



BI-ANNUAL ECONOMIC AND CAPACITY SURVEY

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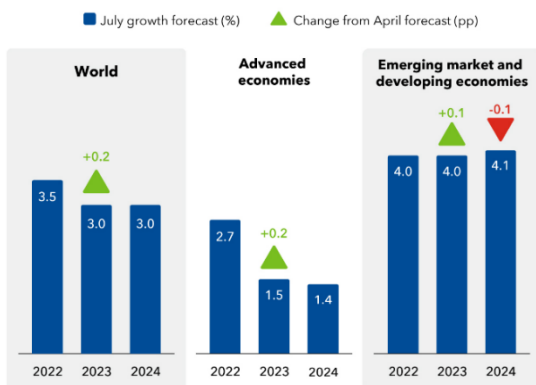
ECONOMIC SUMMARY

INTERNATIONAL ECONOMY

Global economic growth is projected to fall from an estimated 3.5 percent in 2022 to 3.0 percent in 2023 and 2024. While the forecast for 2023 is modestly higher compared to April 2023, it remains weak by historical standards. The expected recovery in China disappointed with the significant downturn in the property market. Global inflation is predicted to ease from 8.7 percent in 2022 to 6.8 percent in 2023 and 5.2 percent in 2024. The economic slowdown is largely centred around advanced economies where growth is predicted to fall to 1.5 percent in 2023 and 1.4 percent in 2024. Emerging markets and developing economies is expected to accelerate to 4.1 percent in 2023 and 2024. The delayed impact of higher lending rates will slow global activity, particularly in terms of consumer-driven markets, while putting pressure on real estate markets.

Growth projections

The global economic outlook for this year is slightly brighter, but growth remains weak.
(GDP, percent; year-on-year)



Source IMF World Economic Outlook

Figure 2

South Africa’s own growth outlook is threatened by the economic weakening of key

trading partners, including China. Lower export revenue, combined with domestic constraints related to rail and freight infrastructure will dampen growth outlook for 2023 and 2024. Although China’s growth for 2023 is lower than expected, it is nonetheless predicted to increase from 3.0 percent in 2022 to 5.2 percent in 2023, sowing to 4.5 percent in 2024. The IMF expects South Africa’s economic growth to slow from 1.9 percent in 2022 to 0.3 percent in 2023, rising to 1.7 percent in 2024.

Inflationary pressures may have subsided in recent months, but a rebound in oil prices and a weaker rand will continue to put pressure on inflation, and this could either lead to further rate hikes, or higher rates for longer. Either way, not good news for the local economy.

DOMESTIC ECONOMY

Real GDP (measured by production) increased by 0.8 percent in the 1st quarter of 2023, following a revised 1.1 percent decrease in the last quarter of 2022. Most sectors increased in Q1, except for agriculture that declined by 12.3 percent and a 1.0 percent decline in the electricity, gas and water sector.

GDP GROWTH BY SECTOR

Q-Q Seasonally adjusted annualised 2015 prices

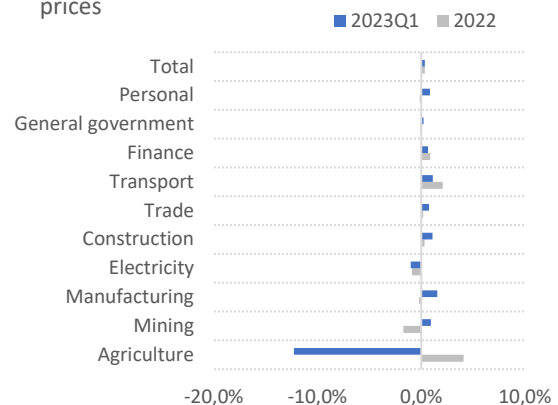


Figure 1

Value add in construction 1.1 percent in Q1, compared to an average 0.3 percent increase in 2022. This was the 3rd consecutive q-q increase for the sector.

Fixed investment increased by 1.4 percent q-q (seasonally adjusted annualised 2015 prices) in the 1st quarter of 2023, following the 1.5 percent increase in 2022 Q4. General government contributed 19 percent to total investment, up 7.0 percent q-q, the strongest q-q growth since 2015, investment by SOE's increased by 0.8 percent (11 percent contribution) while investment growth by the private sector slowed from 1.8 percent in 2022 Q4 to 0.2 percent. The contribution by the private sector was 70 percent, and an overwhelming driver for investment in the country.

