THE SOCIOECONOMIC IMPACT OF SUBSTITUTING LOCAL CEMENT PRODUCTION WITH CEMENT IMPORTS

September 2023
## ABOUT CAMM

The Gordon Institute of Business Science’s Centre for African Management and Markets (CAMM) aims to better understand the African continent’s vast extremes and the subtleties that might just explain them. We conduct research into the markets and management philosophies of African countries and companies, while fostering dialogue and sharing knowledge between stakeholders. We approach the research questions through the lens of what we call “Build, Connect, Do”.

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EXECUTIVE SUMMARY

South Africa’s cement industry, a foundation stone of the nation’s infrastructure and economy, is at a crossroads. Traditionally respected – and even revered – for its robustness and its pivotal role in infrastructural development, the industry is now grappling with a myriad of multifaceted challenges. A combination of macroeconomic shifts and the influx of competitively priced imported cement poses questions about the future trajectory of this vital sector.

This report, produced by the Centre for African Management and Markets (CAMM) at the Gordon Institute of Business Science (GIBS), scrutinises the socioeconomic repercussions of a potential shift in the industry’s landscape from domestic cement production to a dependency on imports. Such a transition, while appearing economically attractive in the short run due to reduced costs, carries profound implications for the nation’s economic health, the employment landscape, industrial dynamism, and broad-based social well-being.

Domestic cement production has long contributed meaningfully to national prosperity. This point is underscored by the high multiplier effects and linkages created by the industry. Relying on imports could erode this economic value, affecting direct and ancillary industries.

The cement industry is a significant employer. A shift towards imports might lead to job losses, impacting household incomes and potentially exacerbating unemployment in an already stressed economic environment. This report also speaks to households’ financial fragility and socioeconomic immobility. Each is likely to be further strained in the instance that domestic production is replaced by imports.

Local suppliers, logistics providers, and related businesses that survive on the domestic cement industry’s ecosystem might face reduced revenues and potential shutdowns. The industry is a hub for skills development, from manual roles to specialised engineering positions. A reduced focus on domestic production might stifle this growth, leading to a wider skills gap in the future in an environment where the country already suffers significant skills shortages.

Investments in technology, research, and capacity expansion could diminish, making the country more reliant on external entities and less self-reliant for technological advancements. This would then have second-order effects on the current account deficit.

The domestic industry contributes significantly to the government’s coffers through various tax streams. This revenue might be at risk if imports overshadow domestic production.

To illustrate the impacts, this report employs Pretoria Portland Cement (PPC) as a case study. PPC’s journey, marked by over 130 years of active participation in the commercial life of South Africa (and other African nations), mirrors the broader industry trends. By studying PPC’s trajectory, stakeholders can glean insights into the potential future of the broader cement sector.

To ensure a holistic understanding, the report harnesses a two-pronged methodological approach, including quantitative modelling and qualitative research. Specifically, through a Social Accounting Matrix-based (SAM) analysis, the report quantitatively assesses the impact of demand shifts on the broader economy. Then, qualitative research offers nuanced insights into the subjective dimensions of the industry’s challenges and potential future.
The evidence gathered confirms that PPC’s operations contribute significantly to the South African economy, amounting to R8.8 billion of economic value added in 2022. PPC’s economy-wide contribution supports an estimated 15,897 full-time-equivalent formal and informal jobs, generating R3.24 billion in labour income.

The qualitative research highlights PPC’s active involvement in community initiatives, showcasing its commitment to community welfare.

The scenario modelling suggests that the displacement of local cement production with cement imports will have destructive impacts on PPC’s regional employment and put at risk some provincial operations. Under the modelled scenario, the Western Cape and Eastern Cape provinces experience significant declines in gross domestic product and employment, emphasising the strong connection between PPC’s operations and the economic stability of these regions. This projected decrease in production will result in an estimated decrease of R1.3 billion per annum in PPC’s contribution to South Africa’s economy.

The impact of the modelled scenario of displaced local production extends beyond PPC South Africa, affecting various sectors connected to cement production. These sectors experience substantial value losses in a context where many businesses and individuals already exist in a state of great fragility. The findings emphasise the interconnectedness of the economy. Approximately 2,241 jobs are at risk, representing 14% of PPC South Africa’s contribution to national employment in formal and informal sectors.

As South Africa stands on the brink of a potential industrial transformation, understanding the implications of such a shift is paramount. This report aims to arm stakeholders with comprehensive insights, and facilitate informed, strategic decision-making in the face of evolving challenges.
South Africa’s cement industry has an annual production capacity of around 22 million tonnes. However, because of low demand and the displacement of domestic production by imports (which can be priced up to 40% lower than locally produced cement), the industry is producing only 13 million tonnes annually. This displacement of domestic production by cheap imports poses a significant threat to the South African cement industry, as importers do not always have to contend with the same production environment challenges as domestic producers. These include carbon taxes, organised labour, industry transformation goals, environmental regulations and facilitating a just energy transition.

Pretoria Portland Cement (hereafter “PPC”) is a mainstay of South African commerce. The JSE-listed multinational has operated for over 130 years and has a reputation for producing high-quality cement and related products. However, the South African cement industry now faces grave challenges. Macroeconomic headwinds have lowered demand and the influx of cheap imported cement has stifled domestic production. As a result, the contributions that local cement companies make to the economy have been adversely affected.

This report provides a snapshot of PPC’s impact on the social and economic prosperity of South Africans and shares an evidence-based assessment of the potential economic impacts of importing cement products into the country compared to producing cement in South Africa.

The study contemplates a multitude of impacts via a scenario analysis. It quantifies the effects on key indicators of prosperity, such as economic value added, employment and household earnings. This quantification extends to the benefits to government. A qualitative segment captures social impacts that the numbers do not always reflect.

The report is divided into two components: Quantitative modelling and qualitative research:

i. In the quantitative modelling component, a SAM-based (Social Accounting Matrix) analysis was applied. This is used to forecast the economy-wide impact of a potential negative demand shock on local cement production.

ii. The qualitative component includes original research conducted via fieldwork. This consists of a variety of interviews with relevant stakeholders to help establish the potential impact of imports displacing local production, with a focus on potential job losses. Interviews were conducted in person and, where necessary, via online video call.

The impact of imports on the industry, the economy, government, and society are complex and multifaceted. This study aimed to consolidate this diversity of dimensions into the impact analysis.
MEASURING PPC’S CONTRIBUTION: METHODOLOGY

This study’s quantitative element explores both, PPC’s direct contribution to the South African economy, and the indirect and induced contributions. The latter two comprise the multiplier effects – the results of PPC’s activities measured further up and down the value chain. For example, we attempted to measure the benefits accruing to local shops by way of spending by PPC employees and the knock-on benefits resulting from the suppliers that PPC’s activities support.

The study was commissioned by PPC and conducted by CAMM. PPC provided the data and other information on the direct economic impact of their operations, as well as estimates of total cement sales volumes and value. This was supplemented by independent analyses undertaken by CAMM. In addition, CAMM modified and utilised a Social Accounting Matrix (SAM) for the South African economy to model PPC’s multiplier effects.

