



Creative destruction or simple reshuffling? Turnover among businesses and jobs in South Africa

Justin Visagie, Ivan Turok and Andrew Nell

ERSA working paper 907

June 2025

Creative destruction or simple reshuffling? Turnover among businesses and jobs in South Africa

Justin Visagie¹, Ivan Turok² and Andrew Nell³

Abstract

The concept of creative destruction emphasizes how the turnover of businesses and workers drives innovation, productivity gains and aggregate economic growth, even as individual firms and employees experience disruption. This article leverages administrative tax data for South Africa that measures flows rather than stocks, enabling a dynamic analysis of labour and firm adjustments. Our findings reveal unexpectedly high levels of churn in both jobs and business establishments, suggesting fluid rather than rigid markets. However, job and business creation mirror destruction, resulting in low net growth. Moreover, sectoral shifts over time have not increased the share of tradables, implying that structural transformation has stalled.

JEL codes: J63; L11; L25; L26; O14; R11; R12

Keywords: creative destruction; job creation; job destruction; job reallocation; job turnover; firm turnover; firm entry; firm exit; structural transformation; urban labour markets; South Africa

¹ Justin Visagie, Chief Research Specialist, Human Sciences Research Council; Assoc Prof, Dept of Economics and Finance, University of the Free State; jvisagie@hsrc.ac.za; <https://orcid.org/0000-0002-2526-231X>

² Ivan Turok, Distinguished Research Fellow, Human Sciences Research Council; Professor, Dept of Economics and Finance, University of the Free State; iturok@hsrc.ac.za; <https://orcid.org/0000-0001-5520-2492>.

³ Andrew Nell, Freelance Consultant to HSRC; Data Analyst, Independent; andrew@andrewnell.com

“The fundamental impulse that keeps the capital engine in motion comes from the new consumers’ goods, the new methods of production and transportation, the new markets ...[The process] incessantly revolutionizes from within, incessantly destroying the old one, incessantly creating a new one. This process of creative destruction is the essential fact of capitalism.”

Joseph Schumpeter, 1942, p.83

1. Introduction

Competition is the primary driver of market economies. The ever-present threat of rivals compels incumbent firms to reinvest, upgrade and innovate, or risk losing market share and resources. This competitive dynamic results in a constant reshuffling of the economic hierarchy, where less productive businesses are replaced by more efficient ones (Bartelsman et al, 2011; Haltiwanger et al, 2014). Joseph Schumpeter famously described this process as ‘creative destruction’ in which firms must continually reinvent themselves to remain profitable, often at the cost of jobs, products, and industries that become obsolete and disappear (Schumpeter, 1942). This process may be even more important in today’s contested and fast-changing global environment shaped by multiple technological revolutions, geopolitical realignments, protectionist tendencies and adaptations to climate change.

At the aggregate level, business and worker churn should drive economic renewal, technological modernisation and growth, even if it initially causes some downsizing and job destruction. New firms introduce fresh ideas, products, and techniques that spur economic diversification, expansion and sustainable employment (Birch, 1979; Haltiwanger, 2011; Decker et al, 2020). Conversely, limited churn may cause economies to stand still and stagnate. Labour market rigidities, monopoly power, and overregulation can shield incumbents from competition and produce inertia, thereby preventing more productive new entrants from reinvigorating and reshaping the economy.

Despite the significance of economic flows, most economic reporting focuses on static measures – recording total stocks of jobs, output, and assets at a given point in time (Davis et al, 1996; Haltiwanger et al, 2014; World Bank, 2024b). Measuring turnover in economic activity requires access to longitudinal data, which is relatively scarce, because it is more costly, complex and computationally intensive compared with conventional cross-sectional data. As a result, the dynamics of firm entry, exit, and survival remain understudied, and somewhat neglected in policy-making too.

South Africa illustrates this all too well, with limited prior research on firm turnover and labour market churn (Kerr et al, 2014; Kerr, 2018). Yet exploring the extent of worker and business churn is critical in light of the country's prolonged economic stagnation, chronic unemployment and need for productivity improvements and structural transformation. The conventional wisdom is that the economy is characterised by widespread inertia, concentrated ownership, an unchanged industrial structure and labour market rigidities, rather than vigour and vitality (Mondliwa and Roberts, 2021; Oqubay et al, 2021).