The GFCF/GDP ratio improved modestly to 14.9 percent in Q1, from an average of 14.5 percent in 2022.

The need for private sector investment in critical economic infrastructure is intensifying, in areas such as electricity, water, rail and ports, beyond just renewable energy. The contribution of private sector investment in construction works (normally dominated by government and SOE's) increased from less than 10 percent in 2000 to an average of 24 percent over the last three years. While this was largely due to the higher levels of investment in renewable energy projects, more is needed to expand the private sector's role. The collapse of electricity infrastructure may just be the catalyst to increase future private sector investment as government has no choice but to create an environment that is conducive for private sector investment. The collapse of energy infrastructure is colliding with a broad-based collapse of infrastructure, creating the perfect storm for government, struggling to maintain its social responsibilities to the poor and unemployed, while maintaining and improving infrastructure. The fact that the 2024 elections are around the corner means infrastructure needs to be

restored, or real attempts being made to be restored, across the country.

A more involved private sector could unlock significant funds across all spheres of infrastructure development. Due to the current crisis, government focused mainly on restoring economic infrastructure as outlined in the 2023 Budget. In real terms, allocations increase by an average annual rate 3.1 percent over the base-line period (2023/24 – 2025/26), in economic infrastructure, against a 7.8 percent decline in investment in social infrastructure. Lack of social infrastructure investment will inevitably lead to another (perhaps more violent) crisis, to which government will have to yet again, respond in a more reactive rather than proactive manner. As investment in energy is expected to increase by 10 percent in real terms over the three-year period, the lack of investment in water and sanitation infrastructure raises a red flag.

Calls for increased infrastructure investment followed through as most metropolitan governments announced an increase in capital expenditure budgets for the 2023/2024 financial period. Unfortunately, this "recovery" may not follow through post-election as capital budgets are reduced for the 2024/25 period. Cumulative provincial expenditure on buildings and other fixed structures is expected to increase by 14 percent y-y (current prices) in the 2023/24 financial year, with a 7.4 percent and 1.4 percent decline for the following two years. This means by 2025/26 we will be no better off than where we are now.

Capital Expenditure as % of total expenditure: Cumulative provincial expenditure

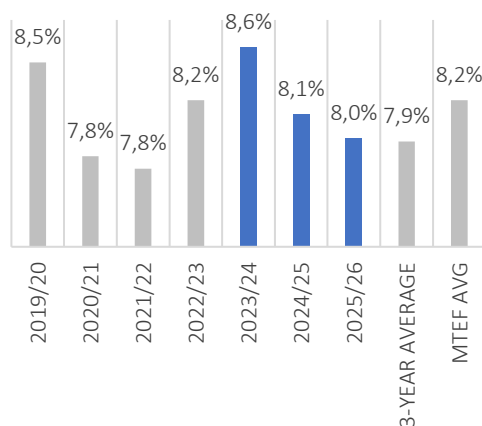


Figure 3

The **unemployment rate** slowed to 32.6 percent in the 2nd quarter of 2023 from an average of 33.5 percent in 2022. In a refreshing shift, the construction sector was the star performing sector in the 2nd quarter, as the labour force expanded by 8.6 percent q-q (or 104 000) to over 1.3 million. Formal and informal job market opportunities increased, supported by provinces like the Western Cape, Mpumalanga, and Limpopo. Western Cape is now the province with the second largest construction labour force, surpassing Kwazulu Natal. Gauteng remains in the lead but was one of only two provinces that experienced a contraction in the construction labour force market. Employment in the mining sector increased by 8.9 percent y-y in the 2nd quarter of 2023, supported by an expansion in Limpopo.

The commodity price index has already slumped by 19 percent y-y in the first two months of 2023, reducing the positive impact of higher sales value on the mining industry. Mining production (including gold) fell by 7.2 percent on average during 2022. The outlook for capex expenditure has however improved.

Producer inflation decelerated to below headline inflation, falling to 4.8 percent in June 2023. Consumer inflation slowed to 5.4

percent by June 2023, below the South African Reserve Bank’s upper 6 percent target. Inflation is expected to average 6 percent in 2023 slowing to 5.4 percent in 2024. Upside risks remains, for example secondary inflationary pressures due to rand weakness and a rebound in oil prices.