Unless stated otherwise, all figures and charts refer to annual data for 2022 and values represent amounts in local currency at current prices.
2.1 QUANTITATIVE ANALYSIS

The macroeconomic impact assessment conducted for this study is based on a detailed input-output analysis and comprehensive Social Accounting Matrix-based (SAM) economic model for South Africa.

In short, we use the base year of 2022 and create a snapshot of the economy, demonstrating the quantity of economic activity and what activities make up that total. Most importantly, this tool enables us to go beyond the immediate contributions. The benefit of each rand of income to a PPC employee or supplier does not end with them. The same applies for the benefit of each construction project made possible by the cement supplied by PPC. Each employee pays forward some portion of his or her salary into local businesses or injects it into a family member’s education. And construction projects turn into schools and businesses. A full picture of any institution’s contribution must include these less visible but equally important impacts.

The SAM model used identifies 94 activities and industries in the South African economy. The labour component categorises labour by sector and skills level. Formal jobs include highly skilled, skilled, semi-skilled and unskilled. Informal jobs are a group on their own. We also account for ethnicity or population group: Black, Coloured, Indian/Asian, and White. Capital stock and expenditure are available for three asset classes: Building and construction work, machinery and transport equipment.

Much like we use gross domestic product (GDP) as a measure of total value produced at a macroeconomic level, the SAM model uses rand values to measure the positive impact produced by the individual institution or industry being analysed.

To ensure we measure total impact, we record PPC’s contribution at three levels: (i) direct, (ii) indirect, and (iii) induced impact, as illustrated in Figure 1.

---

**Figure 1: Total economic impact of PPC**

- **Direct impact**
- **Indirect impact**
- **Induced impact**

**Expenditure by suppliers of goods and services to PPC**

**Household spending from earnings by employees from PPC and the value chain**

**PPC Capex and Opex**
2 MEASURING PPC’S CONTRIBUTION: METHODOLOGY

The SAM analysis begins with an injection of demand into the economy (initial impact) and estimates the total (economy-wide) impact in the following sequence:

i. The direct impact is the most overt. We begin with operational and capital expenditures by the entity or industry in question. This figure covers the likes of employment numbers, capital expenditure and tax contributions.

ii. Indirect impact measures the contribution made to the economy by suppliers of the entity in question, as a consequence of their relationship with our chosen entity.

iii. Induced effects consist of households’ spending of the extra income they derive from the salaries and wages earned in the first two categories.

Total economic impact is calculated as the sum of the three impacts discussed above.

Figure 2: Simplified schematic: Capex and Opex flows

The specific economic metrics captured by the analysis include those illustrated in the next figure.

Figure 3: Economic metrics captured by the multiplier analysis
To add richness to the quantitative data, this report includes insights garnered from interviews with a variety of people whose lives are impacted by PPC’s operations. These include local business owners, nearby residents and suppliers to PPC.

Interviews were semi-structured, meaning that predetermined basics were addressed, but participants had ample freedom to delve into areas not raised by the researchers.

**Research team.** The qualitative segment was conducted by the two authors, Adrian Saville and Francois Fouche, assisted by postgraduate students in Pretoria and Gqeberha.

**Ethical considerations.** The research team followed the ethical considerations expected of this type of qualitative research. All interviews were conducted with the interviewees’ informed consent. All interviewees were assured that the data would be safely stored. The principle of anonymity was also diligently applied.

Table 1 summarises the interviews conducted in the three locations.

<table>
<thead>
<tr>
<th>Hercules, Pretoria, Gauteng</th>
<th>Gqeberha, Eastern Cape</th>
<th>Piketberg, Western Cape</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 2023</td>
<td>4-5 April 2023</td>
<td>20 April 2023</td>
</tr>
<tr>
<td>2 pawn shops</td>
<td>Owner of a guesthouse in New Brighton</td>
<td>12 Interviews in Piketberg from the same type of businesses as in Gqeberha and Pretoria</td>
</tr>
<tr>
<td>Pharmacist</td>
<td>1 Pawn shop</td>
<td>As the town is small – more detail is not provided here to keep the participants’ information anonymous</td>
</tr>
<tr>
<td>Sister at the clinic at the pharmacy</td>
<td>Pharmacy</td>
<td></td>
</tr>
<tr>
<td>2 Butcheries</td>
<td>Tshisa nyama shop</td>
<td></td>
</tr>
<tr>
<td>2 Car guards at local businesses</td>
<td>Petrol station</td>
<td></td>
</tr>
<tr>
<td>5 Day labourers congregating at street corners</td>
<td>Furniture retailer</td>
<td></td>
</tr>
<tr>
<td>Hardware shop</td>
<td>Clothing store</td>
<td></td>
</tr>
<tr>
<td>Motor parts firm</td>
<td>Spaza shop</td>
<td></td>
</tr>
<tr>
<td>2nd-hand clothing shop</td>
<td>Security guard</td>
<td></td>
</tr>
<tr>
<td>Groceries retailer manager</td>
<td>2 Car guards at local businesses</td>
<td></td>
</tr>
<tr>
<td>Furniture stores</td>
<td>Private resident in Zwide</td>
<td></td>
</tr>
<tr>
<td>Petrol station and quick shop</td>
<td>Meat market - wholesaler</td>
<td></td>
</tr>
<tr>
<td>2 Informal day labourers</td>
<td>Informal street trader</td>
<td></td>
</tr>
<tr>
<td>1 Pensioner who has been living in the area for 40 years</td>
<td>Waiter at restaurant</td>
<td></td>
</tr>
<tr>
<td>Social worker</td>
<td>Petrol station store attendant</td>
<td></td>
</tr>
<tr>
<td>Manager of a sub-economic housing project.</td>
<td>The manager at a panel beater in the industrial area</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bookkeeper.</td>
<td></td>
</tr>
</tbody>
</table>

Table 1: Interview participants – businesses and residents
3 MEASURING IMPACT: CEMENT PRODUCTION VERSUS IMPORTS

The local cement industry has the capacity to produce around 22 million tonnes of cement a year. However, the industry is producing only 13 million tonnes because of low demand and displacement of domestic production by imports. These can cost up to 40% less than locally produced cement. In this regard, cheap cement imports threaten the domestic industry.

Importers do not always have to deal with the same challenges as domestic producers, including contributions to carbon taxes, engaging with local labour and transformation goals, conforming to environmental standards, and facilitating a just transition. These elements are vital to South Africa’s progress, transformation, and the well-being of the country’s population.

Recognising that the impact of imports on local prosperity is multifaceted and complex, this study applies a robust methodology to reliably measure the results of the phenomenon. First, we demonstrate that the displacement – or replacement – of domestic production will have a material and negative impact on the domestic economy, which is already under strain from sluggish economic growth, elevated levels of unemployment, and low levels of investment spending.

In turn, we quantify the more widespread impact. This takes into account the various spillovers into other companies and industries, through supply chains, communities, municipalities, the national fiscus and society at large.

To consider the impact of imported products displacing local production requires the economic impact of a shock being modelled and estimated by comparing the economy before and after the shock.

The analysis used data from independent sources and from PPC’s internal figures.

3.1 SCENARIO ANALYSIS: THE SUBSTITUTION EFFECT

In the scenario modelled, PPC South Africa implements a significant hypothetical change in its cement production strategy in the Western Cape (WC) and Eastern Cape (EC) regions. We apply a 50% reduction in domestic cement production in these two provinces.