In a recent report on South Africa, the World Bank (2024a) criticised the lack of competition in many economic sectors, the dominance of large incumbent firms, and the lack of dynamism in the private sector. It pointed to the limited extent of business churn as a crucial part of the problem with the strong assertion that: "Creative destruction, the natural process of new firms entering the market and moribund ones exiting ... has been *largely absent*" (2024a, p.1, emphasis added). It also endorsed the IMF estimate that "South Africa could boost GDP per capita growth by 1 percentage point in the short term and up to 2.5 percentage points in the long-term by improving contestability in key markets" (World Bank, 2024a, p.4).

This article explores whether the country's economy is more dynamic than commonly assumed, or whether inertia and inactivity prevail. It is motivated by a simple yet fundamental question: Is there more change and adjustment in firm and job numbers than typically believed? Embedded within this question are several related inquiries: To what extent do firms of different sizes, sectors, and locations experience restructuring? Are certain sectors and regions more dynamic and generative of new activity than others? How have these patterns shifted over time, particularly in response to shocks such as the Covid-19 pandemic?

This kind of essential groundwork is made possible because of a valuable new data source on business and employment dynamics for South Africa. Administrative tax data from the National Treasury Secure Data Facility (NT-SDF) provides a comprehensive and granular longitudinal panel of firm and employee data. This dataset reveals the diverse pathways through which businesses grow or decline –whether via start-ups, branch expansions, or firm closures– and the different drivers of employment growth or contraction. Crucially, for the first time, this data is available at the municipal level, offering new insights into local economic dynamism across the country.

2. Literature review

2.1 Firm Dynamics, Job Flows, and Growth: International Perspectives

Studies of firm behaviour using panel data across both developed and developing countries present a consistent picture of firm heterogeneity – in size, productivity and survival – even within narrowly defined sectors and markets (Bartelsman et al, 2004). A key lesson is that the extent of worker and business churn is often large, particularly in comparison with the overall net growth, and is primarily driven by within sector churn rather than changes between sectors (Davis et al, 1996; Bartelsman et al, 2004; Wit and Kok, 2014). In some instances it is the performance of a small number of dynamic firms which drive growth for the entire sector (Picot, 1997). As a result, the growth prospects for the average firm can diverge significantly from the overall trend in the sector. This has serious implications for industrial targeting when intra-industry firm dynamics are overlooked.

A central debate in the literature is whether small or large firms drive economic growth (Davis et al, 1996; Wit and Kok, 2014; Haltiwanger et al, 2013; Neumark et al, 2011; Kerr et al, 2014). Small firms are key contributors to job creation but also face lower survival rates, leading to higher job destruction. This volatility contrasts with larger firms, which grow more steadily and shape long-term employment trends. In well-functioning markets, resources tend to flow towards the most productive businesses. Firms that use capital and labour most efficiently are the ones that expand, while less productive firms either adapt or exit (World Bank, 2024b). This process, known as allocative efficiency, ensures that resources are directed to where they generate the highest returns. A number of empirical studies confirm a positive correlation between firm size and productivity (Bartelsman et al, 2011). Hence, in a healthy economy, young firms operate under an 'up or out' dynamic, where they must grow rapidly or exit the market (Haltiwanger, 2011). The World Bank (2024b) argue that many middle income countries become stuck when they lack business churn which facilitates reshuffling towards the most productive and competitive firms. Hence the distinction between gross and net flows is crucial in designing policies to support small business development, ensuring that interventions enhance entry and growth, rather than merely prolonging survival and exit.

A related theme is the role of major urban areas as nurseries for new firm formation (Glaeser et al, 2010; Duranton and Puga, 2001). Cities are particularly important incubators of entrepreneurship and new firms due to the wide range of suppliers and support services available, as well as their large, diverse customer base. The strength of these entrepreneurial

ecosystems means that cities tend to house a disproportionate number of new and expanding firms. Further research is needed in corroborating these stylised facts with evidence from firm panels and related job flows.