Consumer and Producer inflationary pressures ease

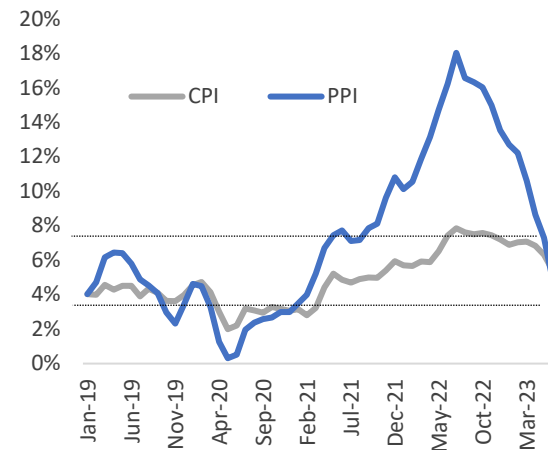


Figure 4

Confidence in the civil sector, according to the FNB/BER confidence surveys, recovered notably in the 1st half of 2023, from an average of 18.5 in 2022 to 41.5. This supports anecdotal evidence of a recovery in the civil sector, including the expansion in the labour force, an increase in tender activity, and re-prioritised budgetary allocations in favour of infrastructure expenditure. However, as awards of civil projects have started to come through more strongly, confidence levels are reacting more positively.

Building confidence, by contrast, has barely surpassed 30 percent for the past two years, averaging a level of 35.2 in 2022, slowing to an average of 30.5 in the first six months, as conditions in the building sector remain depressed at a national level. Pressures are mounting on the building industry, as higher lending rates impact property demand, the consumer DIY market, while government’s focus is weighed in favour of economic

infrastructure expenditure. Although expenditure towards education, health and protective service did however increase over the base line period, it pales by comparison to allocations towards energy, water, and transport.

The monetary policy committee (MPC) of the Reserve Bank left the repo rate unchanged at 8.25 percent at the July 2023 meeting. The prime lending rate averaged 11.3 percent in the first six months of 2023, compared to 8.8 percent in 2022. Despite diminished economic leverage to impose further rate hikes, the prime rate increased to 11.75 percent in May 2023, the highest level since 2009, with warnings of possible further rate hikes, pending inflationary developments. There nonetheless is a broad consensus that the current rate hike cycle may be coming to an end, with rates expected to be lowered in 2024/25. It is highly unlikely that the SARB will lower rates to below 8 percent or even 9 percent as it did 2020/21, given global market volatilities and the impact that lowering the real gap rate will have on the rand.

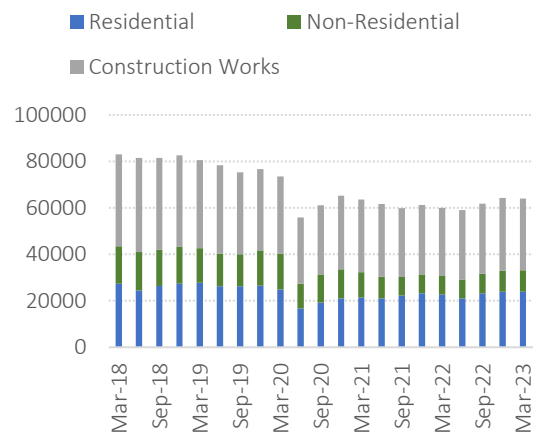
INVESTMENT IN CONSTRUCTION

Investment in the construction industry (according to the Reserve Bank’s gross fixed capital formation estimates) contracted to revised R245bn in 2022 (2015 prices), from R246bn in 2021, a decline of 0.5 percent y-y in real terms. Investment in construction increased by 6.5 percent y-y in 2023Q1 from an increase of 4.9 percent y-y in 2022Q4.

Investment in construction has been on a decline since 2014, as government disinvested in infrastructure and corruption and mismanagement battered SOE’s, but there seems to be some improvement. Investment by the private sector in buildings was largely driven by the residential market (Western Cape) and increased investment in the renewable energy sector.

