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Large-firm strategies and investment for economic recovery in South Africa

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Abstract

The paper considers the emerging patterns of investment and strategies of large and lead firms in the South African economy, specifically the Top 100 firms listed on the Johannesburg Stock Exchange (JSE), for the period 2011 to 2021. The rationale for considering large and lead firms is that they will play a key role in shaping the country's post-Covid-19 recovery and growth, and they hold significant power in shaping the overall growth path of the South African economy. Moreover, the ownership of productive assets across various sectors of the South African economy remains concentrated and skewed towards a few large conglomerates, which are in some instances vertically integrated (World Bank, 2021). Overall, the analysis shows that weak revenue growth and decaying profitability has translated into declining levels of capital expenditure and a decrease in PPE stock, particularly for the mining and manufacturing sectors. This has, however, occurred alongside increasing and high dividend payout ratios across all sectors as well as rising debt-to-asset ratios. When taken together with significant internationalisation in the form of investment outside of South Africa, the implication is that value created by South African firms is increasingly captured by shareholders or used to finance foreign investments.



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1. Introduction

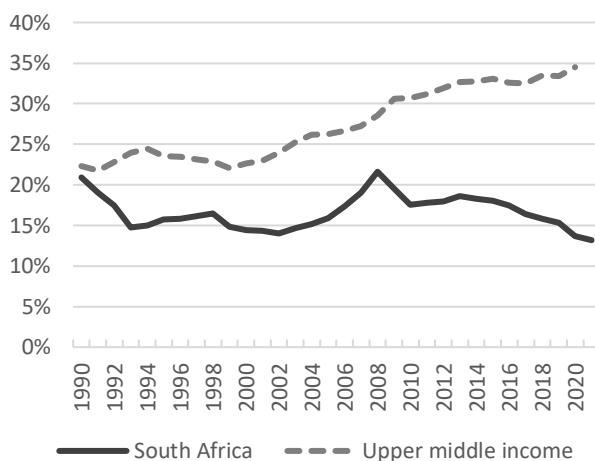
South Africa's economy remains trapped in a low-growth–low-investment economic environment. Low levels of investment have been identified as one of the critical factors behind the country's overall poor economic performance throughout the democratic era, and have also been linked with weak growth, high unemployment, premature deindustrialisation and underperformance in key manufacturing sub-sectors (Andreoni et al., 2021a; Barnes et al., 2021; Zalk, 2021). Crucially, as illustrated in Figure 1, South Africa's rates of fixed investment have grown far less than those of its middle-income country peers. Covid-19 has exacerbated the downward trend, with gross fixed capital formation as a proportion of GDP reaching an historic low¹ of 13,2 percent in 2021.

The economy did experience a period of increasing growth and investment in the period 2000–2010 – largely on the back of the global commodity boom during the first half of that decade, and the massive infrastructure investments in the second half, leading up to the 2010 Soccer World Cup. Yet levels of fixed investments, measured by gross fixed capital formation (GFCF), declined for most of the next decade up to 2020 (**Error! Reference source not found.**).

In addition, South Africa has suffered devastating economic effects from the Covid-19 pandemic, exacerbating the already-high levels of poverty, unemployment and inequality. In 2020, the economy shrank by as much as 7 percent, employment levels fell drastically by nearly 1.5 million, and low-wage workers suffered almost four times more job losses than high-wage workers (World Bank, 2021). The Covid-19 pandemic worsened the already-low investment levels: private sector investment contracted by 15.1 percent year-on-year in the first quarter of 2021 (World Bank, 2021). In particular, small businesses have been most adversely affected by the pandemic (DSBD, 2021).

Figure 1: South Africa gross fixed capital formation vs. peer countries

(a) Gross fixed capital formation (% of GDP), 1990-2021



¹ At least since 1960.

(b) Average gross fixed capital formation (% of GDP), 2011-2020

South Africa	16.9%
Brazil	17.7%
Malaysia	24.5%
Thailand	24.3%
Upper-middle-income countries	32.8%

Source: World Development Indicators; South African Reserve Bank.

The decline of private-sector GFCF in the past decade is in stark contrast to the significant growth of the asset base and market value of all firms listed on the JSE. Total JSE market capitalisation has grown in real terms from around R8 trillion in 2010 to R12 trillion in 2020, while the value of assets has grown from R15 trillion to R23 trillion over the same period (INETBFA data). Market capitalisation is a proxy used to give an indication of the value of companies whose shares are publicly traded on stock markets. Firms with high market valuations are typically those considered (by investors) to be financially stable, profitable and with high growth potential or propensity to pay out dividends.

The primary motivation for firms to offer their shares up for trading on stock markets, and seek to increase their market value, is usually to raise capital for expansion. Thus, other things being equal, the expectation is that an increase in the value of listed firms would be linked to an increase in investment in the real economy. However, in South Africa, the market value in the JSE appears to be delinked from real private sector investment, despite JSE companies possessing enormous financial resources that could potentially be productively reinvested into the economy

Reconstruction and recovery, and the role of large firms

The resumption of economic activity post-Covid-19 offers a window of opportunity for South Africa to craft a suitable package of policies to support the stimulation of a recovery that would be both rapid as well as leading to a more inclusive and resilient economy. The Economic Reconstruction and Recovery Plan (ERRP), released in October 2020, reflects government's vision for stimulating economic recovery post-Covid-19. An important pillar of the ERRP is to revitalise the manufacturing base and create globally competitive export industries, as well as to utilise the opportunities provided by mature industries (agriculture and mining) to revamp the country's industrial and manufacturing potential (SONA, 2021).

Proposed interventions include infrastructure investment; energy security; strategic localisation, industrialisation and export promotion; the green economy; food security; and gender equality and economic inclusion (ERRP, 2020).

The industrialisation component of the policy requires investment by firms. Large firms do not only possess key technologies and ability to make scalable investments, but are also relatively well-resourced to invest in learning and research to build capabilities for industrial development (Chabane et al., 2006; Chandler et al., 1997). For instance, the industrialisation of East Asian economies has been linked to the diversification strategies pursued by large

corporations (Mondliwa and Roberts, 2021). In South Africa, various government strategies highlight the importance of investment and industrialisation for growth and development, and investment has been a critical pillar of President Ramaphosa's economic policies. Notably, in 2018, he set a target of mobilising R1.2-trillion in new investment in an effort to stimulate growth.

Understanding the orientation and strategies of large firms is therefore critical to understanding economic performance, industrialisation, and investment levels (Andreoni and Tregenna, 2021). The investment strategies of large firms shape industrial development outcomes, and these firms are key to efforts to industrialise and create globally competitive export industries.

On the downside, however, large firms can also exercise economic power in ways that are non-productive and undermine structural transformation. Rather than making investments in improving domestic productive capabilities, large firms may decide to focus on using their scale and scope advantages to extract economic rents from their buyers and suppliers, undermining upstream and downstream diversification. They can also exert influence over policies and institutions (Dallas et al., 2019) in order to shape the context in which they operate to their benefit.

In South Africa, the ownership of productive assets across the economy remains concentrated and skewed towards a few large conglomerates, which are in some instances vertically integrated (World Bank, 2021). This means large firms possess significant power to shape the overall growth path of the South African economy, and they will play a key role in shaping the country's post-Covid-19 recovery and growth.

Purpose of the paper

Against this backdrop, the paper considers the emerging patterns of investment and strategies of large and lead firms, specifically the Top 100 firms listed on the Johannesburg Stock Exchange (JSE) and their potential role in contributing to South Africa's economic recovery. We consider listed companies for three reasons: i) as illustrated in section 3 below, listed companies are large and well-resourced to make significant investments that can shape industrial development outcomes – the Top 100 firms in particular represent the majority of total JSE market capitalisation; ii) the largest firms on the JSE are amongst the largest firms in the economy as a whole, such that their orientation and strategies can provide insights into expected patterns of investment in the economy; iii) listed companies publish their financial statements, and thus key data on these companies is publicly available. This paper uses publicly available data and financial information for listed firms for the period 2011 to 2021.

Prior work has shed light on the corporate behaviours of large firms in South Africa, through the analyses of key sectors including food production (Nhundu et al., 2017); metals, machinery and equipment (Bell et al., 2017); supermarkets (das Nair and Chisoro-Dube, 2017); case studies of diversified conglomerates such as Remgro Ltd (Mondliwa et al., 2017), and examination of the investment strategies of the 50 largest JSE-listed firms in aggregate (Bosiu et al., 2017a). Bosiu et al. (2017a) found that firms maintained profit levels without investing in expanded productive capacity; that they retained substantial earnings; and that available funds were used for mergers and acquisitions rather than expansionary investment.

Structure of the paper

Section 2: The data: This is a short discussion on the data we used in our analysis.

Section 3: Overview of large firms in the South African economy: This section provides an overview of the top 100 firms on the JSE, including changing concentration of market capitalisation and changing sectoral composition. We find that the market capitalisation and total assets of the top 20 firms have increased in the period between 2011 and 2021, while fixed asset have decreased. We also find a significant presence of finance and services firms in the top 100 firms in the South African economy, together with firms in the retail, mining and manufacturing sectors.

Section 4: Performance and Investment: This section analyses the investment and profitability trends in key sectors over the last decade and through the Covid-19 pandemic. We find that profitability in the period has been poor, except for the mining sector which has performed relatively well as a result of the commodity boom, and that capital expenditure levels have declined for most sectors.

Section 5: Understanding investment outcomes through financialisation and internationalisation: The section analyses whether large firms in the economy are becoming increasingly financialised and internationalised, and whether they are allocating an increased proportion of their resources to shareholders vis-à-vis investment, and/or to investments outside South Africa. We find increasing financialisation of firms as measured by payouts of dividends and the debt-to-asset ratio together with significant internationalisation of firms.

Section 6: Conclusion and implications for economic recovery and structural transformation.

2. The data

For our analysis, we draw on three main sources of firm-level data: the IRESS SA database; the Thomson-Reuters Eikon database; and company annual financial reports. The IRESS database has been used primarily for the purposes of ranking firms according to their market capitalisation, and for organising them according to sector. Data from the Thomson-Reuters database has been used for subsequent analysis, with company annual financials used to verify and plug gaps in the data where required.

Having compiled rankings by market cap for the years 2011–2021, we established that there are 169 unique firms in the JSE top 100 in this period (accounting for all listing, de-listings and movements of firms up and down the top 100 rankings over the period). Thereafter, we explored available data on each firm and the nature of its business to inform a further process of exclusion from the dataset. Firms were excluded from the dataset if: their JSE listings were secondary listings, and the firms had a very limited operational presence in South Africa²; firms had a limited presence in South Africa despite having primary listings; and key data was unavailable. After the exclusion process, 113 unique firms remained in the database. Excluded firms, as well as the reasons for their exclusion, can be found in **Error! Reference source not found.**

The spread of the 113 firms across the 2011–2021 period is illustrated in Table 1. The table indicates that our sample size fluctuated between a minimum of 66 (2020) and a maximum of 80 firms (2012).

² As measured by South African revenue or assets relative to total.

Table 1: Number of firms included in the analysis, 2011-2021

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Sample size	79	80	79	77	73	73	72	69	73	66	69

Source: Authors.

The firms in the dataset have been organised into 10 sectors: Mining; Manufacturing; Construction; Logistics; Diversified Industrials; Finance, Insurance, and Real Estate (FIRE); Telecommunications; Technology; Retail; and Personal Services. However, to ensure that our charts remain legible, we have limited the sectors presented in the charts to five. These are Mining, Manufacturing, FIRE, Retail and Telecommunications, with an additional category labelled “Top 100 sample” that presents aggregate data for each year’s sample of top 100 firms. The five sectors selected for presentation have been chosen because of their relative weight in the top 100 sample. In 2021, for example, these five sectors accounted for the bulk of revenue (92 percent), total assets (97 percent), and property, plant and equipment (93 percent) in the sample.

3. Overview of lead firms and changes at the sector level

This section examines the evolving composition of the top 100 firms of the JSE. While the total number of firms listed on the JSE has averaged at around 400 over the past 10 years, the top 100 firms have accounted for an overwhelming majority of total JSE market capitalisation: 94 percent in 2011 and 97 percent in 2021 inclusive of all the firms; and 90 percent in 2011 and 89 percent in 2021, when excluding some firms as explained in the previous section³ (Table 2:).

Table 2: JSE Top 100 market capitalisation (current prices), 2011 vs 2021

	2011		2021	
	With exclusions	Without exclusions	With exclusions	Without exclusions
Top 100 market cap (Rand, billion)	3 216	6 041	5 085	16 577
Total JSE market cap (Rand, billion)	3 581	6 393	5 686	17 144
Top 100 market cap (% of total JSE)	90%	94%	89%	97%

Source: Authors’ construction based on Thomson Reuters Eikon data.