We further hypothesise that, to compensate for the reduced local production, PPC South Africa decides to import cement into the same WC and EC regions. These imports will serve as a substitute for the decreased domestic production, thus maintaining the supply of cement in the market.

As a consequence of this strategic shift, PPC’s Riebeeck West and New Brighton plants, located in the WC and EC, respectively, will cease their cement production entirely. The reduction in local production renders these plants no longer viable. PPC’s De Hoek plant, located near Piketberg in the WC, continues operating at 80% capacity.
Scenario description:
- A 50% reduction in cement production in PPC’s WC and EC regions.
- Importing cement via the same two provinces will offset this reduction in domestic production.
- This will necessitate a complete termination of cement production at PPC’s Riebeeck West and Brighton plants.
- PPC’s De Hoek plant will continue operating at 80% capacity.
3 MEASURING IMPACT: CEMENT PRODUCTION VERSUS IMPORTS

3.2 RESULTS

In our analysis, the scenario described leads to a significant reduction in PPC South Africa’s contribution to national output in 2022. Figure 5 shows that, as things stand, PPC South Africa’s nationwide contribution to output in 2022 was R19.3 billion. When we insert the modelled scenario, that figure falls to R16.7 billion. The upshot is a loss of productivity amounting to R2.6 billion.

![Figure 5: Scenario impact on output (R billion)](image)

Currently, PPC South Africa contributes R8.8 billion to the country’s GDP in 2022 (see Figure 6). However, if the import scenario is implemented and cement production is reduced, it will negatively impact PPC South Africa’s value added. The company’s modelled contribution to GDP decreases by R1.3 billion per annum. The projected contribution falls to R7.5 billion.

![Figure 6: Scenario impact on GDP (R billion)](image)
A holistic view needs to incorporate knock-on losses. We can achieve this with a sector-level analysis of gross value added (GVA) – the value that producers have added to the goods and services they have bought. In this case, how much value was released into the economy when the cement maker applied its skills and technology to land and raw materials? This provides a fuller picture of the modelled loss by accounting for the losses across industries, which accumulate as the initial loss of R1.3 billion feeds through to suppliers, local businesses, municipalities and more.

Starting with the total operations of PPC South Africa, the baseline value stands at R2.5 billion. Under the import scenario, there is a reduction of R428 million, resulting in a post-shock total of R2.1 billion.

We break this impact down into different sectors, using the South African Revenue Service’s categories, the Standard Industrial Classification (SIC) codes. For the financial and business services sector (SIC 8), we observe a baseline value of R1.6 billion. The scenario impact amounts to negative R245 million, meaning an impact post-scenario of R1.4 billion.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Baseline Value (R million)</th>
<th>Scenario Impact (R million)</th>
<th>Post Scenario (R million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPC-SA: Total PPC-SA operations</td>
<td>2,141</td>
<td>248</td>
<td>2,569</td>
</tr>
<tr>
<td>Financial and business services [SIC 8]</td>
<td>1,420</td>
<td>245</td>
<td>1,665</td>
</tr>
<tr>
<td>Manufacturing [SIC 3]</td>
<td>1,049</td>
<td>166</td>
<td>1,215</td>
</tr>
<tr>
<td>Mining [SIC 2]</td>
<td>630</td>
<td>78</td>
<td>708</td>
</tr>
<tr>
<td>Transport and communication [SIC 7]</td>
<td>549</td>
<td>84</td>
<td>634</td>
</tr>
<tr>
<td>General government [SIC 91-94]</td>
<td>453</td>
<td>82</td>
<td>535</td>
</tr>
<tr>
<td>Retail trade [SIC 62-63]</td>
<td>438</td>
<td>69</td>
<td>507</td>
</tr>
<tr>
<td>Wholesale trade, commission trade [SIC 61]</td>
<td>324</td>
<td>52</td>
<td>376</td>
</tr>
<tr>
<td>Utilities [SIC 4]</td>
<td>182</td>
<td>31</td>
<td>214</td>
</tr>
<tr>
<td>Community services [SIC 92-99]</td>
<td>138</td>
<td>28</td>
<td>166</td>
</tr>
<tr>
<td>Agriculture [SIC 1]</td>
<td>94</td>
<td>20</td>
<td>114</td>
</tr>
<tr>
<td>Catering and accommodation [SIC 64]</td>
<td>44</td>
<td>9</td>
<td>53</td>
</tr>
<tr>
<td>Construction [SIC 5]</td>
<td>39</td>
<td>7</td>
<td>46</td>
</tr>
</tbody>
</table>

Figure 7: Annualised loss of industry value added (R million)
In the manufacturing sector (SIC 3), the baseline value is R1.2 billion. Under the import scenario, there is a reduction of R166 million, resulting in an impact post-scenario of R1.04 billion. The interdependencies between manufacturing and cement production contribute to the reduction in GDP in this sector.

The mining sector (SIC 2), with a baseline value of R708 million, experiences a scenario impact of negative R78 million. Consequently, the impact post-scenario amounts to R630 million. Mining relies on cement for infrastructure development and operations, thus explaining the reduction in GDP in this sector.

The transport and communication sector (SIC 7) also suffers predictably large losses. Under the import scenario, R549 million is lost.

The apparently small negative change in the construction industry [SIC 5] begs explanation. Recall that we are not modelling a downward shock to supply. Rather, this study explores the impact of imports replacing local production. It therefore makes sense that the losses are amplified upstream and downstream of local producers, rather than in the construction industry itself.

<table>
<thead>
<tr>
<th>Pre scenario</th>
<th>Scenario impact</th>
<th>Post scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 897</td>
<td>-2 241</td>
<td>13 656</td>
</tr>
</tbody>
</table>

Figure 8: Scenario impact on employment (number)
Following the cement import scenario, jobs at risk (Figure 8) are estimated to be 2,241. That is 14% of PPC South Africa’s contribution to national formal and informal sector employment.

Figure 9 provides a breakdown of the nationwide formal and informal employment at risk across industries, as categorised using the SIC system.

![Annualised formal and informal employment at risk (number)](image)

**Figure 9: Annualised formal and informal employment at risk (number)**
Mirroring the impact on value added, formal and informal employment at risk is concentrated in the financial and business services [SIC 8] and retail trade [SIC 62-63]. Community services [SIC 92-99] and manufacturing [SIC 3] also stand to suffer noteworthy losses. With these jobs at risk, income losses are estimated to be R0.5 billion or 16% of labour income supported through PPC South Africa’s operations (see Figure 10).

The negative impact of the scenario on PPC South Africa’s operations also affects the company’s nationwide contribution to tax revenue and capital formation in 2022. Under the scenario, there is a reduction in tax revenue of R0.4 billion (see Figure 12) and a decrease in capital formation of R1.7 billion (see Figure 11).