2.2 Labour Market Churn and Firm Dynamics in South Africa

There is a small but growing body of research on business and worker churn in South Africa. The most comprehensive work on job flows has been pioneered by Andrew Kerr (see Kerr et al, 2014; Kerr, 2018). Kerr et al (2014) use firm-level panel data from the Quarterly Employment Statistics (QES) survey for the period 2005–2011, accessed through special permission from Statistics South Africa. The QES covers firms across all economic sectors except mining and agriculture.

A key finding is that South Africa’s job reallocation rate –the combined gross total of job creation and destruction– stands at approximately 20% of total jobs per year, comparable to OECD levels. The authors argue that the labour market does not appear to suffer from excessive rigidities. Additionally, larger firms exhibited a much higher net rate of job creation (i.e., job creation exceeding job destruction, leading to employment expansion) compared to smaller firms. However, these findings remain exploratory due to several limitations of the QES.

First, the QES sampling frame excludes firms not registered for Value Added Tax (VAT), omitting many micro and small enterprises. Second, while the QES is conducted quarterly, its sample frame was only refreshed three times over the six-year period, leading to a systematic undercounting of firm births—an important driver of job creation, particularly among smaller firms. These omissions limit the ability to draw firm conclusions about the performance of small businesses.

Kerr’s more recent paper (2018) uses firm and worker tax records from the NT-SDF for the period 2011 to 2014. Although the NT-SDF sample is larger and more comprehensive than the QES, covering all tax records and sectors and including firms of all sizes, a limitation is that the IRP5/IT3a tax forms, analysed in this study, only became mandatory (for all employees regardless of remuneration) in the 2011 tax year. As a result, the firm population was still changing during this period. Our own assessment of the IRP5/IT3a records suggests that tax submissions stabilised only from the 2014 tax year. This implies that years prior to 2014, such as those in Kerr’s study, may be missing a significant portion of the firm population and may

therefore be unreliable. For instance, the Spatial Tax Panel, based on the same records, does not publish data prior to 2014 for this reason, among others. In addition, several changes and improvements in the way the IRP5/IT3a data is shared, documented, and understood may also affect some earlier results⁴.

Despite these data challenges, Kerr (2018) makes several important contributions regarding job flows in South Africa, as well as extending the analysis to include worker flows⁵. Consistent with earlier work, Kerr finds high levels of job and worker creation and destruction. The rate of job reallocation fluctuates between 22.1% and 24.8% over the period, about three percentage points higher than the 2014 estimate. Kerr reaffirms that there is no clear sign of labour market rigidity despite South Africa's reputation for having an inflexible labour regime. He also shows that job creation and destruction vary significantly by industry, with job flows being much lower in government-related sectors and much higher in agriculture and construction. Job flows are also significantly higher among smaller firms (with a 45% job reallocation rate for firms with fewer than 20 employees) compared with larger firms (10.5% for firms with more than 5000 employees), implying greater competition and dynamism among smaller firms. However, unlike the 2014 study, the net impact of job creation (i.e., job creation exceeding job destruction) was not skewed in favour of larger firms.

To the authors' knowledge, the most up-to-date estimates of job creation and destruction for South Africa come from Ndubuisi and Owusu (2023), who also use data from the NT-SDF focused on a sub-sample of manufacturers covering 23 manufacturing sub-sectors. Their primary concern is understanding how a firm's participation in global value chains influences job creation and destruction. They find that international trade initially increases net job creation, but not among large established firms, and only at the point of firm entry, as continuous participation actually leads to net job loss. While their discussion is primarily concerned with econometric modelling and results, they report that job creation in each firm was around 22% per year, with job destruction at about 16%. This results in a job reallocation rate of 38%, much higher than Kerr's estimates. Such a high level of job reallocation is partly

⁴ Including better documentation for the data, confirmation from SARS relating to different variables, data maturity and consistency in the data sharing process, improvements to the available industry classifications, as well as the way duplicates in the data are processed.