To further contextualise the significance of the large and leading firms in the economy, Table 3 shows that the total assets of the largest 10 companies increased from 36 percent of the JSE’s total assets in 2011, to 39 percent in 2021. The total assets of the largest 20 companies increased from 52 percent of total JSE assets, to 57 percent in 2021.⁴ In contrast, the proportions of fixed assets (of both the top 10 and top 20 groups) declined over the same period. This suggests a pattern of increasing accumulation of non-fixed assets relative

³ See appendix 2 for a list of all the companies considered after exclusions.

⁴ The assets of banks and insurance companies are large, and mainly composed of non-fixed assets (loan books financed by deposits, and asset portfolios financed by pension fund contributions etc.). This skews the results, and their data has been excluded from this analysis.

to long-term fixed assets. Or stated in another way, large lead firms appear to be using returns from existing fixed assets to accumulate short-term non-fixed assets. This “sweating” of fixed assets is likely to manifest in especially concentrated markets that may lack the effective competitive discipline required to stimulate productive reinvestment of returns (Bosiu and Vilakazi, 2022 (forthcoming)).

Table 3: Market capitalisation and assets in the JSE Top 100 (2011 vs 2020)

	Ranked by	2011	2021
Top 10	Total assets	36%	39%
	Fixed assets	51%	41%
Top 20	Total assets	52%	57%
	Fixed assets	67%	56%

Source: Authors' construction based on INETBFA data

In the context of small, open economies such as South Africa, where scale economies matter in the production and/or provision of certain goods and services, concentration of ownership of assets is not undesirable per se. However, it is problematic for development if the accumulation and utilisation of resources in concentrated markets reflects a lack of dynamism and competitive rivalry, rather than effort and innovation. In South Africa, many sectors are highly concentrated (Competition Commission, 2021), and dominant firms within these sectors have adopted anticompetitive strategies that have tended to undermine innovation, new entry and productive investments (Makhaya and Nhundu, 2015; Matumba and Mondliwa 2015; das Nair and Chisoro-Dube, 2015; Paelo and Vilakazi, 2016; Ncube et al., 2016; Hawthorne et al., 2016; Roberts, 2017).

The investment decisions and strategies of the leading JSE-listed companies must therefore be understood in terms of the sectors, value chains and activities in which they participate, and the linkages and power dynamics between firms.

In terms of the sectoral composition of the JSE top 100, FIRE companies have strengthened their position further over the decade up to 2021, whereas manufacturing companies have declined from 19 percent of total firms in 2011 to 14 percent in 2021 (Table 4). On the other hand, the mining companies have maintained their relative representation over that period.

Table 4: Sectoral composition of JSE Top 100 (2011 vs 2021)⁵

2011	% of firms	2021	% of firms
FIRE	29%	FIRE	32%
Manufacturing	19%	Retail	19%
Mining	16%	Mining	17%
Retail	14%	Manufacturing	14%
Diversified industrials	5%	Diversified industrials	4%
Personal services	5%	Personal services	4%
Construction	4%	Telecommunications	4%
Telecommunications	4%	Logistics	3%
Logistics	3%	Technology	1%
Technology	1%		

Source: Authors' construction based on Thomson Reuters Eikon data

⁵ See appendix 3 for the sectoral classification of all the firms considered.

We unpack the emergence of financial services companies further here. Between 2011 and 2021, FIRE companies have increased in significance, as shown in Table 4. This growing significance shows how the sectoral composition of the South African economy has changed: from a minerals-energy-complex (MEC) structure (Fine and Rustomjee, 1996; Chabane et al., 2006; Ashman et al., 2012) to a structure with a much greater presence of financial services firms. It is important to note that many of these were unbundled or remain linked directly or indirectly to the major conglomerate groups that led the economy until the 2000s.

Notwithstanding the impact of the increasing role of the financial services companies in the economy on employment and contribution to GDP, the expansion of the financial sector has not been accompanied by an expansion in productive investments (Andreoni et al., 2021b). The sector has contributed to the stagnant share of investment in long-term physical assets as financial companies have increasingly reinvested resources towards speculative and short-term financial assets (Ashman et al., 2012; Bosiu et al., 2017a). In particular, banks tend to extend credit largely towards household consumption as opposed to funding activities in productive industries (Bosiu et al., 2017a).

Other notable changes in the composition of the top 100 firms are in the retail and construction categories. Retail firms have increased their representation in the top 100 from 14 percent in 2011 to 19 percent in 2021. In contrast, construction companies have dropped off the list of the top 100 companies since the beginning of the decade, most likely as a result of the decline in government expenditure on infrastructure projects in 2021 compared to 2011. For instance, government gross fixed capital formation related to infrastructure projects declined from R66 billion in 2011 to R52 billion in 2021, a decline of about 21 percent (Quantec data).

Notwithstanding the strong representation of firms operating in finance, mining and manufacturing, in 2021 the JSE top 100 group is quite diverse, with firms from a range of other economic activities, including telecommunications, logistics, personal services, diversified industrials and technology companies. However, this diversification is not necessarily reflective of structural transformation. In fact, the industrial structure has changed relatively little since 1994 and the economy has exhibited features of premature deindustrialisation (Andreoni et al., 2021a).

4. Analysis of performance and investment outcomes of the top 100 Firms

In the context of low investment in the South African economy overall (Figure 1), understanding the role and performance of large and lead firms in translating revenue and profits into investment can inform policymakers as they face the challenge of designing policies and incentives that can raise the levels of productive investment in the economy. This section presents data on aggregate and sectoral trends in our JSE top 100 sample, beginning with revenue composition and growth.

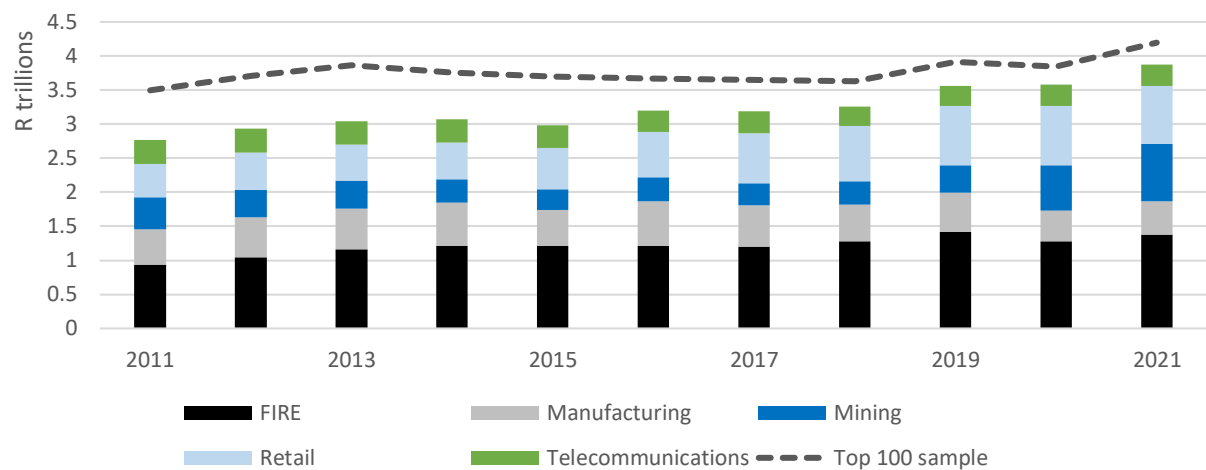
Revenue and revenue growth rates are important drivers of investment. Figure 2 illustrates inflation-adjusted data on these metrics for the period covered in the study. In the aggregate, revenue growth has been muted, at 1.8 percent over the full 2011–2021 period,

with slightly more robust growth of 3.5 percent in the later 2017–2021 subperiod – largely the result of exceptional growth in the mining sector due to booming commodity prices.

A few other sectoral trends are noteworthy. First, in 2011, the five sectors covered in the study accounted for 79 percent of total revenue in the top 100 sample; by 2021, this had risen to 92 percent. This suggests that the importance of these sectors in the JSE has increased considerably. Second, while revenue in the manufacturing sector grew at 4,9 percent per annum between 2011 and 2016, it contracted by 5 percent per annum in the latter subperiod between 2017 and 2021 (driven by the impact of the pandemic), resulting in a net negative growth rate from 2011–2021. And with negative revenue growth in the telecommunications sector across the period, the only sectors aside from mining to increase their revenue in real terms from 2011–2021 have been retail (5,6 percent) and FIRE (3,8 percent).

Figure 2: Total revenue and revenue growth by sector (2020 constant prices)⁶

(a) Total revenue by sector, 2011-2021



(b) Revenue growth by sector

	CAGR (2011-2016)	CAGR (2017-2021)	CAGR (2011-2021)
FIRE	5.1%	3.4%	3.8%
Manufacturing	4.9%	-5.0%	-0.5%
Mining	-5.3%	26.5%	6.1%
Retail	6.1%	3.9%	5.6%
Telecommunications	-1.9%	-1.3%	-1.4%
Top 100 sample	1.0%	3.5%	1.8%

Source: Authors' construction based on Thomson-Reuters Eikon data

⁶ All data presented in 2020 constant prices has been adjusted for inflation using Stats SA's producer price index (December 2020=100).

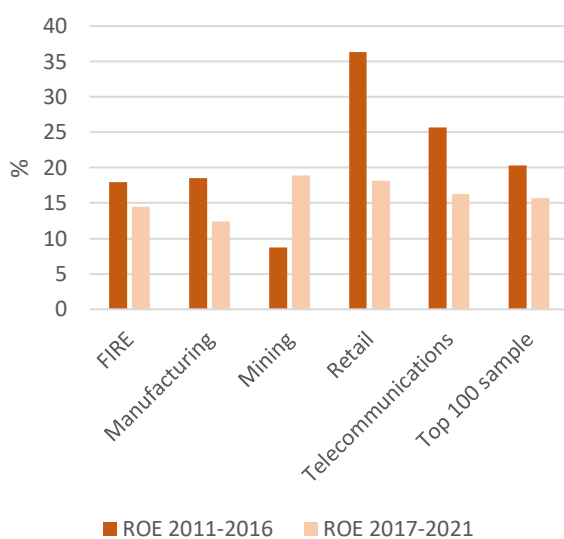
Figure 3 presents data on profitability for the firms in our sample across the 2011–2021 period, with four charts providing insight into trends over the period. Charts (a) and (b) show average return on equity (ROE) and return on assets (ROA) by sector, with the 2011–2021 period split into two subperiods: between 2011–2016, and 2017–2021. ROE is given by net income/shareholder equity, where shareholder equity = assets – liabilities. ROA is given by net income/total assets. ROE measures how much profit a company generates with the money shareholders have invested, while ROA measures how profitable a company is relative to its asset base, giving an indication of how efficiently earnings are generated by its assets.

As measured by both ROE and ROA, for the top 100 sample, profitability fell, with mining the only sector to have enhanced average profitability in the latter subperiod (2017–2021). As with revenue, the increase in mining sector profitability is not the result of increased investment or technical innovation, but is due primarily to rising global commodity prices (TIPS, 2021), a factor outside of firms' control.

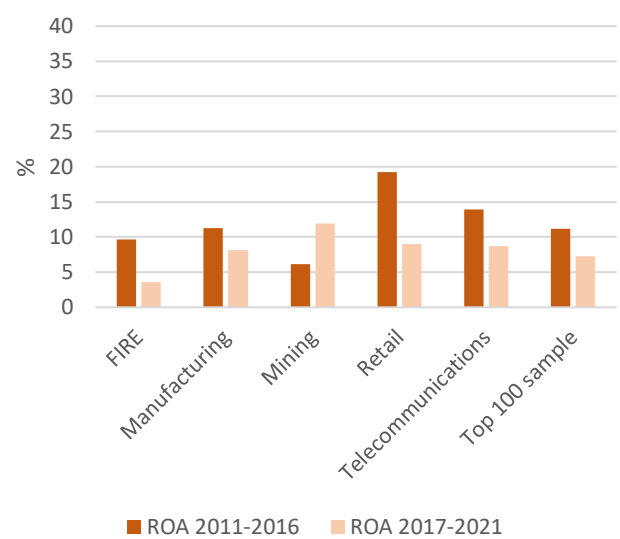
The differences between ROE and ROA also provide insight into the extent to which firms in different sectors are utilising debt as part of their financing strategies. A key concern here is the extent to which debt repayments, and other financial outflows, may deplete firms' resources at the expense of reinvestment in capital expenditure, R&D and other productive investments. When a firm takes on a debt liability, it receives a corresponding asset in the form of cash; this increases its total assets, which thus increases the denominator in the ROA equation and lowers ROA. If a firm has no debt liabilities, shareholder's equity and total assets will be the same, and therefore its ROE and ROA will be equal. The differential between ROE and ROA therefore gives an indication of the importance of debt financing in a firm's capital structure or sources of funds – the larger the differential, the larger the role of debt in a firm.