### Figure 10: Scenario impact on labour income (R billion)

<table>
<thead>
<tr>
<th>Pre scenario</th>
<th>Scenario impact</th>
<th>Post scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.2</td>
<td>-0.5</td>
<td>2.7</td>
</tr>
</tbody>
</table>

### Figure 11: Scenario impact on capital formation (R billion)

<table>
<thead>
<tr>
<th>Pre scenario</th>
<th>Scenario impact</th>
<th>Post scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.9</td>
<td>-1.7</td>
<td>10.2</td>
</tr>
</tbody>
</table>
The import scenario also has significant implications for provincial GDP and employment.

In the WC, the scenario’s effect is especially pronounced, leading to a decline in GDP of R839 million (see Figure 13). This reduction stems from the direct impact on cement production within the province, resulting in decreased economic output and a ripple effect on related industries and sectors. The scenario’s repercussions highlight the strong connection between PPC’s operations and the WC’s economic landscape, emphasising the significance of the cement industry for the region’s overall prosperity.

The EC also experiences a notable negative impact on GDP, with a reduction of R138 million under the scenario. The decline in cement production, coupled with the reliance on imported cement, contributes to the contraction of economic activity within the province.

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**Figure 12: Scenario impact on tax revenue (R billion)**

- Pre scenario: 2.2
- Post scenario: 1.9
- Scenario impact: -0.4

**Figure 13: Scenario impact on GDP by province (R million)**

- Gauteng: 3,195 (3,521 - 33)
- Western Cape: 961 (1,800 - 839)
- North-West: 1,472 (1,521 - 49)
- Limpopo: 995 (1,049 - 54)
- Mpumalanga: 551 (558 - 37)
- Eastern Cape: 54 (193 - 138)
- KwaZulu-Natal: 134 (158 - 23)
- Free State: 82 (98 - 16)
- Northern Cape: 56 (67 - 10)
As for employment in these provinces (Figure 14), the WC suffers the loss of 1,216 jobs under the import scenario. The EC experiences a decrease in employment by 291 jobs.

![Figure 14: Scenario impact on employment by province (number)](image-url)
The immediate economic impact of a company is an important part of its total contribution. To meaningfully gauge the real contribution any business makes, it is vital to take into account several less visible – but just as real – results of its activities.

Via manufacturing, packaging, exporting and distributing cement, a cement company stimulates economic activity throughout the entire cement value chain, encompassing a wide range of producers and suppliers, such as quarry operators (upstream linkages), as well as retailers, builders and the construction industry (downstream linkages). At each of these stages, the multiplication of impact continues as additional income and tax revenues are generated. As each job helps to support another job. Each business spurs on another business. Each salaried employee becomes another company’s customer. And so it goes on.
4 PPC’S CONTRIBUTION TO SOUTH AFRICA

4.1 NATIONAL ECONOMY

Let’s start at the top, with a nationwide analysis.

4.1.1 EMPLOYMENT

In addition to PPC’s own large employment footprint, each job at the company generates value that passes along a chain.

4.1.1.1 WORKFORCE

PPC employed a total of 1,840 people across the country in 2022.

4.1.1.2 POPULATION GROUP PROFILE

As the Figure 15 below shows, 88% of the employees working at PPC are from previously disadvantaged population groups (i.e., Black, Coloured, and Indian/Asian), which is testimony to the company’s commitment to transformation. In addition, workers from previously disadvantaged backgrounds account for more than 94% of the company’s employees at the skilled and semi-skilled levels.

![Population Group and Skills Level](image)

Figure 15: PPC’s employment by population group and skills level
Source: PPC (2022)
4.1.1.3   DIRECT, INDIRECT AND INDUCED EMPLOYMENT IMPACTS

PPC carries out a capital-intensive production process. However, a very different picture emerges once PPC’s suppliers are added. At this level of analysis, one sees the enabling power of cement. This is a product that gives a foundation for everything from financial services to community services. Figure 16 shows the first-round impact on employment for the main supplying sectors – jobs that exist at PPC’s direct suppliers, which our model suggests we can attribute to the existence of PPC.

![Figure 16: First-round impact on employment by industry (thousands)](source)

Source: Authors’ calculations based on the South African SAM (2022)

The indirect and induced impacts supported another 11,396 jobs, taking the total number of jobs supported by PPC’s operations to 15,897 full-time equivalents (FTE) jobs. This represents 0.1% of all employment in South Africa.

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1 According to StatsSA, the number of full-time equivalent (FTE) jobs is defined as total hours worked divided by average hours worked in full-time jobs. One FTE job, therefore, typically equates to one person working a full workday on a permanent basis.
4.1.1.4 EMPLOYMENT MULTIPLIERS

Considering only formal employment, PPC’s economy-wide employment multiplier was estimated at 7.12. Thus, for each person directly employed by the company, almost seven additional upstream and downstream formal sector jobs were sustained in the national economy.

We know South Africa’s informal sector is often under-appreciated for its size and ability to create and sustain jobs. Including this into our calculation expands the multiplier to 8.64 jobs. That is, after accounting for each person employed directly by the company, an additional eight formal and informal jobs were sustained in the national economy.

4.1.1.5 SKILLS DEVELOPMENT

Directly, PPC’s primary contribution is to unskilled employment. This is partly balanced when the economy-wide impact is incorporated. Here we see that skilled and highly-skilled roles become more plentiful. The figure below shows the skills composition of PPC’s economy-wide employment impact.

Figure 17: Economy-wide impact on total employment by skills (%)
Source: Authors’ calculations based on the South African SAM (2022)
The following figure shows the population group composition of PPC’s economy-wide employment impact. The vast majority (84.1%) of the 15,897 jobs sustained by the company’s operations are filled by previously disadvantaged employees.

A richer illustration of the employment effects is shown in the following figure. It highlights that PPC contributes directly to the livelihoods of 15,897 workers within the South African economy. This image does not account for the important follow-on benefits of each worker’s families and other dependents, who rely on this income.

![Figure 18: Economy-wide impact on total employment by population group (number)](source)

Source: Authors’ calculations based on the South African SAM (2022)

![Figure 19: Impact on total employment in South Africa](source)

Source: Authors’ calculations based on the South African SAM (2022)
4.1.2 LABOUR INCOME

PPC contributed an estimated R665.61 million towards household incomes in 2022.

- **Informal**
- **Formal: Skilled (180.41)**
- **Formal: Highly skilled (45.43)**
- **Formal: Semi- and unskilled (439.76)**

Figure 20: PPC’s labour remuneration by skills level (R million)
Source: PPC (2022)

When the labour remuneration of the company’s direct and indirect suppliers and the multiplier effects of consumer income and spending throughout the national economy are considered, the total contribution to labour remuneration increased to R3.2 billion in 2022. Note that an estimated 82% of the labour income generated in the formal sector can be attributed to the semi-skilled and skilled groups.

Figure 21: PPC’s impact on household income (R million)
Source: Authors’ calculations based on the South African SAM (2022)
4.1.3 TAX REVENUES

The national fiscus is another beneficiary. During 2021/22, National Treasury received R417.1 million in tax revenue from PPC, its employees and customers, accounting for 0.03% of total government revenue for that financial year.

The figure below captures the variety of types of tax income generated by PPC’s operations.