⁵ The key distinction between worker flows and job flows lies in what is being measured. Worker flows count every individual hire or termination within a firm, whereas job flows focus on the net change in the number of available jobs within the firm. By definition, worker flows are always higher than job flows, as employee turnover does not necessarily result in a net change in the total number of jobs. Therefore, job flows highlight shifts in jobs between firms, while worker flows capture the overall rate of employee churn, which may or may not impact the total number of jobs within each firm.

due to how Ndubuisi and Owusu construct their job flow indicators, which gives equal weight to firms of all sizes. This approach underrepresents the influence of large firms, which employ a larger share of the workforce, and inflates the job reallocation rates.

In summary, while research into firm and job flows in South Africa has advanced, data limitations and methodological differences across studies lead to varying estimates of job creation and destruction. Nevertheless, these studies consistently demonstrate the dynamic nature of South Africa's labour market, emphasising the heterogeneity of job flows, with small firms and specific sectors exhibiting significantly higher volatility.

We aim to improve on these studies in several important ways. First, we update estimates of job flows in South Africa to cover the period from 2015 to 2022, which includes the COVID-19 pandemic. Second, we devote greater attention to the role of business change components (firm births and deaths). Related to this, we explore the relationship between job creation and destruction at the branch level through branch openings and closures, which is particularly important for large firms. Third, we examine the influence of geography (enabled because we incorporate branch-level analysis) on job flows, including the contribution of metros as incubators of firm births. Fourth, we explore interactions with industry and firm size, as highlighted in previous studies. The details of our data and methods are described in the following section.

3. Data, methods and definitions

3.1 Data

The data for the study is prepared from administrative tax records from the South African Revenue Services (SARS) available within the NT-SDF (Pieterse et al, 2017; Ebrahim and Cassim, 2021; Ebrahim et al, 2021). Researchers can apply to make use of the data but must work on site within a secure environment in light of the sensitivity of the information. The backbone of the analysis is derived from the pre-aggregated Spatial Tax Panel database within the NT-SDF. Further detail about the data cleaning and preparation process is provided in the appendix.⁶

⁶ A public version of the Spatial Tax Panel is freely available and can be explored online (see: www.spatialtaxdata.org.za). However, the public Spatial Tax Panel does not include any individual-level firm or worker records but instead aggregates data into a set of indicators across a variety of spatial layers (i.e. the unit of observation is a municipality or neighbourhood rather than a firm or worker). To replicate this analysis, the individual-level records must be accessed within the NT-SDF.

The main advantage of using tax data is the near-universal sampling of workers and firms— at least for those operating in the formal economy.⁷ The tax database includes any employee in South Africa earning more than R2,000 per annum as derived from the SARS IRP5/IT3 certificates for the tax period 2013/14 to 2021/22 (Ebrahim and Axelson, 2019; Kerr, 2018). This restricts the analysis to firms that create employment (i.e. entities with at least one employee), thereby excluding shelf or dormant companies. This approach aligns with the international literature because inactive entities are often numerous but contribute little to real economic activity. We analyse roughly 84.7 million tax certificates between the 2015 and 2022 tax years, which account for approximately 10.4 million Full Time Equivalent (FTE) employees and approximately 438 thousand employer establishments per tax year.

3.2 Methods

Our methodology is primarily descriptive focusing on measuring the extent of business and employment churn. Clear definitions are essential to ensure transparency, replicability, and comparability with other local and international studies.

The conventional approach is to frame business and employment turnover within the context of the firm lifecycle, emphasising the role of firm births and deaths alongside the stock of existing enterprises. From a jobs perspective, job creation arises either from new firm births or net hires within expanding firms. Conversely, job destruction results from firm closures or net layoffs within contracting firms.

A key distinction in the analysis lies in the level of aggregation: whether examining ‘firms’ as independent business entities (e.g., companies) or at a more granular level of ‘establishments’ or ‘branches’ as separate physical locations (e.g., factories, offices, shops, or plants). Given our interest in the spatial distribution of economic activity, most of the results are reported at the branch level, which provides greater geographic detail. However, a limited number of firm-level statistics are included to allow for benchmarking against other countries.