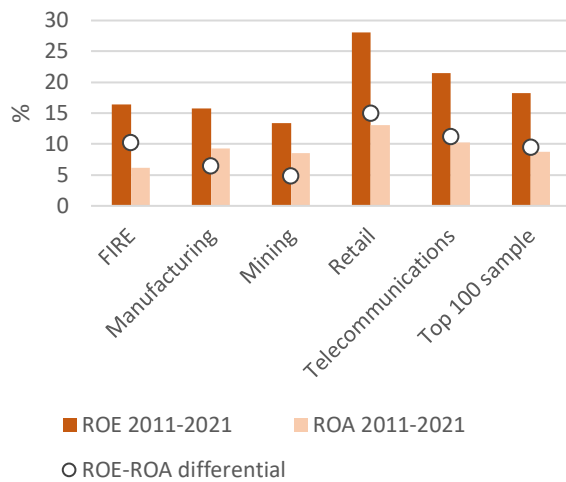
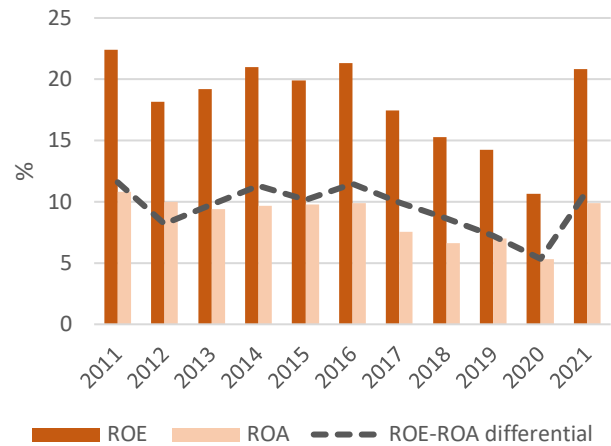
Figure 3: Profitability: top 100 sample, 2011–2021

(a) Average ROE, 2011–2016 vs. 2017–2021



(b) Average ROA, 2011–2016 vs. 2017–2021



(c) Average ROE vs. ROA by sector, 2011–2021**(d) Top 100 sample profitability, 2011–2021**

Source: Authors' construction based on Thomson-Reuters Eikon data.

Charts (c) and (d) provide some insights into this. Chart (c) compares average ROE vs ROA by sector over the 2011–2021 period and shows the differential between them. The retail sector has the largest ROE-ROA differential, at 15 percent, followed by telecommunications (11.1 percent) and FIRE (10.2 percent). Manufacturing and mining follow, at 6.5 percent and 4.8 percent, respectively.

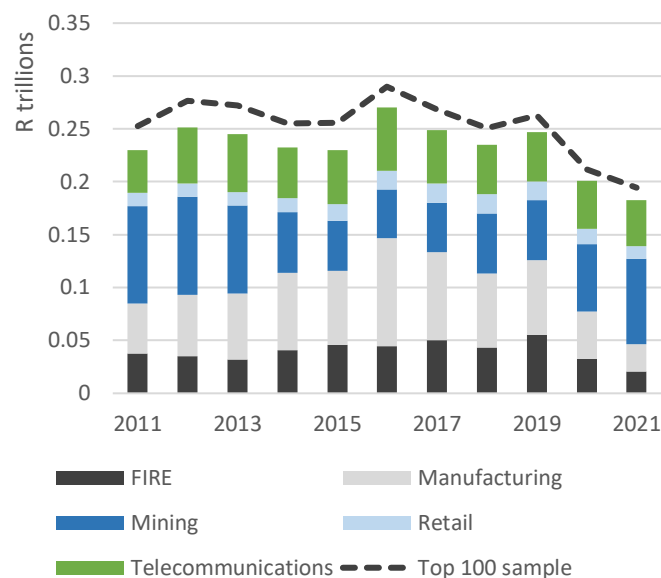
Finally, chart (d) tracks ROE, ROA and the differential between them for the top 100 sample across the period. A rising differential between 2012–2016, indicating growing debt in firms' capital structures, is followed by a period of deleveraging from 2016 until the pandemic hit in 2020, when there is a sharp increase in the ROE-ROA differential between 2020 and 2021. Trends in corporate debt, and the implications and drivers of it, are discussed further below in section 5 on financialisation.

The data we have presented and discussed above illustrate several important points, which are helpful for contextualising an analysis of investment. Except for the mining sector, where performance is closely tied to external factors (in this case, the commodity boom), the period from 2011–2021 has seen weak revenue growth and diminishing profitability. The combination of these outcomes with the domestic situation, including the years of state capture, political turmoil and social crises, and adverse economic conditions in the global economy, appears to have constrained investment by JSE top 100 firms significantly (as we show below).

To illustrate trends and sectoral dynamics in investment, Figure 4 presents data on capital expenditure and growth in capital expenditure for our five core sectors and the sample in aggregate. As with revenue, these sectors account for the majority of capex: in 2011, the five core sectors accounted for 91,2 percent of total capital expenditure, rising to 94 percent in 2021.

Figure 4: Capital expenditure and growth by sector, 2011–2021 (2020 constant prices)

(a) Capital expenditure by sector



(b) Capital expenditure growth by sector

	CAGR (2011-2016)	CAGR (2017-2021)	CAGR (2011-2021)
FIRE	3.5%	-19.8%	-5.8%
Manufacturing	16.7%	-25.8%	-6.1%
Mining	-12.9%	15.0%	-1.3%
Retail	7.1%	-10.2%	-0.4%
Telecommunications	7.9%	-3.7%	0.7%
Top 100 sample	2.8%	-7.7%	-2.6%

Source: Authors' construction based on Thomson-Reuters Eikon data.

Chart (a) shows that capital expenditure at constant 2020 prices for the entire top 100 sample varied between R250–290 billion before the pandemic, with peaks in 2012 and 2016, and troughs in 2014 and 2018. At the sector level, the 2014 trough appears to have been driven by declining investment in the mining sector (again, probably associated with global commodity prices), while declining investment in the manufacturing sector seems to have driven the 2016–2018 downturn.

The impact of the pandemic is clearly visible in the aggregate and across sectors. From 2019–2021, the FIRE, manufacturing, retail and telecommunications sectors all reduced capital expenditure in real terms. Conversely, the mining sector, driven by external factors discussed above, increased its real capital expenditure rapidly over the same period.

The growth rates shown in chart (b) for the 2011–2016 and 2017–2021 subperiods reflect the somewhat counter-cyclical role that the mining sector has been able to play during the latter subperiod. However, it is worth noting again that mining sector investment appears to be externally driven and volatile, as the massive swing in growth rates from 2011–2016 to 2017–2021 shows. The idiosyncratic features of the economic crisis brought about by Covid-19 (e.g., supply chain disruptions) may have triggered a spike in commodity prices, which in turn drove mining investment in South Africa, but there is no guarantee of such outcomes in future crises. It still remains clear that there is a need for there to a recovery in investment beyond mining and for the broader economy to shift onto a higher-investment trajectory in the medium to long term.

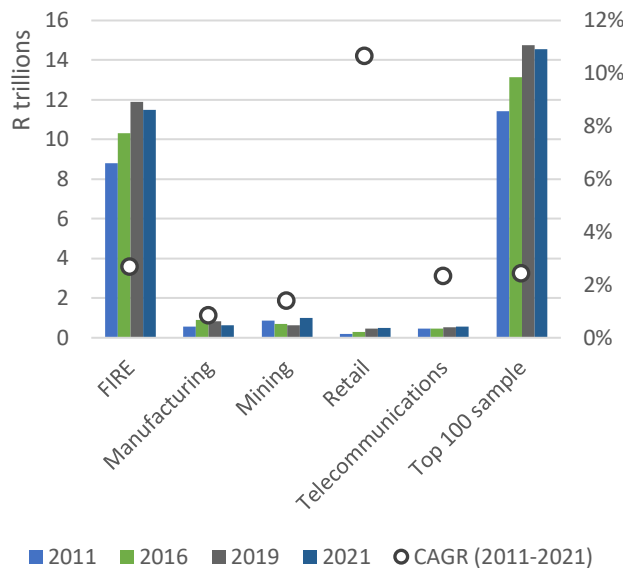
Across the period as a whole then, and despite the spike in mining investment in the latter subperiod, (b) indicates negative growth rates for capital expenditure in the top 100 sample as a whole, and negative growth rates for every sector except telecommunications.

Figure 5 allows us to develop some insight into what the trends above have meant for the country's asset base, particularly its productive assets in the form of listed firms' stocks of

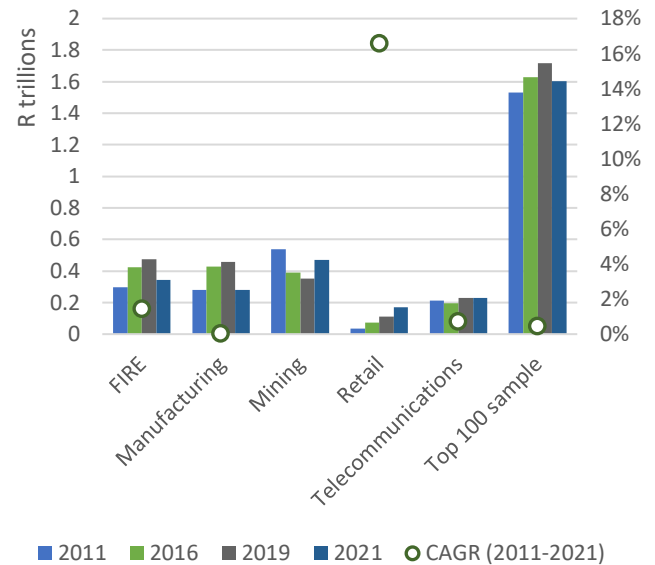
plant, property and equipment (PPE).⁷ First however, charts (a) and (b) allow us to make some more general observations focused on the two most striking features of the charts. The first is the high proportion of FIRE sector assets – i.e. financial assets – in total assets for the top 100 (76-80% of total assets throughout 2011-2021) versus the still significant but far less dominant proportion of FIRE sector PPE relative to other core sectors. Total asset growth has visibly been driven by financial assets in the FIRE sector, while growth in PPE – real physical assets – has been driven by the retail sector.

Figure 5: Total assets vs. property, plant and equipment, 2011-2021 (2020 constant prices)

(a) Total assets and growth by sector



(b) PPE and growth by sector



Source: Authors' construction based on Thomson-Reuters Eikon data

Note: CAGR is reflected on the right-hand axes

The second striking feature is the relatively high growth in the retail sector in terms of both assets (10,7 percent compared with 2,4 percent for the top 100) and PPE (16,6 percent versus just 0,5 percent for the top 100). This observation is interesting when taken together with the -0,4 percent growth in capex for retail shown in the Figure 4(b) above. If a sector has stagnant or declining capital expenditure alongside high growth in both total assets and PPE, the means through which the sector is achieving this may be unclear.

Due to our methodology in this paper, it seems that part of the retail sector's increased capital stock may be the result of new retail firms entering the JSE and/or the top 100. Indeed, the entry of Dischem, Pepkor, Motus and Multichoice into the dataset between 2014 and 2016⁸ appear to account for a significant proportion of the sector's PPE growth in the 2011–2016 subperiod (14,3 percent). However, no new entrants appear in the dataset after 2016, and PPE growth in the 2017–2021 subperiod is significantly stronger than in the previous subperiod (22,2 percent). Growth in total assets alone could be driven by the acquisition of debt. However, the fact that PPE growth is also high suggests that firms in the sector may have expanded their PPE stocks through acquiring the physical assets of smaller,

⁷ The PPE data presented here represents net stocks of PPE – i.e. gross stocks of PPE less depreciation, depletion and amortisation.

⁸ Alongside the departure of JD Group in 2015.

unlisted competitors. Figure 5 (b) suggests that the bulk of such acquisitions in the retail sector may have taken place during the pandemic, with large players taking advantage of the economic turmoil to further entrench dominant positions.

PPE growth rates for core industrial sectors such as manufacturing and mining suggest that South Africa's stock of productive assets has stagnated to an extent that is cause for concern. While PPE in manufacturing grew at 8,9 percent per annum in the 2011–2016 subperiod, it contracted at -9,8 percent from 2017–2021, resulting in practically zero net growth of the manufacturing PPE stock. In mining, the decline of the PPE stock is worse – a -1,3 percent growth rate from 2011–2021 resulted in a net real loss in capital stock, from R540 billion in 2011 to R470 billion in 2021 at constant prices.