- Corporate (38.08)
- Production tax (63.52)
- VAT (146.03)
- Personal (169.51)

Figure 22: PPC’s tax contribution by tax type (R million)
Source: PPC

4.1.3.1 GOVERNMENT REVENUE IMPACT

The tax revenue arising from the direct, indirect and induced impacts of PPC’s operations (i.e., all multiplier effects) increased the National Treasury’s take to R2.24 billion, or 0.2% of the National Treasury’s total tax revenue in the 2021/22 financial year (see Figure 23 below). Indirect taxes paid by consumers total R1.06 billion (or 47.5% of PPC’s economy-wide tax contribution) and direct taxes (i.e., corporate taxes and PAYE) come to R1.17 billion (52.5%).

Figure 23: PPC’s impact on government’s tax income (R million)
Source: Authors’ calculations based on the South African SAM (2022)
4 PPC’S CONTRIBUTION TO SOUTH AFRICA

4.1.4 INTERMEDIATE OUTPUT

PPC’s production activities in South Africa rely on inputs (also known as the intermediate output of the supplying sectors) sourced from various sectors of the economy. The most important ones are coal, fuel, fly ash, and clinker. In addition, the company also requires materials such as paper, adhesives, and wrapping materials from manufacturers, and the company utilises services such as water, electricity, transport, and storage. PPC needs a great deal of maintenance of its equipment and machinery. It depends on external providers for services such as security, cleaning, information technology, marketing, telecommunication, finance, accounting, and consultancy.

4.1.4.1 FIRST-ROUND AND DIRECT IMPACTS

During 2022, PPC purchased goods, services and capital equipment to the value of R4.71 billion directly from local, South African suppliers (i.e., the first-round impact on industrial output or production).

Figure 24: Goods, services and capital purchased from first-round suppliers (R million)
Source: PPC (2022)
4.1.4.2 INDIRECT AND INDUCED IMPACTS

To meet PPC’s cement manufacturing, storage, distribution and export needs, the direct suppliers must, in turn, purchase goods and services from their suppliers – also known as the indirect impact. Successive rounds of supplier purchases create a virtuous chain of economic activity that involves not only the production of output, but also the remuneration of workers and tax contributions. This generates income that is re-spent in the economy – the induced impact.

These multiplier effects are included in the company’s total impact on intermediate output (production) and are shown in the figure above. As a result, PPC’s economy-wide impact contributed a total of R23.7 billion to the intermediate output in 2022.

The figure above illustrates the sectors that benefited substantially from PPC’s operations, including the manufacturing sector (16.1%) and the financial and business services sector, which comprise cleaning, security, marketing and other consultancy services (15.0%).
### 4.1.5 CAPITAL REQUIREMENT

PPC’s operations require the use of various capital goods, including machinery, transport equipment, office buildings, manufacturing sites, and distribution centres.

The value of capital required by the company and its direct and indirect suppliers to sustain the production and supply of cement products in South Africa amounted to R6.3 billion in 2022, of which R293 million is owned by the company directly. We include assets, irrespective of whether or not they are owned by the company, to the extent they are beneficially used to generate PPC’s output.
4.1.6 ECONOMIC VALUE ADD (GDP)

PPC’s total value added to South Africa’s GDP is calculated as R8.80 billion. That is 0.13% of the country’s nominal GDP in 2022.

When considering all production and household effects (i.e., the direct, indirect and induced impacts), PPC’s operations required a capital stock to the value of R11.9 billion in 2022. This amounted to 0.11% of the total fixed capital stock required for economic activity in South Africa in 2022. The figure above shows the composition of the economy-wide capital required.

“PPC contributed 0.13% to South Africa’s GDP.”

Figure 28: Impact of PPC’s operations on SA’s GDP
Source: Authors’ calculations based on the South African SAM (2022)
PPC’s contribution to South Africa’s GDP as shown above can be split (see Figure 29 below) into contributions to household income (R3.2 billion); net contributions to profits and savings (R4.5 billion); and net contribution to production and product tax revenue (R1.1 billion). This amount includes tax revenues, labour income, and other value added by PPC’s activities and those of the company’s suppliers.

![Figure 29: Added value at producer prices related to PPC’s operations (R million)](source: Authors’ calculations based on the South African SAM (2022))

The company’s economy-wide GDP multiplier$^2$ is estimated at 3.43. This means that for every rand of sales revenue generated by PPC, R3.43 of value is added to the national economy as the fruits of that initial productivity filter through the system.

For every R1 of sales, R3.43 of value is added to the national economy.

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$^2$ The GDP multiplier measures the incremental value added along the value chain per unit of output. In other words, the GDP multiplier measures the value added per R1.00 of output produced. Value added consists of the remuneration of labour and capital after considering the consumption of fixed capital and by adding net indirect taxes on production and net taxes on products to give GDP at market prices.
4.2 PROVINCIAL ECONOMIES

PPC’s operations are extensive and span across the country, with a significant presence in six of South Africa’s nine provinces: Gauteng, Western Cape, Eastern Cape, Limpopo, Mpumalanga, and North West. A summary of PPC’s impact in three of the nine provinces is presented in the table below.

<table>
<thead>
<tr>
<th></th>
<th>Gauteng</th>
<th>Western Cape</th>
<th>Eastern Cape</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment Contribution (number of jobs)</td>
<td>6,432</td>
<td>2,667</td>
<td>421</td>
</tr>
<tr>
<td>Labour Income (R million)</td>
<td>1,336</td>
<td>557</td>
<td>80</td>
</tr>
<tr>
<td>Government Tax Revenue (R million)</td>
<td>834</td>
<td>383</td>
<td>60</td>
</tr>
<tr>
<td>Value Added (GDP) at Market Prices (R million)</td>
<td>3,328</td>
<td>1,779</td>
<td>192</td>
</tr>
<tr>
<td>Employment Multiplier</td>
<td>7.8</td>
<td>7.2</td>
<td>9.7</td>
</tr>
<tr>
<td>GDP Multiplier</td>
<td>4.1</td>
<td>2.1</td>
<td>8.2</td>
</tr>
</tbody>
</table>

Table 2: Provincial impact
Source: Authors’ calculations based on the South African SAM (2022)

4.2.1 SUMMARY

This analysis brings into sharp focus the interconnectedness of the economy. The “goodness” (what economists call “utility”) that one company produces lives on in the firms and people within and around it. Employees pay school fees. Suppliers pay entrepreneurs. Each rand moves in a virtuous cycle.

In PPC’s case, the company’s employment figure of 1,840 people expands to the support of a total 15,897 full-time equivalent jobs. An initial contribution to intermediate output of R4.7 billion accumulates to R23.7 billion by purchasing local goods and services. And an initial impact of R2.6 billion contributed to the country’s GDP grows to R8.8 billion by the time it has moved through the economy.

Employees pay school fees. Suppliers pay entrepreneurs. Each rand moves in a virtuous cycle.
4 PPC’S CONTRIBUTION TO SOUTH AFRICA

4.3 SOCIAL CONTRIBUTION

These monetary figures are a good proxy for the value that people place on what PPC does. We know roughly what R1 million means in a practical sense – for example, what it could buy if one were to spend it on a home, or schooling, or medical services. Nonetheless, a qualitative analysis can add richness to any numerical study.

During April 2023, the research team conducted fieldwork in the vicinity of three PPC factories. Interviews were conducted with community members residing nearby PPC’s operations in Pretoria, Piketberg and Gqeberha.