We identify six discrete ‘components of change’: the births and deaths of firms, the opening and closure of branches or establishments (within existing firms), and job creation and loss

⁷ The nature of informality means that such informal workers and enterprises are not captured in tax data. In South Africa, the formal sector is estimated to contribute 94% of Gross Domestic Product and 83% of total employment (Fourie, 2018).

among firms and establishments ('in situ' changes). The relative importance of these dimensions of change provides useful insights into the vigour and vitality of new business formation and new employment creation, both of which are significant ingredients of a healthy and robust economy that is adapting to evolving circumstances. The appendix provides further detail on how we compile information from administrative data about each component.

Framing the analysis of economic and employment dynamics through a components of change approach has a long history. The technique became popular in the disciplines of economic geography and urban and regional studies in Europe and the US during the 1970s and 1980s (Bishop and Simpson, 1972; O'Farrell, 1984; Dicken and Lloyd, 1978; Fothergill and Gudgin, 1982; Eberts and Montgomery, 1994). It was partly a reaction to major shifts in the location of industry and employment in these countries at the time. Similar techniques of disaggregation have been used in other disciplines, such as population and migration analysis (Warren and Warren, 2013).

An important achievement of this research was to demonstrate the significant contribution made by new firms to aggregate job creation (Birch, 1979; Cross, 1981; Storey, 1981). However, the approach was also criticised for its descriptive character and limited explanations for the economic outcomes that were revealed (Taylor, 1984). Although components of change can provide valuable empirical insights by looking below the surface of aggregate trends, it says little about the underlying forces and causal mechanisms at work, including changes in the internal structure and strategies of firms, shifts in markets and in the costs and risks of operating in different places, and the restructuring of industries of which firms form a part. Bearing this in mind, original evidence about the changing patterns of firms and jobs can still call into question popular assumptions, and provide important clues as to where to investigate further. The quality and the coverage of the economic data available in many countries has also improved since then, allowing richer and more diverse insights into the nature of economic and employment shifts among firms and establishments.

3.3 Defining establishment flows

For the purposes of this study, establishment entries (E^+) are defined as the sum of all new establishments from either firm births (E_{FB}) and branch openings (E_{BO}):

$$E^+ = E_{FB} + E_{BO}$$

Similarly, establishment exits (E^-) are defined as the sum of all existing establishments either from firm deaths (E_{FD}) or branch closures (E_{BC}):

$$E^- = E_{FD} + E_{BC}$$

Establishment turnover (ET_t) then captures the absolute change in establishments (e) over time period (t), calculated as the sum of establishment entry and exist over the period:

$$ET_t = E_{et}^+ + E_{et}^-$$

Similarly, establishment net growth can then be determined by calculating the difference in establishment entry and exist over the period.

$$EG_t = E_{et}^+ - E_{et}^-$$

These formulae calculate the total number of establishments in each category. In addition, they can be converted into rates of change by reporting against the total number of establishments in each tax year.

3.4 Defining job flows

The entry and exit of establishments are directly linked to changes in the job market, particularly in terms of job creation and destruction. Together with in-situ employment changes, establishment turnover can be analysed through the following set of job flow metrics: Hires (\bar{H}) are defined as the sum of hiring attributed to new establishments from firm births (H_{FB}), hiring attributed to new branch openings (H_{BO}) and hiring attributed to in situ hiring (H_{IH})

$$\bar{H} = H_{FB} + H_{BO} + H_{IH}$$

Fires (\bar{F}) are defined as the sum of fires (or any type of job loss such as resignations, retirements or retrenchments) attributed to establishment exits from firm deaths (F_{FD}), fires attributed to branch closures (F_{BC}) and fires attributed to in situ fires (F_{IS}).

$$\bar{F} = F_{FD} + F_{BC} + F_{IS}$$

Hires (i.e. job gains) and fires (i.e. job losses) can then be used to define job creation and job destruction in each establishment. Where JC_t and JD_t are the job creation and destruction within time period (t) in establishment (i). These are summed only for establishments where the net change in employment is positive (N^+) or negative (N^-) respectively.

$$JC_t = \sum_{i \in N^+} \bar{H}_{it} - \bar{F}_{it}$$

$$JD_t = \sum_{i \in N^-} \bar{H}_{it} - \bar{F}_{it}$$

Job reallocation (JR_t) can then be determined for the corresponding time (t) by calculating the sum of job creation and destruction for time (t) respectively.

$$JR_t = JC_t + JD_t$$

The net job growth (JG_t) similarly can be determined by calculating the difference in job creation and destruction for time (t) respectively.

$$JG_t = JC_t - JD_t$$

All of these metrics are calculated in absolute terms, but are presented as rates when reported relative to total employment. We calculate these indicators over the period of a tax year which adjusts for seasonal variance in employment.