5. Investment outcomes, financialisation and internationalisation

This section aims to deepen our understanding of the drivers of declining investment in the South African economy by exploring the impact of financialisation and internationalisation on the behaviour of JSE firms. We present data showing that South Africa's large and lead firms have become increasingly financialised; shareholders have increased their claim on company profits through dividend payouts; and that firms' debt-to-asset ratios have increased. Taken together with low levels of investment, all this suggests that, on the one hand, resources are being diverted from productive investments to paying dividends and servicing debt. On the other hand, it shows that large firms have increasingly adopted outward-oriented investment strategies, leading to declining local productive investments.

5.1. Financialisation

The most widely used definition of financialisation is “the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies” (Epstein, 2005: 3). There have been a wide range of approaches to studying financialisation, with significant strands of research focused on the financialisation of large non-financial corporations (NFCs). The bulk of this research has been on firms in advanced economies, and on how the combination of financial deregulation, global capital mobility, the rise of institutional investors and the establishment of “shareholder value maximisation” (SVM) as the dominant principle of corporate governance has affected these firms (see Rabinovich, 2019 for a review).

Key symptoms of NFC financialisation as identified in this literature include: the restructuring and rationalisation of corporate structure and operations (typically the discontinuation of “non-core” activities); the increasing disbursement of firms' profits to shareholders (through dividends and share repurchases) relative to reinvestment in improved productive capabilities, especially long-term investments in capital goods and R&D; and the increased use of debt relative to retained profits and equity (Davis et al., 1994; Krippner, 2005; Lazonick, 2010; Fligstein and Shin, 2007; Davis, 2016; Andreoni et al., 2021 b). The major change in the behaviour of large firms identified in this literature is a shift in corporate strategy: from that premised on the need to “retain and reinvest” profits – competition on the basis of innovation and market share, to one driven by pressure to “downsize and distribute” – competition on the basis of boosting share prices and short-term returns to shareholders (Lazonick and O'Sullivan, 2000).

Historically, large firms of the type analysed in the literature on financialisation in advanced economies have played a central role in economic development, including in cases of

developing countries successfully catching up with advanced economies (Penrose, 1956; Amsden, 1989). This is because large firms tend to benefit from economies of scale and scope, and achieve relatively large profits (Chandler et al., 1997; Chabane et al., 2006). They are thus well-placed to make the large-scale investments and long-term financial commitments required to support learning and innovation, research and development, and the acquisition and application of advanced technologies (Chang and Andreoni, 2016). However, developmental outcomes depend to a large extent on large firms reinvesting their profits toward upgrading productive capabilities.

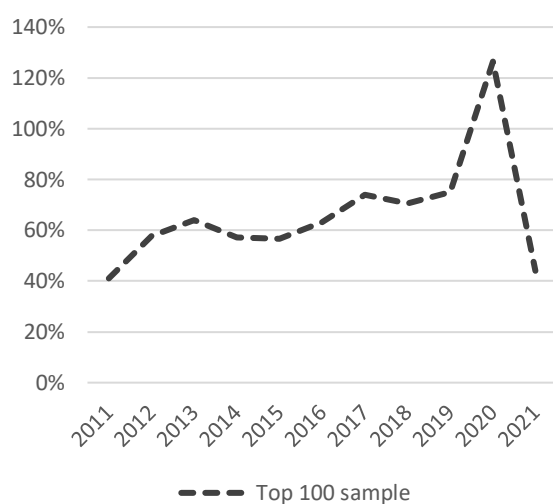
For these reasons, the extent to which large firms in developing countries have been subject to similar processes of financialisation as those in advanced economies is a question with potentially important implications for development. There is a growing literature on financialisation in developing countries⁹, including in South Africa.¹⁰ While financialisation at firm-level remains relatively under-explored in South Africa, it has been the focus of useful research by Bowman (2018), Ducastel and Anseeuw (2018), and Andreoni et al. (2021b).

This section explores the extent to which symptoms of financialisation are present within the sample of JSE top 100 firms covered in the paper. We provide a basic overview of this, structured around an analysis of the uses and sources of funds. While more in-depth analysis of corporate restructuring and rationalisation would provide a more sophisticated understanding of what has taken place inside the firms in our sample, this would be best conducted at the individual firm level. To do this for this paper is not feasible. Rather, we focus on trends regarding dividend payouts to shareholders (uses of funds) and firms' use of debt finance (sources of funds).

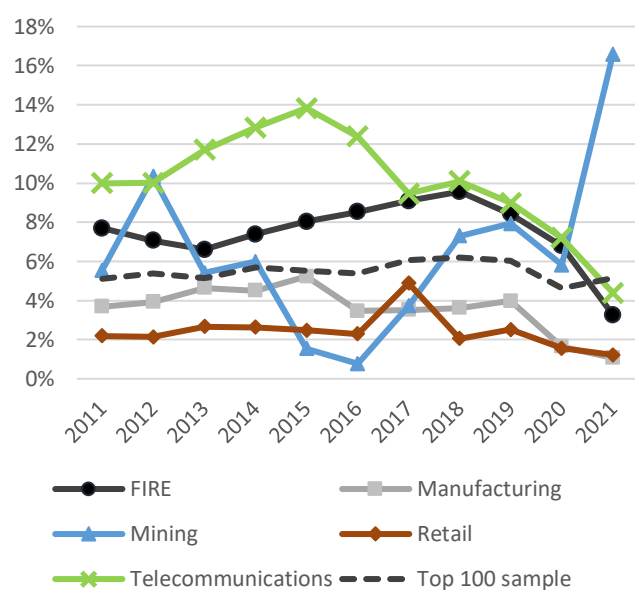
Uses of Funds

Figure 6: Dividends, 2011-2021

(a) Payout ratio (dividends/net income)



(b) Dividends as % of revenue by sector

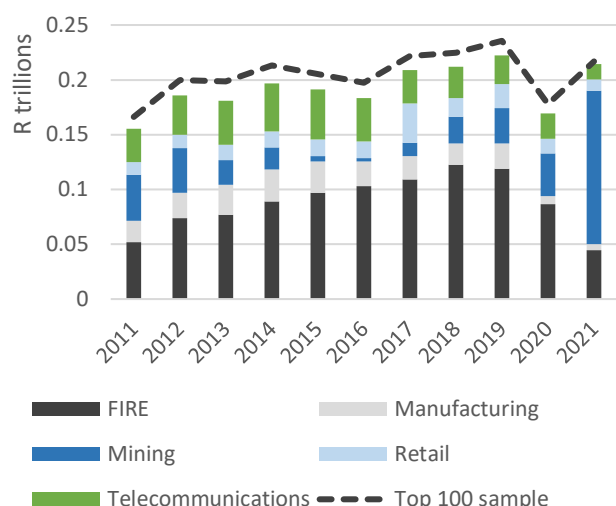


⁹ See Lapavitsas, 2009; Powell, 2013; Kaltenbrunner and Paineira, 2018; Bonizzi et al., 2019.

¹⁰ See Mohamed, 2009; Ashman et al., 2010; Newman, 2014; Isaacs and Kaltenbrunner, 2018; Karwowski et al., 2018.

(c) Dividends by sector (2020 prices)

(d) Dividends growth by sector



	CAGR (2011- 2016)	CAGR (2017- 2021)	CAGR (2011- 2021)
FIRE	14.8%	-19.9%	-1.4%
Manufacturing	2.8%	-29.5%	-12.4%
Mining	-42.0%	83.8%	12.9%
Retail	4.8%	-26.6%	-1.4%
Telecommunications	5.7%	-18.5%	-7.7%
Top 100 sample	3.5%	-0.6%	2.7%

Source: Authors' construction based on Thomson-Reuters Eikon data.

Figure 6 presents several trends related to dividend payments by the firms in our JSE top 100 sample for the 2011–2021 period. Chart (a) presents the payout ratio for the whole sample, which is calculated by dividing dividends by net income¹¹. The payout ratio represents the share of net income that is paid out to shareholders in the form of dividends. The payout ratio is only presented visually here in the aggregate because there are years in which certain sectors recorded a negative net income, creating a great deal of volatility in the ratio. For example, the mining sector as a whole recorded negative net income figures in 2013 and 2015, making its retention ratio difficult to present intelligibly.¹² For this reason, chart (b) presents dividends as a proportion of revenue, which is a more stable denominator. It is worth noting in chart (b) that the mining sector's commodity price-driven windfall is largely benefiting the shareholders of mining firms: as a proportion of revenue, dividends increased from a 2011–2019 average of 5.4 percent to a high of 16.6 percent in 2021.¹³

Between 2011 and 2019, all the key sectors presented in

Table 5 below show a net increase in their payout ratios. The trend for the full top 100 sample is similar: our sample of JSE top 100 firms paid out 41 percent of its profits to shareholders in 2011, rising to 75.1 percent by 2019. It is worth noting from the "Max" column below that, bar manufacturing, every core sector has at some point in the period we analyse had a payout ratio of above 100 percent. A payout ratio higher than 100 percent indicates that the firm or sector in question paid out more in dividends than their net income during the year in question, and implies that in these instances firms are either taking on debt or depleting retained profits in order to reward shareholders.

¹¹ Net income is the profit remaining after the subtraction of all costs and expenses from revenue. Can also be referred to as net profit after tax (NPAT).

¹² See Bowman (2018) for an important discussion of the peculiar dynamics of financialisation in the South African mining sector, with a particular focus on platinum mining firms.

¹³ Conversely, capital expenditure as a proportion of revenue in the mining sector averaged 16,5 percent from 2011-2019, falling to 9,6 percent in 2021. This may be due to a shortage of investment opportunities acceptable to mining sector executives, or simply a result of unexpected revenues.

Table 5: Payout ratios by sector (dividends/net income)

	2011	2019	2021	Max
FIRE	38.1%	68.7%	30.2%	247.8% (2020)
Manufacturing	36.3%	86.7%	20.6%	86.7% (2019)
Mining	41.9%	62.1%	56.5%	154.9% (2018)
Retail	57.0%	124.1%	45.0%	128.1% (2020)
Telecommunications	61.1%	94.7%	43.4%	261.8% (2016)
Top 100 sample	41.0%	75.1%	44.2%	126.4% (2020)

Source: Authors' construction based on Thomson-Reuters Eikon data.

This represents a significant intensification of this particular element of financialisation in that shareholders have successfully increased their claims on the profits generated by South African firms. The pandemic has induced a clear break in this trend, with the payout ratio for all sectors falling over the course of 2019–2021. As a result, as shown in Figure 6 (c) and (d) above, in real terms dividend growth over the full 2011–2021 period appears relatively moderate. However, it is important to note that the dividend growth rate in the top 100 sample in 2011–2021, at 2.7 percent, is higher than the growth rates for revenue (1.8 percent) and capital expenditures (-2.6 percent).

Whether the prior trend of more rapid growth in dividends re-establishes itself in 2022 will need to be observed closely. The economic recovery in countries like South Africa is likely to be driven to a large extent by financial conditions in advanced economies, which may intensify pressure on firms to increase payouts in order to attract inflows of foreign capital (Financial Times, 2022).

These trends may have important developmental and distributional implications. Developing a more sound understanding of both the drivers and outcomes of these trends should be a pressing concern for both researchers and policymakers. In terms of drivers, the liberalisation and internationalisation of the South African economy and financial system is likely to play an important role: demands for high rates of return by international institutional investors have grown in importance as the size of these funds and their weight in the JSE have grown. To attract portfolio investment, South African firms must therefore compete with overseas counterparts on the basis of high rates of return to shareholders (Bonizzi, 2017; Isaacs and Kaltenbrunner, 2018).

In terms of outcomes, excessive returns to shareholders run down firms' most efficient source of investment finance – retained profits – and thus directly compete with potentially more developmental uses of funds in the form of much-needed capital expenditure (Andreoni et al., 2021b). Shareholder pressure on firms' profits may also contribute to inequality. Indeed, financialisation has been linked to diminished labour bargaining power, depressed wage share, and higher incomes at the top end of the distribution (Stockhammer,

2012; Lin and Tomaskovic-Devey, 2013; Dunhaupt, 2014; Alvarez, 2015; Tridico and Pariboni, 2017).