These interviews were informal and aimed at garnering an understanding of PPC factories’ role in the surrounding communities. Fieldworkers spoke to managers and owners of small local businesses, such as butcheries, pharmacies, grocery stores, furniture stores and pawn shops. In addition, informal conversations were held with local residents, day labourers and other informal workers in the area. Finally, an attempt was made at each site to speak to a social worker or other representatives at a local Non-governmental Organisation (NGO) or charity.

Participants were asked general questions about the area, such as who the big employers were, what life and/or business was like (especially in the aftermath of the COVID-19 pandemic), and whether they could tell us anything about the PPC factory and, specifically, PPC’s role in the community.

We conducted thematic analysis of responses and present the common threads below.

4.3.1 COMMUNITY INTERVIEWS

Notwithstanding the different geographical and socioeconomic contexts of each of the three sites, community members across all three locations identified economic hardship and the importance of local institutions as decisive features for their communities. Community members displayed a mixture of positive and negative perceptions of PPC and its role in the local community. A number of opportunities for PPC to deepen its local community relations came through in the data.

**Economic hardship.** Local inhabitants and small business owners across all three sites described an economy that was struggling to recover from the recent COVID-19 pandemic and the various challenges presented by the electricity crisis.

These nationwide, and even global, difficulties are beyond the scope of one company. Communities in such a fragile state represent an important context when considering the results of a potential substitution of local production for imported products.

**Local institutions.** Institutions are crucial to the functioning of any economy. These can be formal, as expressed in the Constitution, provincial and municipal policies and structures, the municipal bylaws, and other legislated ways of formally regulating interaction in a local economy.

Institutions can also be informal, relating to local customs, norms, and values that dictate how community members interact.

This study found that formal and informal institutions play a significant role in these communities. The experience with these institutions differed from PPC site to site. They will be further delved into individually in the following sub-sections.

**Perception of PPC: Positive and negative.** Participants across the three different interview sites expressed positive and negative perceptions of PPC. These dynamics are further analysed on a site-by-site basis below. It was noteworthy that Piketberg residents were far more aware of PPC’s presence in the area. In dense industrial areas, such as in Qebehera and Pretoria, residents were far less aware of PPC. This is to be expected, given the high density of industrial businesses relative to the more agricultural Piketberg. A general trend towards negative/unaware perceptions dominated.

**Opportunity.** All locations presented opportunities for PPC to enhance the organisation’s visible presence in and relationship with the local communities. This data provides valuable guidance on where PPC can expand its positive influence in communities in years to come.
The PPC site in Pretoria is within the township of Hercules, a primarily industrial area that is visibly struggling. A local social worker confirmed these outward signs of distress by explaining the mutual problems of unemployment and drug use.

The head of a charity organisation that provides low-cost housing to residents in need, explained that Hercules has always been an area of poverty and social distress. Given the high density of other factories and businesses in the area, it is difficult to disentangle the exact contribution of the local PPC site from the community's perceptions.

Most participants seemed not to be aware of PPC and its activities, suggesting that PPC has the opportunity to establish and build deeper ties with the local community if the organisation wants to become a social contributor.

**Economic hardship.** The level of economic hardship in Hercules was self-evident. Unemployment and poverty levels are high. Three local businesses confirmed that the local purchasing power is so low that customers are willing to travel from quite far afield for special promotions. For instance, a local pharmacy attracts customers from Centurion, Pretoria North and Kolonnade for the special packets they make up once a month, containing basic over-the-counter medication.

Similarly, the manager at the local Spar supermarket makes up weekly fruit and vegetable packets for R10 a packet, including items such as carrots and potatoes, and confirmed that these are extremely popular. A local petrol station manager interviewed described how they were trying to diversify their business by cooking stews, which are sold mainly to local school children, for R25 each.

A number of small business owners believed the country was in a recession and this showed in their community. This community is living in dire poverty.

**Local institutions.** Neither the formal nor the informal institutions in Hercules are working optimally. Local authorities seem unable or unwilling to address the drug abuse issue. The manager at a local Total fuel station confirmed that the mayor of Pretoria had visited the area and that police are regularly being called in to deal with drug dealers and people who are publicly intoxicated. However, it seems that no one knows exactly how to address the problem.

In addition, infrastructure is not maintained. Locals pointed out that the railway line that runs through the area is now dysfunctional and being plundered to feed demand from local scrap yards.

**PPC perception: Lack of presence.** Business owners, as well as local inhabitants in Hercules, seemed unaware of PPC’s operations in Hercules. Most seemed to think that PPC was no longer in operation.

**PPC perception: Negative.** There is a perception among the community immediately surrounding the Hercules plant that the PPC plant was isolated, quiet, and perhaps even inactive. Participants often named other local factories, such as Coca-Cola, Blue Ribbon, and Sabrix, when prompted about important job creators in the area. In the local perception, wholesalers and scrap dealers seemed to take on a much bigger role in the local community. Though a few participants who had lived in the area for a long time recalled a time when PPC was a significant employer in the area, the current perception was that PPC was ‘quiet’.

Various participants seemed to think that the PPC plant employed only a minimal number of people and was heavily automated. A day labourer who was interviewed close to the PPC plant told us:

“I don’t know if they can create job [sic] now because almost one or two years ago, that company retrenched a lot of guys.”
Another resident who has run a butchery in the area for 63 years, pointed out that there had been complaints regarding the pollution levels emanating from the PPC plant, but they were unsure whether or not this had been addressed.

**Opportunity.** Given the responses from interviewees in Hercules, there is an opportunity for PPC to enhance the company’s image among the local community. One avenue might be to partner with local businesses and law enforcement more visibly to address the seemingly overwhelming drug problem. Infrastructure maintenance (such as the railway lines, which seemed out of use) provides another possibility for the involvement of the local communities.

An interesting disparity was noted between the responses from the Hercules community and those living in Gqeberha. Day labourers interviewed in Hercules reported that they could not afford to buy from PPC and that the PPC plant did not seem amenable to negotiate different terms for them.

“We use cement. We are construction workers, they produce cement. They are there. But instead of making things a bit easier for us…”

This contrasts with participants from Gqeberha, who indicated that they bought from their local PPC plant and paid in instalments. The accuracy of these claims could not be verified. However, it was interesting to note the difference in the communities’ perceptions and the impact that such perceptions could have on support for PPC. If it is indeed the case that such buying arrangements are negotiated with local community members at different sites, it could present an opportunity in Hercules to institute similar arrangements and inform the community about such PPC support.
4.3.1.2 PORT ELIZABETH/GQEBERHA (NEW BRIGHTON)

Similar to the Hercules site in Gauteng, New Brighton is a dense industrial area. There are many other factories in operation in the area, as well as scrap dealers and motor vehicle-related businesses, such as panel beaters.

An employee at a Salvation Army office in the city confirmed that the area suffers from high crime rates and unemployment. While participants were more aware of PPC’s existence and activities in Gqeberha than was the case in Hercules, the perceptions among community members tended not to be positive about the whole area. However, a few community members were optimistic about the recent election of a coalition municipal government and the positive changes that had already been implemented in upgrading and maintaining infrastructure.