Residential investment increased by (revised) 3.3 percent in 2022 to R91bn, following an increase in approvals for residential developments in 2021. Approvals for further residential construction ended flat in 2022, suggesting a slowdown in the pipeline for 2024/25. Despite this, residential investment increased by 5.6 percent in Q1. Non-residential investment fell by (revised) 6.9 percent y-y in 2022 to R34bn, as weak demand in offices and retail slumped investment. Coming off a low base, there was however a surprise uptick in Q1 as non-residential investment increased by 11.8 percent y-y. Construction works fell by 1.3 percent in 2022, likely pulled lower by a lack of investment by SOE’s but recovered with an increase of 5.7 percent in Q1. Overall, the first quarter was not a bad start for the construction sector, with higher levels of investment expected from construction works, possibly pulled lower by a slowdown in investment in residential buildings as current projects are completed with a diminished pipeline unable to fill the void.

GFCF Construction
Rm 2015 Prices



The potential from Green Hydrogen and Figure 5: GFCF Construction Rm 2015 prices (Source SARB)

renewable energy remains significant, with progress being made at a faster than expected pace. There are significant direct and indirect benefits for the local construction industry in the development of the Green Hydrogen

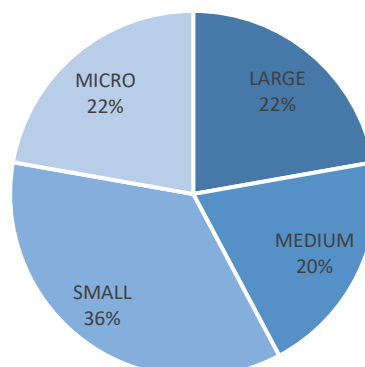
economy that could transform the construction industry through the supply of reliable power sources and reducing the carbon footprint of construction. The construction industry will directly benefit through the construction of various production and distribution facilities., including

retrofitting of existing buildings to accommodate hydrogen based technologies. Around nine projects have already been gazetted as part of the Hydrogen Economy, but implementation will more than likely be slow give the size and scope of these projects.

SURVEY RESULTS

- 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 and benchmarked 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 workplace 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.
- A total of 46 questionnaires were returned via both an on-line and hard copy system. The sample represents a cumulative fee income of R2.5bn, and 4 700 employees for the period January – June 2023.

RESPONDENTS PROFILE
JAN - JUN 2023



FEE EARNINGS

Fee earnings continue to improve, along with an improved order book, but outlook on profitability softens

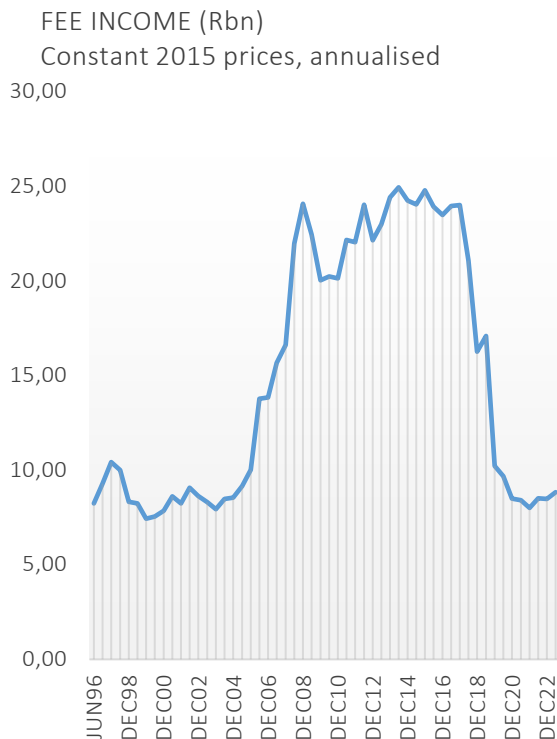


Figure 6

Fee earnings improved by an average of 4.9 percent y-y in real terms in 2022, with a 5.1 percent y-y increase reported for the 1st half of 2023. Based on survey results it seems the lower turning point for the consulting engineering profession has been reached, albeit still at historical low levels.

Business conditions were as expected in the first six months of 2023, with growth in earnings in line with expectations in the December 2022 survey. Medium and smaller size firms did better than expected, with larger firms on par with earnings on average 5 percent. The outlook for the last six months of 2023 is surprisingly less positive, with earnings expected to increase by between 2 percent and 5 percent. Medium size firms expect a contraction in earnings, following robust growth in the last two surveys, with a similar expectation shown by smaller firms.