Sources of Funds

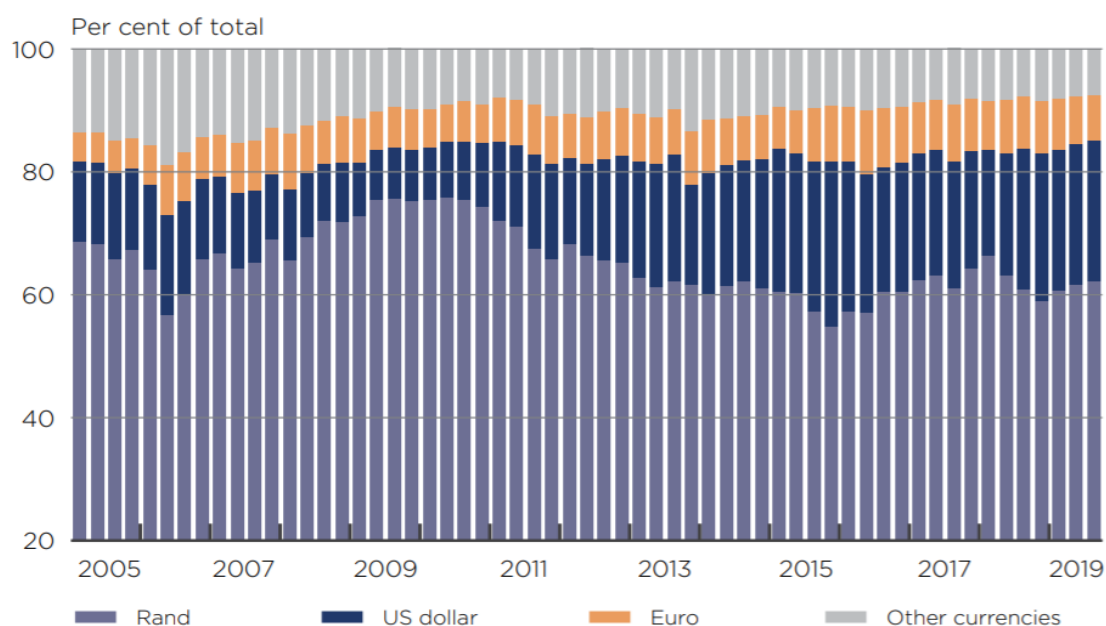
In terms of sources of funds, financialisation has been associated with increasing indebtedness as firms turn increasingly to market-based finance (Powell, 2013). For middle-income countries in particular, firms may come to rely heavily on international capital markets and hard currency-denominated debt. Relatively cheap credit (due to lower interest rates in advanced economies) and the need for US dollars in particular to pay for capital equipment and other imports are potentially powerful drivers of large-firm strategies (Andreoni et al., 2021b). However, accumulating debt in foreign currencies exposes firms to a range of vulnerabilities, as discussed in terms of non-financial corporations (NFC) in Andreoni et al. (2021b: 220):

“US dollar-denominated debt positions expose middle-income country NFCs to two types of vulnerabilities: a currency mismatch between income generating activities and debt servicing costs, aggravated by exchange rate volatility; and a policy risk as the sustainability of the US dollar-denominated debt position is at the mercy of a foreign central bank (primarily the US Federal Reserve), which sets policy rates with no regard for the fate of foreign companies. This double vulnerability requires middle-income country NFCs to engage in costly financial risk management activities or suffer from sudden and substantial losses if the risk is not managed effectively.”

The case studies in Andreoni et al. (2021b) provide firm-level evidence for both the rapid accumulation of debt in general, and US dollar-denominated debt in particular. However, this data cannot be easily accessed and many firms in our sample do not report disaggregated data on the composition of their debt.

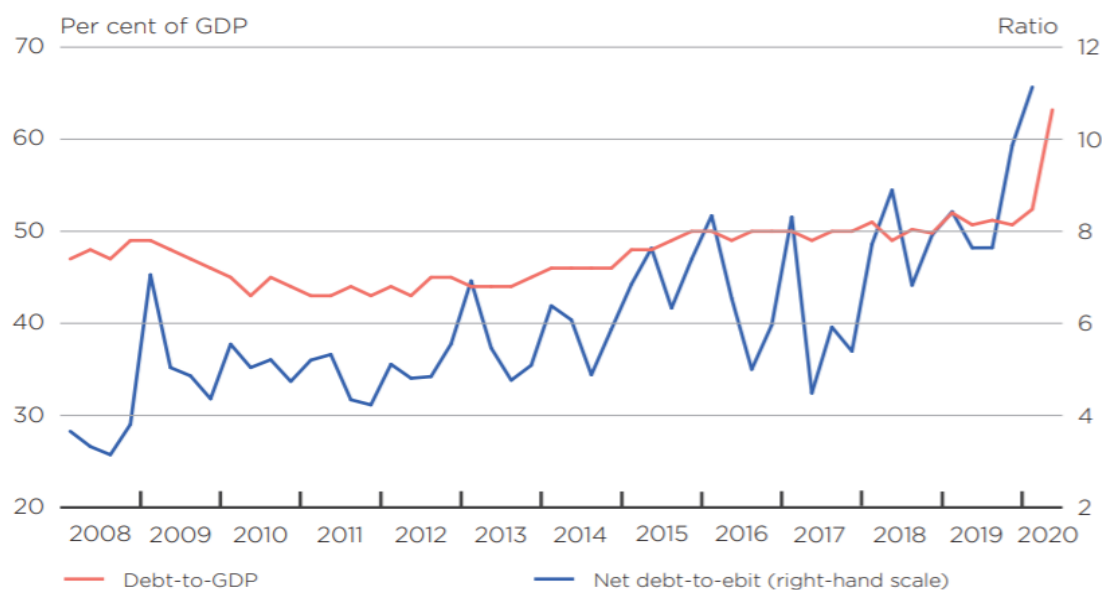
Nevertheless, Figure 7, from the South African Reserve Bank’s (SARB) Financial Stability Review, provides a useful overview of the currency composition of non-financial corporate debt up until the third quarter of 2019. It shows that 38 percent of NFC debt is denominated in foreign currencies, the bulk of which is in US dollars. Figure 8 **Error! Reference source not found.**, also from the SARB, provides an additional picture of consistently rising NFC debt, in terms of ratios of debt to GDP and debt to earnings before interest and taxes.

Figure 7: Currency composition of non-financial corporate debt, 2005–2019 Q3



Source: SARB (2020)

Figure 8: Non-financial corporate sector debt levels

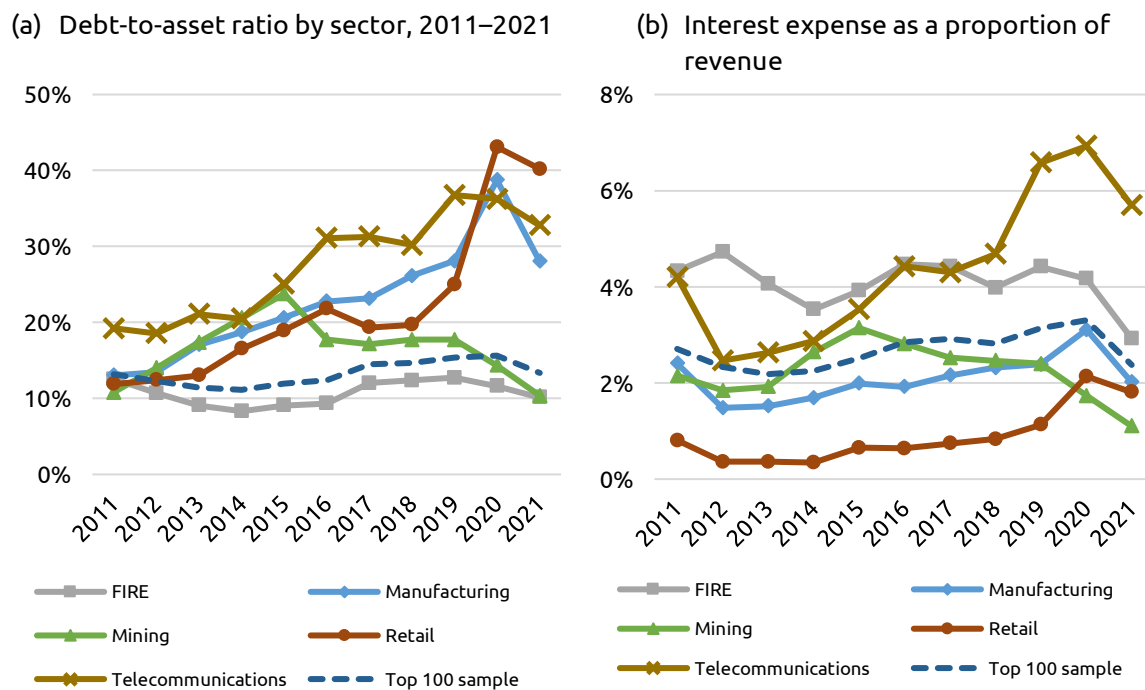


Source: SARB (2020)

As for our sample of JSE top 100 firms, Figure 9 summarises two key measures relevant to our analysis of sources of funds. First, in (a) we observe increasing debt-to-assets (D-A) ratios across the board. The top 100 sample as a whole start with a debt-to-asset ratio of around 13 percent in 2011, rising to 18 percent by 2021. This indicates that in general, the sample firms' assets have become increasingly debt-financed. Within the sample, there are some interesting divergences: in 2011, all sectors had a debt-to-asset ratio in the 10–20 percent range. Over the following decade, FIRE and mining sector firms remained within this range, while manufacturing, retail and telecommunications firms increased their leverage substantially. While 2020 and 2021 see dramatic movements in these sectors, which are

probably idiosyncratic to the Covid-19 pandemic, these three sectors' debt-to-asset ratios had already grown substantially by 2019. The debt-to-asset ratio in manufacturing rose from 13 percent to 28 percent; retail from 12 percent to 25 percent; and telecommunications from 19 percent to 37 percent. These shifts are significant enough to suggest a structural change in the financing landscape and the strategies of firms in these sectors regarding their sources of funds.

Figure 9: Debt-to-assets ratio by sector, 2011–2021



Source: Authors' construction based on Thomson-Reuters Eikon data.

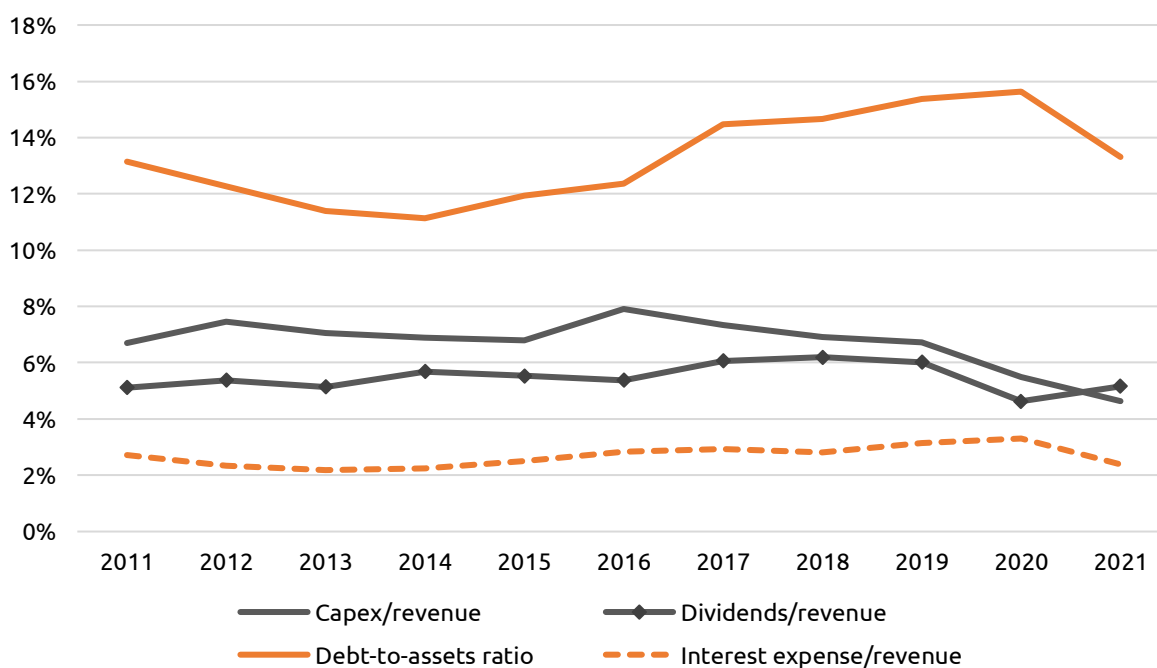
Interestingly, while SARB data for non-financial corporates in general and our own sample data on total debt as a proportion of revenue indicate that the last decade has seen a significant increase in corporate indebtedness, (b) shows that interest expense as a proportion of revenue has increased relatively modestly for our sample as a whole (2.7 percent in 2011 to 3.1 percent in 2019).¹⁴ However, as before, there are sectoral differences underlying the aggregate trend. Financing costs for the FIRE sector fluctuated, but remained within a relatively tight band between 3.5 percent–4.7 percent and lower in 2020 than in 2011. Mining fluctuated more markedly, but was also lower in 2020 than in 2011. Manufacturing and retail sector firms have tracked one another fairly closely, with net increases over the period, albeit relatively small ones. The telecommunications sector is the main outlier, having started with a relatively high interest expense proportion, at 4.2 percent of revenue, financing costs have increased strikingly to 6.6 percent in 2019 and 6.9 percent by 2020. Our data is unable at this stage to shed light on the reasons for this divergence and will require sector-level case study analysis.