Economic hardship. As in Hercules, local business owners confirmed that business was slow and unemployment was high. Similar to the findings from some of the local retailers we encountered in Hercules, a local butcher who operated near the PPC plant confirmed that he made an effort to keep cheaper types of droëwors available for the local community who cannot afford more expensive options. A local community pharmacist pointed out that sex work was quite common in the area among those struggling to find formal employment. As with Hercules, the community is economically and socially depleted and fragile.

Local institutions. Infrastructure constraints were pointed out by local business owners in this area. Loadshedding places small businesses under tremendous stress, with infrastructure seemingly not being maintained. An increasing number of people in the area were sinking boreholes in an effort to provide for their own water needs. However, a few participants pointed out that “things have improved in the past few months” since a new coalition municipality was elected. In addition, whereas drugs were often mentioned as a big problem in Hercules, other crime seemed more of a concern in New Brighton.

PPC perception: Positive. In contrast to what was evident in Hercules, there was a positive sentiment towards PPC in the local community. Various participants mentioned PPC’s role as a sponsor for local community youth activities, such as sports clubs and schools. A few local vendors were aware of the positive multiplier effect created by the fact that local PPC employees support other businesses in the area. Multiple interviewees described PPC as a trusted brand.

“PPC helped us to build our houses. They give us a credit and they will offer you a certain amount of money, which you can use to buy the material and build your house and continue to pay back the money on instalments.”

“This is a platform for PPC to maintain and even grow.

“PPC gives us material to build and we pay back on instalments.”

“PPC helped us with building our houses with their very strong cement; we buy PPC because it is strong and lasts for a long time.”

“A few participants even indicated that PPC made cement accessible and affordable in the following ways:

“And their cement is good and very strong.”

“I know they sell a strong cement.”
PPC perception: Mixed. Some residents were uncertain whether PPC was still operational, with some indicating that they believed PPC had moved or closed. Others seemed to believe that many layoffs had already occurred at the local PPC plant. A few local vendors indicated that although they had enjoyed support from PPC employees in the past, it seemed as though the business had quietened down of late. One vendor who reported regularly selling vetkoek to PPC employees during lunch breaks reported that “… but now, they do not come in numbers.”

Residents further indicated that there was greater competition for PPC in the cement market, as illustrated in the following quotes:

“PPC is no longer functioning well because of Cemza.”

“We now buy Cemza because Cemza it is cheap.”

In contrast to some of the positive perceptions and awareness of PPC’s community efforts that emerged from some participants, others reported that they no longer heard of PPC sponsoring community efforts or they were unaware of PPC’s role in the local community. Such perceptions will need to be addressed to strengthen community buy-in and prove that PPC plays a vital role in local communities.

Opportunity. As is the case in Hercules, there is an opportunity for PPC to improve the local communities’ perception of the company. One participant, for instance, said that they knew PPC sponsored local schools, but could not name any such schools. This suggests an opportunity for PPC regarding recognition of their community efforts. An administrator interviewed at the local Salvation Army indicated a need to collaborate with large businesses such as PPC, but felt unsure about how to initiate contact.
The town of Piketberg is noticeably different from the other PPC sites included in this study. The town is neat and litter-free, with roads and other infrastructure being well maintained.

Perhaps the most striking distinction is the tangible feeling of community pride. While this area is not unafflicted by its socioeconomic ills (a local social worker confirmed, for instance, that alcohol abuse is a big problem in town), the difference seems to be that the community is far more actively working together to address these problems. The town markets itself as “Die skuins dorp met die regop mense” (“The skew little town with upright people”), and various participants echoed this sentiment.

Whereas Hercules and New Brighton are mostly industrial sites, Piketberg is a predominantly agricultural community that relies on tourism, with the Cape-Namibia route running through the town, and various rest stops, coffee shops, guest houses, and so forth catering to visitors.

**Economic hardship.** Piketberg is not immune against the effects of the recent COVID-19 pandemic and the damage caused by ongoing loadshedding. A local furniture store manager confirmed that even his more affluent customers were thinking twice before making purchases and that business had slowed down a lot.

Local retailers seemed to try to make special efforts to assist lower-income customers. A local butcher was selling small packets of off-cuts for R10 and R20, confirming that this was a popular option for many customers. An employee at a local guesthouse told us that two of her sons work at the local PPC plant. When asked about what other work they would potentially have done if not for PPC, she said that the only other real employment option was seasonal work at the surrounding farms, which does not provide as much room for skills development and career progression. One of her sons is a forklift driver at PPC, a job in which he would develop transferable skills.

**Local institutions.** Formal and informal institutions in Piketberg came through as vital pillars of strength. Local inhabitants were proud of their town, and various participants confirmed that the municipality was working well and providing the necessary services. There was a strong feeling of community in the town. This reflected in the way in which small businesses operate – often proactively partnering with the local municipality and law enforcement to contribute to the upkeep of infrastructure and enforcement of law and order in cases where local authorities lacked the capacity.

**PPC perception: Positive.** Given the geographical layout of the town and the limited industrial area, locals were far more aware of PPC and its role in the community. Participants listed it as an important employer in the area, along with a diversified agricultural base surrounding the town, which ensured that the economic activity was stimulated throughout the year. Shop owners were also aware of the positive multiplier effect created by PPC employees spending at local shops and restaurants.

**PPC perception: Mixed.** The community’s perception of PPC in Piketberg was primarily positive. However, a negative response from a local social worker indicated that although PPC had significantly contributed to the local community by building a youth development centre, the feeling in the community was that there was a greater need for places of safety for children who were removed from their parental homes because of alcohol and drug abuse. This suggested that PPC could strengthen community consultation efforts.

**Opportunity.** A visit to the local youth development centre, which had been funded in part by PPC, showed that the centre plays a valuable role in the community. The aftercare teacher on duty explained that she currently has 17 learners on her waiting list. By continuing support for such projects and helping the project to expand, PPC can strengthen the good standing they already enjoy in the community. Such investments in human capital not only help to foster more stable communities today, but also contribute to healthier, better educated employees in the future.
4 PPC’S CONTRIBUTION TO SOUTH AFRICA

4.3.1.4 CONCLUSION

PPC plants are situated in communities that face many of the difficulties that are a scourge across the country. These are the social and economic problems that the entire nation must stand up to. Interviews also unearthed some detailed, personal insights that big data cannot express. The company is to be commended for the positive takes provided by stakeholders. It is the negative sentiments that provide the real opportunities for improvement.

4.3.2 SUPPLIER INTERVIEWS

In addition to community interviews, interviews were also conducted with PPC suppliers. These highlighted and confirmed the challenges currently faced by the cement industry, largely caused by competition from cheap imports and an increasingly challenging regulatory and institutional context.

Suppliers confirmed that they enjoyed a good working relationship with PPC and valued PPC’s business to the extent that they go to extra lengths to remain on PPC’s preferred vendor list. However, administration, including tax clearance, compliance with Broad-based Black Economic Empowerment (BEE) prerequisites and others, had become more onerous than what suppliers faced with other clients.