4. Findings

4.1 Business turnover in South Africa

We first present the results of business turnover in South Africa in a comparative perspective drawing on international benchmarks as published by the Organisation for Economic Co-operation and Development (OECD). The OECD reports on firm birth, death and turnover rates for a database of 39 countries. These are only available at the firm-level, which requires converting our branch-level estimates to the firm level.

Table 1: Firm birth, death and turnover rates as reported by the OECD (as a percentage of all employer enterprises)

Country	Firm birth rate (a)	Firm death rate (b)	Net firm growth rate (a – b)	Firm turnover rate (a + b)	Country	Firm birth rate (a)	Firm death rate (b)	Net firm growth rate (a – b)	Firm turnover rate (a + b)	Country	Firm birth rate (a)	Firm death rate (b)	Net firm growth rate (a – b)	Firm turnover rate (a + b)
Austria	8.8	7.5	1.3	16.3	Germany	7.8	7.8	0.0	15.6	Netherlands	10.0	9.7	0.3	19.7
Belgium	3.6	0.9	2.7	4.5	Greece	10.9	3.3	7.6	14.2	New Zealand	11.6	10.3	1.3	21.9
Brazil*	14.0	11.3	2.7	25.3	Hungary	15.1	12.8	2.3	28.0	Norway	9.1	7.2	1.9	16.3
Bulgaria*	11.3	10.6	0.7	21.9	Iceland	15.2	12.5	2.7	27.6	Poland	15.0	13.2	1.8	28.2
Canada	8.5	8.2	0.3	16.6	Ireland	4.0	2.8	1.2	6.8	Portugal	9.2	9.5	-0.3	18.7
Colombia	16.4	12.3	4.1	28.7	Israel	12.3	10.4	1.9	22.7	Romania*	10.0	9.4	0.6	19.4
Croatia*	12.0	11.0	1.0	23.0	Italy	9.1	8.8	0.3	17.9	Slovak Rep.	11.1	12.8	-1.7	23.9
Cyprus*	5.7	2.1	3.6	7.8	Japan	4.7	3.8	0.9	8.5	Slovenia	9.7	9.2	0.5	18.8
Czechia	9.3	9.5	-0.2	18.8	Korea, Rep.	16.0	10.6	5.4	26.7	Spain	9.9	10.8	-0.9	20.7
Denmark	12.1	7.0	5.1	19.0	Latvia	11.7	6.4	5.3	18.2	Sweden	10.0	10.2	-0.2	20.2
Estonia	12.0	11.3	0.7	23.3	Lithuania	9.9	8.2	1.7	18.1	Switzerland	5.1	4.5	0.6	9.6
Finland	11.1	14.3	-3.2	25.4	Luxembourg	9.7	7.8	1.9	17.6	Türkiye	14.6	11.2	3.4	25.8
France	11.5	11.2	0.3	22.7	Malta*	11.9	8.3	3.6	20.2	United Kingdom	14.7	10.7	4.0	25.3
										South Africa**	11.0	7.3	3.7	18.3
										AVERAGE	10.6	8.9	1.7	19.6

Notes: *countries which are not OECD members

**authors' own estimates from NT-SDF averaged over the tax year period 2014-15 to 2019-20

We use the latest year available in the OECD database prior to 2020

Source: Structural and Demographic Business Statistics (SDBS), OECD

South African levels of business churn appear to be broadly comparable to OECD levels (table 1). The national firm birth rate is 11% per annum, meaning that about 1 in 9 firms are new entrants in any particular year. This is very close to the OECD average firm birth rate of 10.6% although countries such as Colombia, Poland and Hungary have levels as high as 15%.