EXPECTATIONS MATRIX: CHANGE IN EARNINGS

Last six months of 2023 vs June 2023 survey

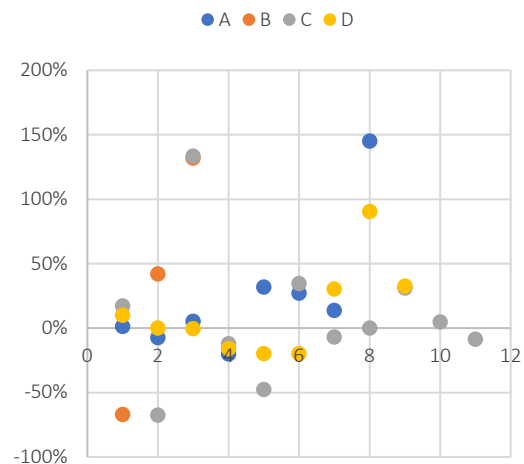


Figure 7

Based on the order book (value of confirmed appointments not yet invoiced) the outlook for the next 6 months is, contrary to expectations, more positive, as the order book to income ratio increased to 2.4, up from 1.8 (Dec-22) the best level since 2014. The ratio increased to 2.7 for larger firms (up from 2.1), suggesting the value of the confirmed appointments is close to three times the reported earnings. Overall, the value of confirmed appointments increased by 34 percent compared to the previous survey, following the 17 percent increase in the December 2022 survey. Overall, profitability improved to an average of 14.9 percent in line with the same period in 2022, and up from 12.7 percent in the last six months of 2022. An increasing number of firms expect margins to stabilise (53 percent) with only 17 percent expecting a further improvement. Larger firms expect stable margins for the next 6 months, while on average medium to micro firms are concerned that margins will recede somewhat.

Respondents largely have a less favourable outlook regarding profitability for the next 6 months, with over 40 percent expecting margins to recede, with a similar percentage

saying margins are at an unsatisfactory level, similar to the December 2022 survey. Although margins are currently close to their best level since 2015, they remain below the peak of 2007/8.

The ratio of outstanding payment for work already done and invoiced stabilised at 62 percent of earnings, on par with the Dec-22 survey, and down from 75 percent in the June 2022 survey. While it is not possible to say whether these payments are overdue or late, it does suggest undue financial pressure to receive timeously payments.

SALARY AND WAGE BILL AND EMPLOYMENT

Improved outlook for employment

The contribution of the salary and wage bill averaged 60 percent, from an average of between 60 percent and 65 percent over the last two years. Larger firms increased employment by an average of 9.7 percent, resulting in a 7.1 percent increase in the cumulative salary and wage bill. Other firms (medium to micro) increased employment by 3 percent with a similar increase in the salary and wage bill.

CESA EMPLOYMENT ESTIMATES

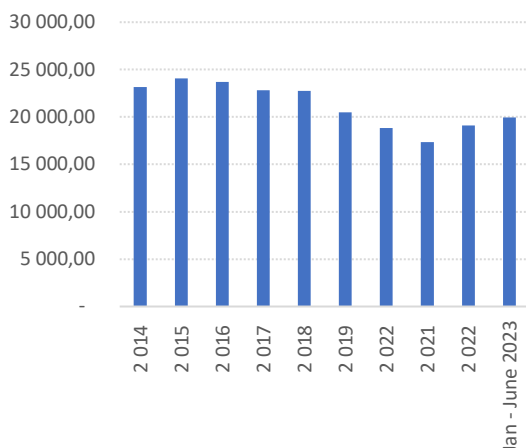


Figure 9

Overall employment increased by 9 percent in the first six months of 2023, with increases reported across all firm categories, except medium size that cut employment by 2.2 percent, after ending flat in the previous survey. Overall employment increased by 10 percent in 2022 following six years of consecutive declines.