If PPC were to reduce their own production, PPC suppliers confirmed that their businesses would suffer. Suppliers of consumables (such as bearings) have a broader customer base and a steadier flow of orders coming in. Although they would prefer not to lose the business from PPC, there seemed to be enough other demand to fuel their business. Suppliers of more capital-intensive goods (such as kilns) were already noticing a decrease in orders from PPC. Their sense was that PPC plants were focused mainly on maintenance, rather than expansion or new capital projects.

All suppliers interviewed were aware that circumstances in the cement industry had become very challenging. The suppliers we spoke to were trying to be proactive in their future planning by, for instance, expanding into new markets in the rest of Africa. Suppliers noted an increased pressure on them to remain price-competitive and they pointed out that this was becoming increasingly difficult as cheap imports undercut their efforts to do so.

Additional challenges suppliers faced relate to the institutional context in which they operate. For instance, inadequate railroad infrastructure meant that suppliers were forced to use trucks for transport, which is expensive. Additionally, CO2 emission taxes, which South African producers have to pay, made production far more expensive when trying to compete with overseas suppliers who were not facing the same constraints.

Finally, backlogs caused during the COVID-19 lockdowns placed extra pressure on suppliers, who tried their best to adhere to precise inventory management to accommodate and fulfil PPC’s orders. One supplier noted that in previous years, PPC often kept their own inventory, but in recent times, they increasingly seemed to be shifting that risk onto suppliers.

Suppliers were, therefore, not only keenly aware of the current pressure faced by the entire cement industry, but they were already experiencing their own business challenges. PPC suppliers made the case that the industry will need government protection to stand a chance against overseas competitors.
A survey administered to PPC employees yielded 477 responses. Digital and paper surveys were pooled online. All responses were anonymous.

The pertinent findings from the survey are listed below.

In response to the question, “How many children do you have that are dependent upon you for their material needs?”, a majority of participants indicated that they do have children dependent on them for their material needs, with two children being most common. This is illustrated in Figure 30 below.

One participant elaborated as follows:

“My family as a whole look up on me, my five sisters’ children and other relatives look up to me to assist financially, of which whatever I am receiving as my monthly salary do not suit my monthly budgets. 10 children look up to me.”

<table>
<thead>
<tr>
<th>Number of Children</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>41</td>
</tr>
<tr>
<td>1 child</td>
<td>76</td>
</tr>
<tr>
<td>2 children</td>
<td>106</td>
</tr>
<tr>
<td>3 children</td>
<td>75</td>
</tr>
<tr>
<td>Four and more</td>
<td>68</td>
</tr>
</tbody>
</table>

Figure 30: PPC employees with dependent children
An additional question asked participants, “How many other people, e.g. siblings and/or parents, depend on you for their daily needs?” The results from this question are illustrated in Figure 31 below.

Table 3 summarises responses to the question: “Is anyone else in your household working?”

<table>
<thead>
<tr>
<th>Answer</th>
<th>Number of participants</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>166</td>
<td>35</td>
</tr>
<tr>
<td>No</td>
<td>277</td>
<td>59</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>30</td>
<td>6</td>
</tr>
</tbody>
</table>

Table 3: Participants’ answers to whether anyone else is working in their households

Almost two-thirds of the employees were the only member of the household working.
Participants were also asked, “Did anyone in this household receive income from government grants in the last month?” Table 4 reveals the results.

<table>
<thead>
<tr>
<th>Answer</th>
<th>Number of employees</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>89</td>
<td>19</td>
</tr>
<tr>
<td>No</td>
<td>340</td>
<td>72</td>
</tr>
<tr>
<td>I do not know</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>39</td>
<td>8</td>
</tr>
</tbody>
</table>

Table 4: Participants’ answers to whether anyone in their household received income from government grants in the last month

Expanding on this theme, the employees were asked to indicate whether anyone in their household received income from private pensions, dividends or interest on investments in the last month. Table 5 provides a summary of these answers.

<table>
<thead>
<tr>
<th>Answer</th>
<th>Number of participants</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>20</td>
<td>4</td>
</tr>
<tr>
<td>No</td>
<td>407</td>
<td>86</td>
</tr>
<tr>
<td>I do not know</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>32</td>
<td>7</td>
</tr>
</tbody>
</table>

Table 5: Participants’ answers to whether anyone in this household received income from private pensions, dividends or interest on investments in the last month

Only 4% of the sample could positively state other income sources available to their household in the form of a pension or interest/investments.

PPC employees were also asked about their perceived difficulties in finding employment within the city or town they were living in. They were asked to indicate on a 10-point Likert scale (where 1 is easy and 10 is impossible) how easy or difficult it is to find employment. Figure 32 provides the results.

Figure 32: Participants’ perception of the ease of finding employment
As a follow-up question, employees were asked to indicate if someone in their town/city were to start looking for a job today, how long would be realistic for them to expect to get another job? Several timeframes were provided to the employees. Table 6 represents the responses.

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Number of participants</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within 1 month</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td>Within 3 months</td>
<td>43</td>
<td>9</td>
</tr>
<tr>
<td>Within 6 months</td>
<td>61</td>
<td>13</td>
</tr>
<tr>
<td>Within 1 year</td>
<td>83</td>
<td>18</td>
</tr>
<tr>
<td>Within 2 years</td>
<td>107</td>
<td>23</td>
</tr>
<tr>
<td>I do not know</td>
<td>127</td>
<td>27</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>36</td>
<td>8</td>
</tr>
</tbody>
</table>

The responses mirror the macroeconomic reality of the South African labour market. Once employment is lost, it is exceptionally difficult to find alternative employment.

A key challenge unemployed South Africans face is often the prohibitive costs associated with job searching. To understand the perceived barriers encountered during job searching, the survey also asked participants, “How much money do you think such a person [a person in the participant’s town or city who hypothetically must start looking for a job today] would need to spend each week to look for a job, e.g., transport, printing, airtime, data, etc.?”

Figure 33 shows the number of responses for the various cost categories. The majority (139) of participants indicated a weekly amount of between R500 and R1,500.
We further explored views regarding the role PPC played in participants’ communities. We posed the following question: “On a scale from 1 to 10 (where 1 is not important and 10 is extremely important), how important do you rate the presence of PPC for the economic well-being of the town/city you live in?”

Figure 34 summarises the responses.

Figure 34: Participants’ perceived importance of PPC’s presence for the economic well-being of the town/city they live in

4.3.4 SUMMARY

Communities across South Africa are reeling in the aftermath of COVID-19 and the ongoing energy crisis. These effects are felt within the context of a broader cost-of-living crisis. All these render South Africans economically vulnerable. Communities surrounding the PPC plants in Pretoria, Gqeberha and Piketberg are no different. They are facing these – and other – challenges. Suppliers, employees and communities alike are on an economic knife’s edge.
CONCLUSION

Economics is less a discrete field of study than it is the accumulation of human activity. This study bears out this interconnectedness of industries, individuals, communities and the state. One cannot succeed but for the proper functioning of each of the other segments.

Our modelled scenario puts numbers to the wide-ranging impact of a potential mass substitution of locally produced cement for cheaper imports. Using PPC as the locus, the likely negative results are – as is the case with all economic shocks – systemic.

Against the backdrop of a population already in distress, our intention is that the data and analysis provided serve as valuable resources to business leaders and policymakers alike.