¹⁴ With the turn to foreign currency borrowing shown in Figure 7, firms are likely accessing debt at lower interest rates but with the currency risk described above.

Overall Trends

Figure 10 concludes this section by presenting three overall trends relevant for the further exploration of financialisation of South African firms. From the uses of funds perspective, we observe a stagnation in capital expenditure as a proportion of revenue alongside a steady increase in dividends as a proportion of revenue right up until the pandemic. The result over the period has been an erosion of the gap between the two and an eventual position swap – as of 2021, a higher proportion of JSE top 100 revenue was paid out as dividends than was reinvested. In light of the discussion at the beginning of this section regarding the critical role played in development by the reinvestment of large firms' profits, this is an alarming trend and deserving of both further study and policy attention. From the sources of funds perspective, while debt-to-assets ratios have fluctuated throughout the period, interest expenses as a proportion of revenue have remained within a fairly tight band. However, as the global economy enters a period of heightened inflation and central banks act to put upward pressure on interest rates, repayments will become more costly and the likelihood of financial distress for highly-indebted firms may increase.

Figure 10: Overall financialisation trends



Source: Authors' construction based on Thomson-Reuters Eikon data.

5.2. Internationalisation

Stagnant levels of domestic private sector investment in South Africa may be a signal that some JSE-listed companies are raising capital from the domestic economy to fund the acquisition of international and other short-term non-fixed assets, and/or pay out dividends to shareholders. This phenomenon is highlighted in a number of studies (das Nair and Chisoro-Dube, 2015 and 2017; Nhundu et al., 2017; Bosiu et al., 2017a; Bosiu et al., 2017b). It may also signal declining domestic returns to investment relative to elsewhere in the world, as well as increasing returns on investments in economic activities other than those that may require significant fixed capital outlays.

This is important as the country's industrial capacity (which is dependent on investment in fixed capital) could potentially be undermined, as large firms divert financial resources away from investment in the local economy and in sectors considered critical for industrialisation. This links to the core focus of this paper and government's efforts to anchor the post-pandemic economic recovery on reindustrialisation. Thus this subsection focuses our analysis on the emerging pattern of outward-looking investment strategies of the leading firms – which we refer to as internationalisation.

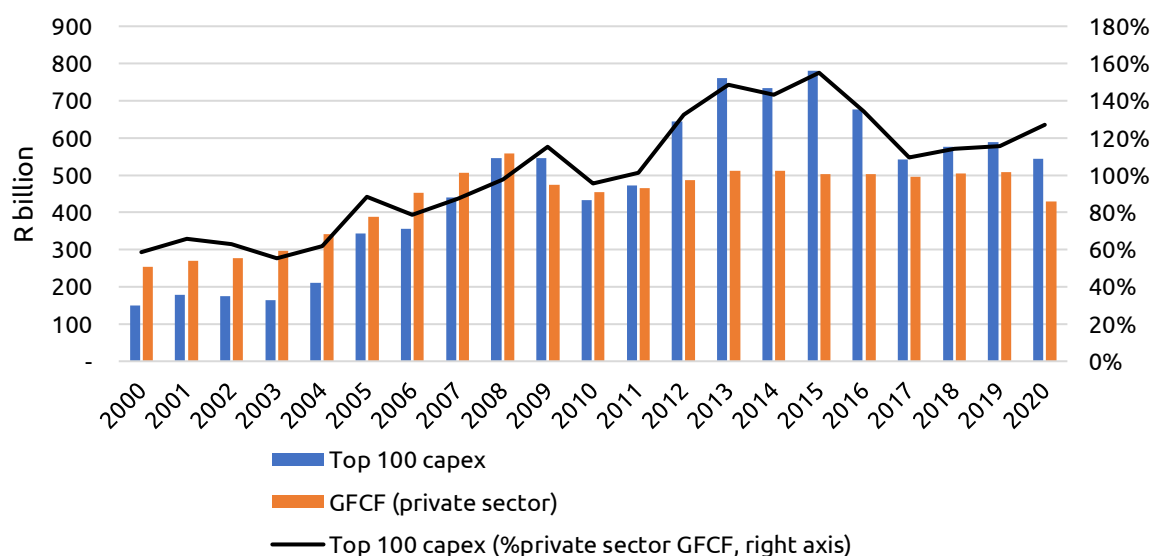
In this paper, we identify four key related pathways through which South Africa's corporations have internationalised: 1) direct expansion of operations outside South Africa, through greenfield investments; 2) mergers and acquisitions with foreign firms; 3) listing on international stock exchanges; and 4) foreign ownership of South African firms. These channels are not necessarily exhaustive nor are they mutually exclusive. Instead, there can be several points of intersection, depending on the individual corporate strategy of a particular firm. For instance, some firms pursue secondary international listings while also engaging in external acquisitions or greenfield investments.

The internationalisation of South African firms has been enabled by globalisation and the liberalisation of trade and exchange controls, and overseas listings. The liberalisation of trade and exchange controls has been enabled in South Africa because of the accepted wisdom – largely put forward by business – that South African firms are able to raise cheap capital from the international markets for reinvestment locally (Chabane et al., 2006). However, in reality, since 2009, there have been low and stagnant investment levels as measured by private GFCF in South Africa. This has reversed the increasing trend that was evident in the decade up to 2009 (Figure 11).

Importantly though, since about 2012, capex among the JSE top 100 firms has been consistently higher than local private sector GFCF. This indicates that a significant proportion of investments by the JSE top 100 firms have increasingly been made out of South Africa. We come to this conclusion confidently because private-sector GFCF contains fixed capital investments of all private firms (including the top 100 JSE listed firms) made in the domestic economy. However, private fixed capital investments made abroad are not recorded under South Africa's private sector GFCF.



Figure 11: JSE Top 100 capital expenditure (% private sector GFCF, 2015 constant prices), 2000-2020



Source: SARB data; INETBFA

Since the liberalisation of capital markets and the successful lobbying by South Africa's corporations for international listings in the 1990s, there has been an increasing pattern of international acquisitions and listings (Chabane et al., 2006). Over the past decade, at least 130 transactions were recorded¹⁵ involving the JSE top 100 firms acquiring foreign companies – valued at no less than R280 billion (in real terms)¹⁶, which is not insignificant in the context of low domestic investment levels. Moreover, by the end of 2021, 43 of the top 100 JSE-listed firms cross/dual-listed.

There have also been greenfield investments outside of South Africa by some of the leading JSE top 100 firms, most notably in the banking, telecommunications and supermarket sectors – with South African firms expanding operations in foreign markets, especially on the rest of the African continent (Makhaya & Nhundu, 2016; Das Nair and Chisoro-Dube, 2016).¹⁷

These cases further support our view that there is a pattern of outward-looking investment strategies by South Africa's large and leading firms. This is likely to persist on the back of positive growth prospects as the global economy recovers from the effects of the Covid-19 pandemic. Indeed, South African firms are likely to continue to pursue opportunities in economies with high growth potential and that are showing strong signs of economic recovery relative to their home market.

The high exposure of some of South Africa's largest firms to international markets may, in part, be a function of the increased investment and influence of foreign shareholders in domestic firms and capital markets. Control of the JSE market capitalisation by foreign and institutional investors has increased substantially over the past two decades: foreign control

¹⁵ Refer to appendix 4 for a comprehensive list of acquisitions of the JSE top 100 firms in the past decade.

¹⁶ Who Owns Whom data. The data records the value of transactions involving the list of companies tracked by Who Owns Whom, including the country of domicile of each party.

¹⁷ Company annual financial statements

increased from an average of around 15 percent in 2000–2009 decade to about 30 percent in the subsequent decade up to 2019 (Who Owns Whom data); and control by institutional investors increased from around 10 percent to about 21 percent over the same period (Table 6). The increasing influence of these investor classes is likely to have implications for both the locational investment decisions of the firms, and on the type of asset classes they invest in.

Table 6: Control (%) of JSE market capitalisation overtime (2000 – 2019)

Investor type	2000 – 2009	2010 – 2019
Foreign	15.86	30.88
Institutional investors	10.38	21.25
Directors	7.71	9.93

Source: *Who Owns Whom data*

On the one hand, institutional investors (asset managers, life insurance companies, stockbrokers)¹⁸ typically seek to maximise returns for their clients over relatively shorter periods. They tend to favour investments in relatively liquid asset classes such as short-term financial instruments, as opposed to investments in long-term physical assets. Similarly, directors¹⁹ of firms are likely to include substantial proportions of liquid assets in their portfolios in order to realise quick returns. This is a response to the pressure placed on them to meet profitability-based performance outcomes. On the other hand, foreign investors may be better informed about investment opportunities abroad compared to opportunities available locally, thus influencing more outward-oriented corporate strategies.

In summary, the above analysis shows that, irrespective of any particular pathway, South Africa's corporations have increasingly become highly integrated with the global markets. This pattern is rooted in the liberalisation of the country's capital markets, which started in the 1990s. The most important implication for South Africa, however, is that capital markets have performed poorly with regards to attracting foreign capital for productive investment into the local economy (Chabane et al., 2006). Instead, capital markets have facilitated massive capital outflows driven largely by the leading JSE-listed companies. Additionally, a growing number of foreign corporations have listed on the JSE and acquired shares in JSE-listed companies. Some of these entities have very few or no operations in South Africa, suggesting that many foreign companies use South Africa as a source of capital to be invested abroad (Bosiu et al, 2017a).

6. Conclusion and implications for economic recovery and structural transformation

Several key insights emerge from the overall analysis provided in the paper. First, and most important, is that investment into long-term productive assets has been low and declining for the past decade. While the market capitalisation of the top 100 large and lead firms in our sample has grown tremendously over the past decade, their investment strategies do

¹⁸ These are professional investors that invest on behalf of pension funds and private investors with the objective of getting the best investment return

¹⁹ According to Who Owns Whom, this may include executive, non-executive or even independent non-executive directors

not appear to match the government's desire for improved local productive investments. In terms of productive investments, aggregate capital expenditure by the lead firms in our sample did not increase in the period 2011–2021, with the exception of firms in the mining sector. Instead, the strategies of the lead firms covered show trends towards significant outward-oriented and non-productive investments. The data shows declines in capital expenditure for every sector, except telecommunications, in the period between 2011 and 2021, with the manufacturing sector experiencing the largest decline of 6.1 percent (CAGR). In addition, the stock of PPE contracted for both manufacturing and mining in the period between 2011 and 2021, with the manufacturing sector performing particularly poorly in the 2017 to 2021 subperiod – the latter part of which was dominated by the Covid-19 pandemic and which had a profoundly negative on the sector.

Second, we observe that profitability, measured by both ROA and ROE, began to erode over the course of the 2011–2021 period for the top 100 sample. This trend holds across all sectors except for mining, which benefited from a surge in commodity prices during the Covid-19 pandemic.

The mining sector is the only sector that showed positive trends in profitability between 2017 and 2021. The sector also exhibited stable debt levels and debt-service costs, and capital expenditure grew by a sizeable 15 percent in the subperiod between 2017 and 2021. Other sectors saw decreasing levels of capital expenditure in this period. The challenge going forward will be how to leverage the value generated by the mining sector in periods of high profitability in ways that support downstream manufacturing activities.

Third, our study shows that the manufacturing sector has performed particularly poorly both in terms of profitability and capital expenditure. Capital expenditure by the manufacturing sector contracted rapidly on an annual basis between 2017 and 2021.²⁰ Investment in long-term productive assets by manufacturing companies is crucial for diversification of South Africa's industrial structure, a critical precondition for long-term and sustainable economic growth.