NUMBER OF FEMALE ENGINEERS

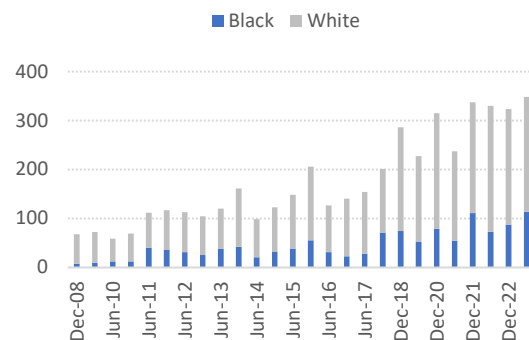


Figure 8

The weighted response in terms of employment demand for engineers increased further, now to the highest level since 2006. On average 93 percent of respondents are looking to increase employment of engineers, with 70 percent looking for technologists. Being a weighted average, the responses are influenced by the demand from larger firms. In line with demand, a higher percentage are finding difficulties in recruitment, averaging 82 percent in the first six months of 2023 compared to an average of 69 percent in 2022, and 61 percent in 2021. As has been the case since 2014 (when the survey was adapted to distinguish between male and female engineers), it is more difficult to find suitable female engineers compared to their male counterparts and even more so from a previously disadvantaged background. Female engineers represented 13.5 percent of total engineers in 2022, on par with the average in 2021, slowing to 12.2 percent in the June 2023 survey.

Over the course of the survey the number of female engineers increased from around 50 in 2008 to over 300 in 2022, with the number of black female engineers, increasing from fewer than 10 to over 100. These numbers only reflect CESA estimates and does not include engineers employed by the public sector for example. Finding suitable candidates remains a challenge, with close to 90 percent of respondents experiencing recruitment problems finding a female engineer and 94 percent from a previously disadvantaged background.

OUTSOURCING, DISCOUNTING AND COMPETITION

On average firms **outsourced** 16 percent to external enterprises and a similar rate for transformation purposes, with 20 percent of earnings outsourced to black enterprises, relatively on par with previous surveys. Compared to comparable periods however (1st half of the year), this is higher against an average of 16 percent over the last 5 years. The tendency to outsource on average seems to be lower in the first six months of a year, putting this rate at a higher-than-average rate.

Larger firms outsourced a higher percentage of earnings compare to medium size firms, with the outsourcing rate to black owned enterprises slowing slightly to 25 in the June 2023 survey against an average of 29 percent in 2022. On average 22 percent was outsourced for transformation purposes including black owned enterprises.

Given the highly competitive environment, many firms continue to report very keen to fierce competition, although in this survey, it dropped further to 66.6 percent from an average of 85 percent in 2022. Less than 1 percent reported low competition levels.

A lower percentage of respondents from larger firms reported fierce competition, down from

59 percent to 40 percent, while fewer than a third of the participants in all the other firm size categories reported similar levels of competition. Higher levels of competition are supported by higher tendencies to discount hence the 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 has thereby slowed to an average of 22.8 percent from 24.3 percent (Dec-22) but on par with 22 percent average in 2022.

CAPACITY UTILISATION

Capacity utilisation of technical staff has steadily decreased since 2008, falling to near record lows of 74 percent in 2020 (this is like levels experienced in the 1998/99 financial crisis). Although levels have since then recovered to an industry average of 80 percent to 82 percent over the previous two surveys, utilisation levels dropped to below 80 percent in the current survey at 79 percent. Majority expect utilisation rates to improve in the next 6 months (70 percent), lower than the previous survey, with close to a third expecting stabilisation, up from 16 percent in the previous survey. There seems to be a shift from the expected expansion in the December 2022 survey to more of a stable outlook, although majority are still expecting higher levels of capacity utilisation.

BREAK-EVEN RATIO

The cumulative break-even ratio (income to break even revenue) for larger firms improved to an average of 0.53, from 0.61 in December 2022 and an average of 0.59 in 2022. Despite improved conditions in 2022 and into the first six months of 2023, conditions remain challenging for larger firms. The average break-even ratio for medium, smaller, and micro firms moderated back to levels more in

line with June 2021, albeit moderately higher. Conditions were more challenging at the higher end of the market (due to economies of scale) where margins are also potentially lower. Tender activity in terms of higher grade CIDB projects, mainly in the civil sector, has shown an improvement, should have supported the higher earning firms, although the uptake from the private sector has been slow, with majority coming from the public sector and SOE's.

In terms of the costs associated with cancellations, SOE's contributed over 90 percent, given the size and scope of projects generally initiated by SOE's. These projects primary affected the larger firms. For medium and smaller size firms, the private sector contributed between 45 percent and 63 percent to cancellation costs, while the micro firms reported local government at 46 percent.