Meanwhile, the firm death rate for South Africa is relatively low at 7.3% per annum which means that the stock of firms in South Africa is increasing by about 3.7% each year (subtracting firm death from births). In fact, the net increase in new businesses is noticeably higher in South Africa than the OECD average of 1.7% per annum. Overall, the firm turnover rate (adding firm births and deaths) in South Africa is significant at approximately 18.3% per annum. This suggests that economic stagnation is not mainly attributable to a lack of firm entry and exit, as argued by some observers (e.g. World Bank, 2024a).

Tables 2 and 3 (and corresponding figure 1) examine business churn in South Africa in greater detail. Metrics are reported at the level of business sites or branches. Branch-level reporting is crucial for distinguishing different changes happening simultaneously with multi-location firms, i.e. expansion in some places and contraction in others, and differentiating between complete business closures and partial downsizing (Sadeghi et al, 2016). It also allows for a more precise analysis of employment impacts, particularly in sectors where firms operate across multiple locations (Haltiwanger, 2011).

Moving from the firm to branch level reaffirms the significance of business churn. The turnover rate (establishment entry + establishment exit) is as high as 32.5% per annum looking at the period 2014/15 to 2019/20. In other words, approximately 1 in every 3 South African business establishments experienced a change each year– either opening or closing as a branch or experiencing a firm birth or death. The scale of establishment reorganisation and reshuffling is substantial and indicative – at first sight – of a dynamic economy.

Table 2: Total establishment flows

	Establish. entry (a)	% contr. to establish. Entry	Establish. exit (b)	% contr. to establish. exit	Net change (a – b)	% contr. to total
2014/15 – 2019/20 (Pre-Covid): Annualised						
Firm births or deaths	37,460	48.9%	26,941	43.4%	10,519	72.0%
Branch openings or closures	39,209	51.1%	35,114	56.6%	4,095	28.0%
Total change	76,669	100.0%	62,055	100.0%	14,614	100.0%
2020/21 – 2021/22 (Covid): Annualised						
Firm births or deaths	39,148	52.2%	54,677	60.6%	-15,530	101.6%
Branch openings or closures	35,817	47.8%	35,565	39.4%	252	(1.6%)
Total change	74,964	100.0%	90,242	100.0%	-15,278	100.0%

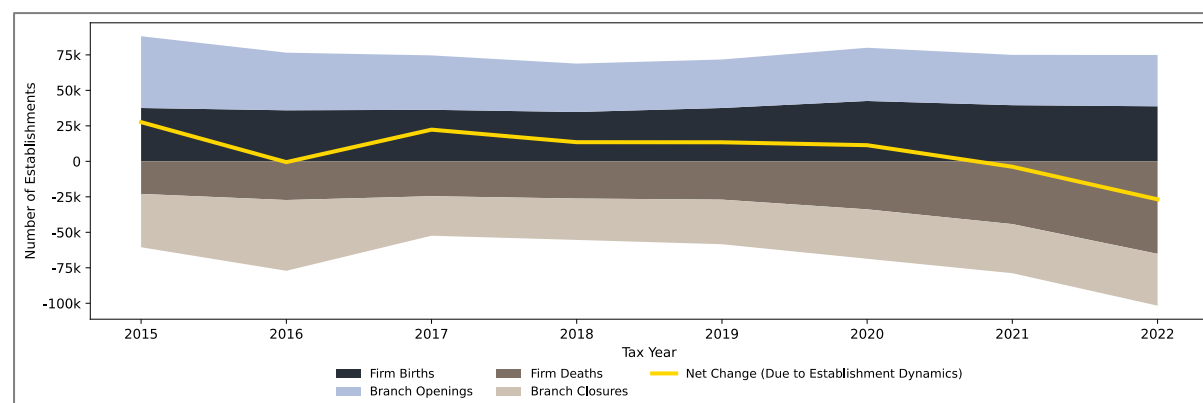
Source: authors' own estimates from tax records available in the NT-SDF

Table 3: Establishment formation rates (as a percentage of total establishments)