Fourth, despite poor performance in terms of profitability and investment, payouts of dividends to shareholders increased significantly in the period, with the payout ratio for our sample of firms increasing from 41 percent to 75 percent between 2011 and 2019, before declining after 2020 as a result of the Covid-19 pandemic. All five core sectors that we examined showed an increase in the payout ratio over the period. Shareholders have thus successfully increased their share of the profits generated by South African firms, even when firms appear not to be performing particularly well. In addition, the debt-to-asset ratios of firms increased in the period from 13 to 18 percent with manufacturing, retail and telecoms increasing their leverage substantially, and other data shows rising foreign-denominated debt by non-financial corporates in South Africa.

Finally, our data shows that while investment expenditure has been poor, the JSE top 100 capex has consistently been more than 100 percent of local private sector gross fixed capital formation. This indicates that a significant proportion of the JSE top 100 firms' investments have been made outside of South Africa. Since 2010, there have been a large number of transactions involving JSE Top 100 firms acquiring foreign companies, valued at around

²⁰ Note, however, that we have not conducted an analysis of the investment activities of unlisted firms

R280 billion in real terms.²¹ The low level of profitability suggests that firms have been using other sources of financing (such as debt) to finance the acquisition of assets, rather than relying on retained earnings. There have been outward greenfield investments and the expansion of South Africa's major banks, telecom companies and supermarkets into the rest of the African continent. Thus, while capital markets have performed poorly in attracting cheap foreign capital for productive investment in the economy and investment levels in the economy have been low, there have been significant capital outflows.

Overall, the analysis shows that weak revenue growth and falling profitability has translated into declining levels of capital expenditure and a decrease in PPE stock, particularly for the mining and manufacturing sectors. This has, however, occurred alongside increasing and high payout ratios between 2011 and 2019 across all sectors as well as rising debt-to-asset ratios. When taken together with significant internationalisation in the form of investment outside of South Africa, the implication is that value created by South African firms is increasingly captured by shareholders or used to finance foreign investments.

There appears to be a mismatch between the investment strategies of large and lead firms and government's aspirations with regards to strengthening local productive capacity. The government's ERRP is concerned with South Africa's declining gross fixed capital formation, given that variable's critical role in "sustaining and growing the productive base of the economy" (ERRP, 2020). Despite low profitability, the increasing payouts to shareholders and internationalisation imply that large firms have the necessary financial resources and capabilities that could be leveraged to reverse this pattern and contribute to reconstructing and transforming the post pandemic economy. More analysis is needed of factors attracting or enabling firms to increase payouts to shareholders or invest abroad.

The ERRP implicitly attributes this to high costs of doing business locally, and envisages resolving this through structural reforms. However, the Plan falls short of elaborating on the specifics of these reforms and how they will be achieved. Importantly, the Plan does not engage with some of the fundamental issues that need to be addressed, including the role of macroeconomic and capital markets policy; the lack of effective industrial policies to leverage off existing strong capabilities in upstream sectors like metals and chemicals; and the building of coalitions of interest that support of the organisation of industries for long-term investment in capabilities (Andreoni et al, 2021, Mondliwa et al., 2021., Robb and Vilakazi, 2021).

Transforming the economy and enabling productive investment for structural transformation requires engaging with the power of lead and large firms and marshalling them through regulation and policy, as well building effective coalitions of interest. For instance, state support should be linked to conditionalities related to investment (Mondliwa et al., 2021; Robb and Vilakazi, 2021). In the absence of strategies to marshal large firms to invest productively in the South African economy, the structural transformation project in South Africa is being undermined, leading to deleterious outcomes for growth and employment.

²¹ Who Owns Whom data

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8. Appendices

Appendix 1: Firms removed from JSE Top 100 2011–2020 and primary reasons

Secondary listings	Lack of key data	Low % local revenue/assets	Misc.
1. Anglo American Plc	1. African Oxygen	1. Compagnie Financiere	1. JSE
2. Anheuser-Busch Inbev SA	2. African Phoenix	Richemont	Ltd
3. BHP Group Plc	Investments	2. Epp N.V.	
4. British American Tobacco	3. Capevin Holdings	3. Erin Energy Corporation	
5. Bytes Technology Group	4. Cartrack Ltd	4. Industrials REIT Ltd	
6. Capital & Regional Plc	5. Comair	5. Lighthouse Capital Ltd	
7. Capital & Counties	6. Fortress REIT B	6. Mas Real Estate Inc.	
Property	7. Metorex	7. Mediclinic International	
8. Glencore Plc	8. Optimum Coal Mines	Ltd	

9. Globe Trade Centre SA	9. Pangbourne Properties	8. Mondi Ltd	
10. Hammerson Plc	10. Sibanye Gold	9. Montauk Holdings Ltd	
11. Intu Properties Plc	11. Zambezi Platinum	10. Naspers Ltd	
12. Investec Plc		11. Nepi Rockcastle Plc	
13. Mediclinic International Plc		12. New Europe Property Investment Plc	
14. Mondi Plc		13. Ninety One Ltd	
15. Montauk Renewables Inc.		14. Sappi Ltd	
16. Ninety One Plc		15. Steinhoff International Holdings NV	
17. Old Mutual Plc		16. Trustco Group Holdings Ltd	
18. Prosus NV		17. Uranium One Inc.	
19. Quilter Plc			
20. RDI REIT Plc			
21. Reinet Investments SCA			
22. Rockcastle Global Real Estate			
23. SABMiller Plc			
24. Sirius Real Estate Ltd			
25. South32 Ltd			
26. Textainer Group Holdings Ltd			
27. Vivo Energy Plc			

Appendix 2: JSE Top 100 firms (ranked by market capitalisation), 2011 vs. 2021

Rank	2011	Rank	2021
5	MTN Group	9	Anglo American Platinum
6	Sasol	10	Firststrand
8	Kumba Iron Ore	11	MTN Group
9	Standard Bank Group	12	Vodacom Group
13	Anglogold Ashanti	13	Standard Bank Group
11	Anglo American Platinum	14	Capitec Bank
12	Vodacom Group	17	Sasol
14	Firststrand	18	Impala Platinum
15	Impala Platinum	19	Gold Fields
16	Absa Group	20	Kumba Iron Ore

18	Gold Fields	21	Anglogold Ashanti
19	Nedbank Group	22	Sibanye Stillwater
20	Shoprite	23	Sanlam
21	Exxaro Resources	24	Absa Group
22	Sanlam	25	Shoprite
23	Remgro	26	Aspen Phmcr.Hdg.
24	Bidvest Group	27	Bid Corporation
27	Harmony Gold Mng.	28	Discovery
25	Tiger Brands	29	Nedbank Group
26	Aspen Phmcr.Hdg.	30	Pepkor Holdings
30	African Rainbow Minerals	31	Northam Platinum Hldgs
29	RMB	32	Clicks Group
31	Massmart	33	Rand Merchant In.Hdg.
32	Truworths Intl.	34	Remgro
34	Woolworths Hdg.	35	Bidvest Group
35	Growthpoint Prop	36	Multichoice Group
37	Assore	38	Old Mutual Limited (Jse)
36	Arcelormittal Sa.	39	Woolworths Hdg.
45	Lonmin Plc	41	Exxaro Resources
41	Discovery	43	Mr Price Group
44	The Foschini Group	47	Growthpoint Prop
40	Imperial Logistics	48	African Rainbow Minerals
42	Mommet	49	Royal Bafokeng Platinum
46	Liberty Holdings	50	Harmony Gold Mng.
47	Pick N Pay Stores	52	Distell Group Hldgs
49	Life Healthcare Gp.Hdg.	51	Life Healthcare Gp.Hdg.
51	Mr Price Group	53	Tiger Brands
52	Rand Merchant In.Hdg.	56	Spar Group
53	Redefine Properties	57	Barloworld
54	Tsogo Sun Gaming	58	Transaction Capital
55	Netcare	59	Dis-Chem Pharmacies Ord Shs
56	Spar Group	62	Santam
57	Capitec Bank	63	The Foschini Group
58	Barloworld	67	AVI
59	Santam	68	Mommet
61	PPC	69	Redefine Properties
63	Nampak	70	Telkom Sa Soc
65	Telkom SA SOC	71	Investec
64	Distell Group Hldgs	72	Pick N Pay Stores
68	Aveng	74	Liberty Holdings
66	Capital Property Fd	75	Resilient Pr.Inc.Fd.
75	Northam Platinum Hldgs	76	Truworths Intl.
69	Hyprop Investments	78	Italtile
73	Investec	79	Netcare
67	AVI	81	Motus Holdings Ltd Npv
71	Reunert	82	PSG Group

74	Pioneer Food Group	83	Coronation Fd.Mgrs.
72	Clicks Group	84	Karoo0000 (JSE)
76	Illovo Sugar	85	PSG KST
77	Hosken Cons.Invs.	86	Equites
78	Aquarius Platinum	88	Fortress Reit A
79	Adcock Ingram Holdings	89	Massmart
80	Tongaat-Hulett	92	Imperial Logistics
82	JD Group	91	AECI
85	Brait	95	Super Group
84	Psg Group	96	Rcl Foods
83	Resilient Pr.Inc.Fd.	97	DRD Gold
86	AECI	99	Tsogo Sun Gaming
87	Sun International	100	Kap Industrial
88	Royal Bafokeng Platinum		
92	Grindrod		
91	Murray & Roberts		
94	Fountainhead Pr.Tst.		
95	Lewis Group		
96	Datatec		
97	Coronation FD.Mgrs.		
98	SA Corporate Rl.Est.Fund		
99	Wlsn.Bayly Holmes-Ovcon		
100	Caxton & Ctp Pb&Prt.		

Source: Authors' construction based on Thomson Reuters Eikon data

Appendix 3: Classification of the JSE Top 100 by major economic activity

2011				
FIRE	MANUFACTURING	MINING	RETAIL	DIVERSIFIED INDUSTRIALS
Standard Bank Group	Sasol	Kumba Iron Ore	Shoprite	Remgro
Firststrand	Tiger Brands	Anglogold Ashanti	Massmart	Bidvest Group
Absa Group	Aspen Phmcr.Hdg.	Anglo American Platinum	Truworths Intl.	Barloworld
Nedbank Group	Arcelormittal Sa.	Impala Platinum	Woolworths Hdg.	Hosken Cons.Invs.
Sanlam	PPC	Gold Fields	The Foschini Group	
RMB	Nampak	Exxaro Resources	Pick N Pay Stores	
Growthpoint Prop	Distell Group Hldgs	Harmony Gold Mng.	Mr Price Group	

Discovery	AVI	African Rainbow Minerals	Spar Group	
Mommet	Reunert	Assore	Clicks Group	
Liberty Holdings	Pioneer Food Group	Lonmin Plc	JD Group Dead	
Rand Merchant In.Hdg.	Illovo Sugar Dead	Northam Platinum Hldgs	Lewis Group	
Redefine Properties	Adcock Ingram Holdings	Aquarius Platinum	LOGISTICS	
Capitec Bank	Tongaat-Hulett	Royal Bafokeng Platinum	Imperial Logistics	
Santam	AECI	CONSTRUCTION	Grindrod	
Capital Property Fd.	Caxton & Ctp Pb&Prt.	Aveng		
Hyprop Investments		Murray & Roberts		
Investec	PERSONAL SERVICES	Wlsn.Bayly Holmes-Ovcon		
Brait	Life Healthcare Gp.Hdg.	TELECOMMUNICATIONS		
Psg Group	Tsogo Sun Gaming	Mtn Group		
Resilient Pr.Inc.Fd.	Netcare	Vodacom Group		
Fountainhead Pr.Tst.	Sun International	Telkom Sa Soc		
Coronation Fd.Mgrs.	TECHNOLOGY			
Sa Corporate Rl.Est.Fund	Datatec			
2021				
FIRE	RETAIL	MINING	MANUFACTURING	DIVERSIFIED INDUSTRIALS
Firstrand	Shoprite	Anglo American Platinum	Anglo American Platinum	Remgro
Standard Bank Group	Pepkor Holdings	Impala Platinum	Impala Platinum	Bidvest Group
Capitec Bank	Clicks Group	Gold Fields	Gold Fields	Barloworld
Sanlam	Multichoice Group	Kumba Iron Ore	Kumba Iron Ore	
Absa Group	Woolworths Hdg.	Anglogold Ashanti	Anglogold Ashanti	
Discovery	Mr Price Group	Sibanye Stillwater	Sibanye Stillwater	
Nedbank Group	Spar Group	Northam Platinum Hldgs	Northam Platinum Hldgs	
Rand Merchant In.Hdg.	Dis-Chem Pharmacies Ord Shs	Exxaro Resources	Exxaro Resources	
Old Mutual Limited	The Foschini Group	African Rainbow Minerals	African Rainbow Minerals	
Growthpoint Prop	Pick N Pay Stores	Royal Bafokeng Platinum	Royal Bafokeng Platinum	
Transaction Capital	Truworths Intl.	Harmony Gold Mng.	Harmony Gold Mng.	
Santam	Motus Holdings Ltd Npv	DRD Gold	DRD Gold	
Mommet	Massmart	LOGISTICS		
Redefine Properties	PERSONAL SERVICES	Imperial Logistics		
Investec	Life Healthcare Gp.Hdg.	SUPER GROUP		
Liberty Holdings	Netcare	TECHNOLOGY		
Resilient Pr.Inc.Fd.	Tsogo Sun Gaming	Karooooo (Jse)		
PSG Group	TELECOMMUNICATIONS			
Coronation Fd.Mgrs.	Mtn Group			
PSG KST	Vodacom Group			
Equites	Telkom SA SOC			
Fortress Reit A				