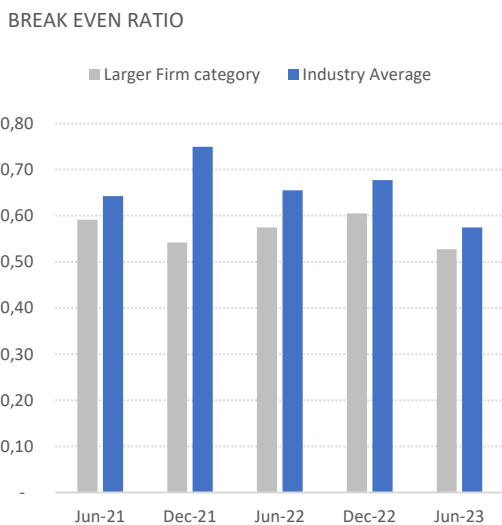


Figure 10

PROJECT POSTPONEMENTS AND CANCELLATIONS

Project postponements and cancellations have been rife within the construction industry for quite some time. The reasons for the cancellations vary, but can range from an uncertain economic environment, budget constraints, community interference, as well as a lack of skills to plan and execute tenders.

On average 31 percent of respondents reported incidences of tender cancellations during the first six months of 2023, compared to an average of 47 percent in 2022. All firm size categories reported a decrease, with the highest percentage of respondents from larger and micro firms, at an average of 40 percent.

ORIGIN OF PROJECT CANCELLATIONS
CURRENT SURVEY

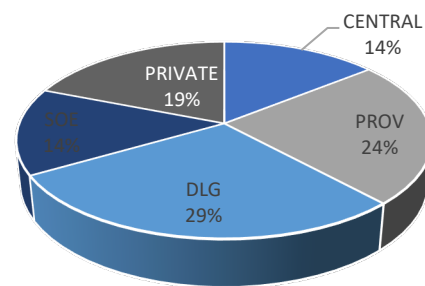


Figure 11

Overall cancellation costs represented 2.1 percent of cumulative fee earnings, up from 1 percent in the December 2022 survey and an average of 0.7 percent in 2022. Larger firms (due to economies of scale) averaged 2.3 percent compared to 0.1 percent (Dec-22), with medium firms down to 0.5 percent, from 7.5 percent in the previous survey.

A study by Industry Insight on project cancellations, found that fewer cancellations were reported in the first half of 2023 compared to the last six months of 2022, down 8 percent to around 249 projects. Cancellations are more visible in the building sector, with a 27 percent increase against a 51 percent decline in projects in the civil industry.

Building project cancellations intensified in the Western Cape since the second half of 2022, with most of the other province showing an overall decline. Projects were mainly cancelled in the education, health, and social housing

sector, compared to water, roads, and commercial sector projects in the last six months of 2022.

ECONOMIC SECTOR

The contribution of the water sector dropped to 19 percent, from an average of 26 percent in 2022, on par with the 5-year average. In this survey, the commercial sector gained 9 percentage points to 16 percent, and energy 2 percentage points to 6 percent. While levels are on par in the energy sector, exposure to the commercial sector is above the 5-year average of 14 percent and 11 percent on average in 2022. Transportation remains an important sector the industry, with a contribution of 26 percent on par with the previous survey and in line with the 5-year average. The contribution of the mining sector averaged 11 percent, sustaining the levels reported in the previous survey.

ECONOMIC SECTOR

Distribution of fee earnings

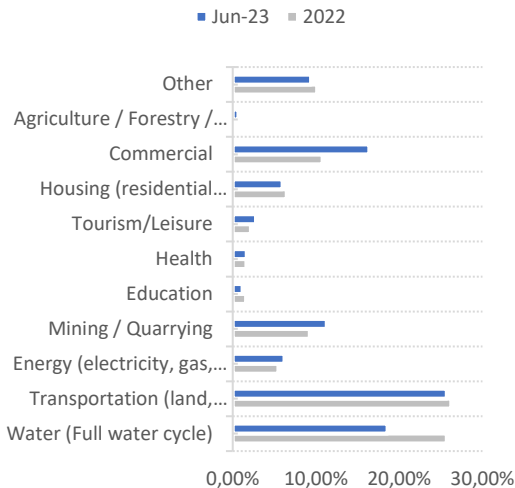


Figure 12

OUTLOOK

Improved expectations were met in the first six months of 2023, as the consulting engineering index (satisfaction rate) improved from 52.5 percent in the last six months of 2022 to 96.8

percent “expected” for the first six months. Current conditions did not disappoint as the satisfaction rate for the first half of 2023 reached 93.5 percent, with similar outlook for the next six and 12 months. The outlook for business conditions in 2023, into 2024 is therefore considerably more positive. Expectations were however lowered in terms of how busy firms expect to be, from “busy” to satisfactory, that may hint to underlying challenges that could impact confidence in the sector. While most larger firms experienced satisfactory conditions in the first six months, close to 70 percent expect to be busier in the last six months, before returning to a more “satisfactory” outlook for the first six months of 2024.

