43	218.65	17.8%	
Dec-08	R162.80	246.68	25.5%	21.7%
Jun-09	R171.98 r	263.65 r	20.6% r	
Dec-09	R174.77	273.07	10.7%	15.6%
Jun-10	R174.50	275.06	4.3%	
Dec-10	R199.3	294.37	7.8%	6.1%
Jun-11	R179.8	298.5	8.5%	
Dec-11	R199.5	298.7	1.5%	5.0%
Jun-12	R196.2	311.6	4.4%	
Dec-12	R249.8	351.2	17.6%	10.9%
Jun-13	R241.3	386.7	24.1%	
Dec-13	R236.1	375.9	7.0%	15.6%
Jun-14	R255.8	387.4	0.2%	
Dec-14	R266.1	411.0	9.3%	4.8%
Jun-15	R253.5	409.2	5.6%	
Dec-15	R243.08	391.06	-4.9%	0.4%
Jun-16	R236.34	377.56	-7.7%	
Dec-16	R231.78	368.66	-5.7%	-6.7%
Jun-17	R251.81	380.84	0.9%	
Dec-17	R 274.81	432.84	12.5%	6.68%
Jun-18	R 304.36	479.39	19.8%	
Dec-18	R 311.95	491.35	17.0%	18.40%
Jun-19	R 280.5	441.83	2.3%	

Table 26: CESA Confidence index: % respondents satisfied with working conditions

Survey Period	CESA Confidence Index	% Change on previous survey	% Change on survey same time last year
Dec-04	86.3	11.77%	34.4%
Jun-05	96.8	12.2%	25.4%
Dec-05	99.3	2.5%	14.9%
Jun-06	99.7	0.5%	3.0%
Dec-06	98.4	-1.30	-0.8
Jun-07	99.4	1.0%	-0.3%
Dec-07	99.8	0.4%	1.4%
Jun-08	99.9	0.1%	0.5%
Dec-08	99.8	-0.1%	0.0%
Jun-09	96.2	-3.61%	-3.7%
Dec-09	86.0	-10.6%	-13.8%
Jun-10	87.1	1.3%	-9.4%
Dec-10	86.7	-0.5%	0.8%
Jun-11	83.2	-4.0%	-4.5%
Dec-11	87.4	5.0%	0.8%
Jun-12	81.8	-6.4%	-1.7%
Dec-12	70.0	-14.4%	-19.9%
Jun-13	84.0	20.0%	2.7%
Dec-13	98.1	16.8%	40.1%
Jun-14	87.7	-10.6%	4.4%
Dec-14	46.3	-47.2%	-52.8%
Jun-15	44.5	-3.9%	-49.3%
Dec-15	39.4	-11.5%	-14.9%
Jun-16	75.0	90.4%	68.5%
Dec-16	87.5	16.7%	122.1%
Jun-17	96.3	10.1%	28.4%
Dec-17	55.4	-43.5%	-37.8%
Jun-18	26.9	-50.6%	-72.1%
Dec-18	34.3	27.8%	-36.8%
Jun-19	20.3	-41.0%	-24.6%
Dec-19 (forecast)	22.5	10.8%	-34.6%
Jun-20 (forecast)	33.1	47.1%	63.1%

End of report

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