Source: Authors' construction based on Thomson Reuters Eikon data

Appendix 4: International acquisitions by JSE top 100 firms (2010–2021)

Acquisitor	Target company	Year	Value (Rm)	Country of target
Aspen Pharmacare Holdings Ltd	Aspen Pharmacare Holdings Ltd	2010	3900	Australia
Anglo American Platinum Ltd	Unki Mines (Pvt) Ltd	2010	3400	Zimbabwe
Naspers Ltd	Digital Sky Technologies	2010	2900	Russia
African Rainbow Minerals Ltd	Konkola North Copper Project	2010	2770	Zambia
Liberty Holdings Ltd	CFC Insurance Holdings Ltd	2010	1600	Kenya
Barloworld Ltd	Vostochnaya Technica	2010	365	Russia
Pick n Pay Retailers (Pty) Ltd	TM Supermarkets	2010	91	Zimbabwe
Steinhoff International Holdings (Pty) Ltd	Conforama Holdings S. A.	2011	12000	Luxembourg
Sasol Ltd	Talisman Energy	2011	7400	Canada

Sasol Ltd	Farrell Creek Assets	2011	7100	Canada
Imperial Logistics Ltd	Lehnkering Distributionslogistik GmbH	2011	2900	Germany
Naspers Ltd	Markafoni	2011	1400	Turkey
Life Healthcare Group Holdings Ltd	Max Healthcare Institute Ltd	2011	850	India
Datatec Ltd	Netarx	2011	238	United States
AngloGold Ashanti Ltd	First Uranium Corporation	2011	210	Canada
Datatec Ltd	Inca Software	2011	102	United Kingdom
Bidvest Services Holdings (Pty) Ltd	Velocity Road Repair Systems	2011	20	United Kingdom
Mondi South Africa (Pty) Ltd	Nordenia International AG	2012	6500	Germany
Exxaro Resources Ltd	African Iron	2012	2400	Australia
Aspen Pharmacare Holdings Ltd	GlaxoSmithKline PLC	2012	2100	United Kingdom
Mediclinic International (RF) (Pty) Ltd	Emirates Healthcare Holdings Ltd (Dubai)	2012	1600	United Arab Emirates
Tiger Brands Ltd	Dangote Flour Mills PLC	2012	1500	Nigeria
Invicta Holdings Ltd	Kian Ann Engineering	2012	1100	Singapore
Adcock Ingram Holdings LtdGroup	Cosme Farma Laboratories	2012	708	India
Trencor Ltd	Teu Managed Container Fleet	2012	624	United States
PPC Ltd	Cimerwa Cement Company	2012	555	Rwanda
Mondi South Africa (Pty) Ltd	Mondi Swiecie S.A.	2012	530	Poland
Momentum Metropolitan Holdings Ltd	Momentum Wealth Namibia (Pty) Ltd	2012	349	Namibia
Investec Ltd	Investec Europe Ltd	2012	320	Ireland
PPC Ltd	Habesha Cement Company	2012	147	Ethiopia
Mondi South Africa (Pty) Ltd	Duropack	2012	125	Germany
Redefine Properties International Ltd	Earls Court Holiday Inn Express Hotels	2012	122	United Kingdom
PPC Ltd	Habesha Cement SC	2012	120	Ethiopia
Premier FMCG (Pty) Ltd	Swaziland United Bakeries	2012	85	Eswatini (formerly Swaziland)
Datatec Ltd	Corpnet	2012	25	Australia
Naspers Ltd	Souq.com	2012		United Arab Emirates
Distell Group Ltd	CJ Wines & Spirits	2012		China
Wilson Bayly Holmes-Ovcon LtdGroup	Contexx Holdings Pty Ltd	2012		Australia
Naspers Ltd	Netretail Holding	2012		Poland
Grindrod Ltd	Petrologistics	2012		Botswana
Aspen Pharmacare Holdings Ltd	GlaxoSmithKline PLC	2013	9800	United Kingdom
Nedbank Group Ltd	Ecobank Transnational Incorporated	2013	4934	Nigeria
Murray and Roberts Holdings Ltd	Clough Ltd	2013	4000	Australia
Gold Fields Ltd	Granny Smith Gold Mines	2013	3000	Australia
PPC Ltd	Barnet Group sprl	2013	2300	Democratic Republic of Congo
Distell Group Ltd	Burn Stewart Distillers Ltd	2013	2300	United Kingdom

Sanlam Ltd	Shriram Transport Finance Company Ltd	2013	1000	India
Barloworld Ltd	Husab Uranium Project	2013	1000	Namibia
Datatec Ltd	Logicalis SMC BV	2013	288	Netherlands
Zeder Investments Ltd	Mpongwe Milling Ltd	2013	270	Zambia
Imperial Logistics Ltd	MDS PLC	2013	267	Nigeria
Mediclinic International (RF) (Pty) Ltd	Dubai Pathology Laboratories	2013	262	United Arab Emirates
Grindrod Ltd	Victoria Foods (Pvt) Ltd	2013	32	Zimbabwe
Datatec Ltd	iConsult (Jersey) Ltd	2013		Jersey
Famous Brands Ltd	UAC Restaurants Ltd	2013		Nigeria
Massmart Holdings Ltd	Naivas Ltd	2013		Kenya
Old Mutual Investment Group (Pty) Ltd	Faulu Kenya	2013		Kenya
MTN Group LtdGroup	MTN Cyprus Ltd	2013		Cyprus
PPC Ltd	UCS Group Ltd	2014	3500	Algeria
Woolworths Holdings Ltd	David Jones Pty Ltd	2014	2140	Australia
Life Healthcare Group Holdings Ltd	Max Healthcare Institute Ltd	2014	1350	India
Mondi South Africa (Pty) Ltd	Graphic Packaging International	2014	1050	United States
SPAR Group Ltd	BWG Group	2014	990	Ireland
Imperial Logistics Ltd	Imres BV	2014	644	Netherlands
Super Group Ltd	Allen Ford motor dealers	2014	606	United Kingdom
Hosken Consolidated Investments Ltd	Impact Oil and Gas Ltd	2014	550	United Kingdom
AECI Ltd	Clariant International AG	2014	409	Switzerland
Momentum Metropolitan Holdings Ltd	Cannon Assurance Ltd	2014	300	Kenya
Tsogo Sun Gaming Ltd	Redefine BDL Hotel Group Ltd	2014	145	British Virgin Islands
Assore Ltd	Ironbridge Capital Pty Ltd	2014	140	Australia
Distell Group Ltd	Kenya Wine Agencies East Africa Ltd	2014	105	Kenya
RCL Foods Ltd	Senn Foods Logistics (Pty) Ltd	2014	80	Botswana
Aspen Pharmacare Holdings Ltd	New Zealand New Milk Ltd	2014		New Zealand
Vodacom Group Ltd	Vodacom Tanzania Ltd	2014		Tanzania
Mediclinic International (RF) (Pty) Ltd	Al Noor Hospitals Group Plc	2015	13200	Abu Dhab
Mediclinic International (RF) (Pty) Ltd	Spire Healthcare Group PLC	2015	8600	United Kingdom
Super Group Ltd	nlc Pty Ltd	2015	2030	Australia
Super Group Holdings (Pty) Ltd	IN TIME Service GmbH	2015	900	Germany
Mondi South Africa (Pty) Ltd	Ascania Nonwoven Germany	2015	825	Germany
Curro Holdings Ltd	Wyndhoek Gymnasium	2015	180	Namibia
Mondi South Africa (Pty) Ltd	KSP Co	2015		South Korea
Famous Brands Ltd	Retail Group (Pty) Ltd	2015		Botswana
Oceana Group Ltd	Daybrook Fisheries Inc	2015		United States
Sibanye Gold Ltd	Stillwater Mining Company Inc	2016	30000	United States
Steinhoff International Holdings (Pty) Ltd	Darty Ltd	2016	13860	United Kingdom
Life Healthcare Group Holdings Ltd	Alliance Medical Group Ltd	2016	10400	United Kingdom
Ascendis Health Ltd	Remedica Holdings Ltd	2016	7577	Cyprus

AngloGold Ashanti Ltd	Gold production capacity	2016	6000	Guinea
Naspers Ltd	Ibibo Group Pvt Ltd	2016	3700	India
Imperial Logistics Ltd	Palletways Group Ltd	2016	3586	United Kingdom
Famous Brands Ltd	GBK Restaurants Ltd	2016	2100	United Kingdom
Mondi South Africa (Pty) Ltd	Kalenobel Ambalaj Sanayi ve Ticaret AS	2016	1524	Turkey
SPAR Group Ltd	SPAR Holdings AG	2016	690	Switzerland
Pioneer Food Group (Pty) Ltd	Streamfoods Holdings Ltd	2016	150	United Kingdom
Quantum Foods Holdings Ltd	Galvos Ltda	2016	31	Mozambique
Curro Holdings Ltd	BA ISAGO University	2016		Botswana
Pioneer Food Group (Pty) Ltd	Weetabix East Africa Ltd	2016		Kenya
Naspers Ltd	MakeMyTrip Ltd	2016		India
Harmony Gold Mining Company Ltd	Hidden Valley Services Ltd	2016		Papua New Guinea
Foschini Group Ltd	Whistles	2016		United Kingdom
FirstRand Bank Ltd	Aldermore Group PLC	2017	23000	United Kingdom
Naspers Ltd	Delivery Hero SE	2017	10075	Germany
Rand Merchant Investment Holdings Ltd	Hastings Group Holdings PLC	2017	7884	United Kingdom
Aspen Pharmacare Holdings Ltd	AstraZeneca PLC	2017	7800	United Kingdom
Vodacom Group Ltd	Safaricom PLC	2017	3500	Kenya
Foschini Group Ltd	Retail Apparel Group Pty Ltd	2017	3093	Australia
Bidvest Group Ltd	Noonan Services Group Ltd	2017	2700	Ireland
Sappi Ltd	Cham Paper Group Holding AG	2017	1937	Switzerland
Sun International Ltd	Sun Dreams S.A	2017	945	Chile
Altron Ltd	Blenheim Group Ltd	2017	576	United Kingdom
Mondi South Africa (Pty) Ltd	Excelsior Technologies Ltd	2017	528	United Kingdom
Equites Property Fund Ltd	Exton Estates Three Ltd	2017	462	United Kingdom
Sun International Ltd	Thunderbird Resorts Inc	2017	338	Peru
	Casinos Peruanos SA	2017		Peru
Bid Corporation Ltd	Guzman Gastronomía S.L.	2017		Spain
Sibanye Gold Ltd	Sibanye UK Ltd	2018	2000	United Kingdom
Omnia Holdings Ltd	Oro Agri SEZC Ltd	2018	1200	Cayman Islands
Santam Ltd	Saham Assurance S.A.	2018	864	Morocco
Murray and Roberts Holdings Ltd	Russells Ltd	2018	649	United Kingdom
Mondi South Africa (Pty) Ltd	Powerflute Group Holdings Oy	2018	541.9	Finland
Mondi South Africa (Pty) Ltd	National Company for Paper Products and Import & Export S.A.E.	2018	356	Egypt
Datatec Ltd	Coasin Chile S.A.	2018	242	Chile
Naspers Ltd	iyzi 43dem eve Elektronik Para Hizmetleri A.S.	2019	2475	Turkey
Sappi Ltd	Matane Mill	2019	2370	Canada
Zeder Investments Ltd	East African Seed Company Ltd	2019		Kenya
Bidvest Group Ltd	PHS Bidco Ltd	2020	9100	United Kingdom
Barloworld Ltd	Wagner Asia Equipment LLC	2020	3620	Mongolia//
Momentum Metropolitan Holdings Ltd	Momentum Insurance Ltd	2020	50	Namibia

Datatec Ltd	iZeno Pvt Ltd	2020	Singapore
Datatec Ltd	Allolio&Konrad Consulting GmbH	2020	Germany

Source: *Who Owns Whom data*