Confidence levels amongst medium size firms exceeded a satisfaction rate of 90 percent for the current survey and expectations for the next 6 months, before slowing to 80 percent as fewer firms expect to maintain current levels. Although smaller firms did not experience the same level of satisfaction in the current survey, compared to larger and medium size firms, the confidence index increased from 63 percent (current survey) to above 90 percent for the next 6 and 12 months. Micro firms were generally satisfied but with a satisfaction rate of 62 percent, rising to 84 percent in the last six

EARNINGS VS CONFIDENCE

Annual Change in Real Earnings of Consulting Engineering vs Confidence

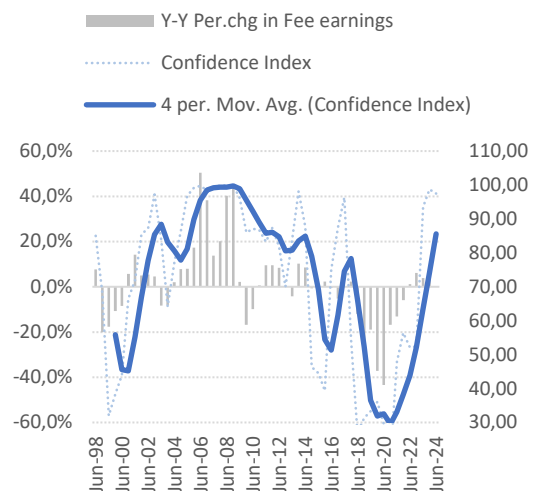


Figure 13

months of 2023, before cooling to 60 percent into 2024.

The focus in terms of construction investment remains firmly within the economic infrastructure environment, with focus on renewable energy, roads, and water infrastructure. Enhancing private sector participation remains a critical catalyst for success, and inroads are being made in this regard. The private sector has already surpassed anticipated investment levels in the renewable energy sector, although this has had little direct impact on the consulting engineering industry, the spinoff to the domestic economy remains positive with lower and fewer stages of loadshedding. Multibillion-rand projects remain in the pipeline, with announcements of high economic impact project announcements exceeding R250bn between January and July 2023. The construction industry, and the need for sustainable investment in infrastructure remains a key topic, with continuous and regular announcements by stakeholders from both the private and public sector of anticipated investment in infrastructure ranging from energy projects, water infrastructure to port developments. Progress however is slow, with the BRICS's established National Development Bank stating that it is struggling to find bankable projects, even though R56bn is available to invest as part of its pledge for South Africa's Just Energy Transition Initiative. Meanwhile three bidders were identified for the R50bn Boegoebaai Port in the Northern Cape, shortly after the new R10bn Namakwaland SEZ was gazetted.

Transnet is actively engaging with the private sector in its own port upgrade and development projects at Richards Bay, with Cape Town hoping to be next.

Following the conclusion of the 15th BRICS Summit, South Africa is well positioned to attract foreign direct investment (FDI) as a gateway into Africa as part of the BRICS alliance. Through SA's industrial development zones (IDZ's) various incentives are offered including tax breaks and infrastructure support to attract international businesses. However, all these initiatives take time, and without the immediate support by government and SOE's through higher infrastructure investment, allocated through re-prioritised budgetary allocations, to restore and maintain critical infrastructure and investment in new infrastructure, it may very well be more or less of the same over the medium term. The improved outlook by consulting engineering firms in South Africa casts a more positive outlook, as it suggests increased activity in terms of infrastructure design and planning. The challenge is to follow through on these projects with a sustainable pipeline for consulting engineers to not only maintain and increase job creation opportunities in the sector, but also to support, while improving and expanding the country's critical economic infrastructure to enhance and support real, sustained economic growth for the benefit of all citizens.

Consulting Engineers South Africa

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