2014/15 – 2019/20 (Pre-Covid): Annualised					
Establishment entry		Establishment exit		Overall impact	
Firm birth rate (a)	8.8%	Firm death rate (d)	6.3%	Turnover rate (g=c+f)	32.5%
Branch opening rate (b)	9.2%	Branch closure rate (e)	8.2%	Net growth rate (h=c-f)	3.4%
Total entry rate (c=a+b)	18.0%	Total exit rate (f=d+e)	14.5%		
2020/21 – 2021/22 (Covid): Annualised					
Establishment entry		Establishment exit		Overall impact	
Firm birth rate (a)	8.2%	Firm death rate (d)	11.4%	Turnover rate (g=c+f)	34.4%
Branch opening rate (b)	7.5%	Branch closure rate (e)	7.4%	Net growth rate (h=c-f)	(3.2%)
Total entry rate (c=a+b)	15.6%	Total exit rate (f=d+e)	18.8%		

Source: authors' own estimates from tax records available in the NT-SDF

Figure 1: Business unit formation, 2014/15 – 2021/22



Source: authors' own estimates from tax records available in the NT-SDF

A large part of this business dynamism is driven at the establishment level, in addition to the enterprise level. In fact, the number of new establishments created (and destroyed) through

branch openings (and closures) is slightly higher than those created by firm births (and deaths). This indicates that the activities of larger established firms, via branch openings and closures, are a major feature of competition in domestic markets. Branch-level changes are likely to be more important in countries with high market concentration ratios, such as South Africa, although comparative international data is not available to verify this.

It is also important to gauge the net impact of establishment entry (whether new establishments from firm births or branch openings) and establishment exits (whether closed establishments from firm deaths or branch closures) which determines the change in the total stock of establishments. Overall, the total stock of establishments increased at a rate of 3.4% per year. Interestingly, the net contribution from branch-level changes (openings minus closures) made up only 28% of all new establishments compared with 72% from firm-level changes (births minus deaths). This is because the number of new branches from openings tended to cancel out closures. The message is that growth over time in the total stock of business establishments is nearly three times more likely to come from new firms (i.e. firm births minus deaths) than from existing firms (i.e. branch openings minus closures).

Another important message is that COVID-19 had a large negative impact on the stock of businesses. While not the main focus of this paper, it is clear that business dynamics changed dramatically with the onset of the pandemic in 2020/21. In particular, the total stock of establishments declined 3.2% that year. This was driven by a spike in the number of firm deaths, with twice as many firms closing than before. Interestingly, the number of firm births was not significantly impacted by COVID-19, while both branch-level closures and openings slowed down. The net impact of branch-level changes is neutral because roughly the same number of branches opened as closed. In other words, existing firms with multiple branches proved more resilient than independent firms, which are probably smaller and more vulnerable.

In summary, COVID-19 caused many firms to shut down, while it simultaneously depressed branch openings and closures. The net effect was a decline in the total number of establishments. There was no sign of recovery in 2021/22, which is the most recent period for which valid data is available.

4.2 Jobs flows in South Africa

Turnover in business operations has a direct impact on the labour market. The creation of new establishments, whether from firm births or branch openings, creates jobs. By contrast, the destruction of establishments, whether in the form of firm deaths or branch closures, destroys jobs. These can be added to job changes from firms that are already open and operational, in other words, in-situ changes. In this way, total job creation and destruction is the result of firm-level changes (births vs deaths), branch-level changes (openings vs closures), and in-situ changes (hires vs fires).

We first report comparative rates of job creation and destruction as published by the OECD (table 4). South Africa's level of job creation from firm births was 2.2% per annum which is slightly below the OECD average of 2.8%. Similarly, the level of job destruction from firm deaths was 2.1% per annum which is also slightly below the OECD average of 2.5%. Hence, South Africa's job turnover from firm births and deaths is unexceptional and of a similar level to other OECD countries. Unfortunately, the OECD database does not report on job flows from in-situ hires and fires which is needed to calculate the total level of job reallocation.

Tables 5 and 6 (and corresponding figure 2) provide more detail on job churn in South Africa reported at the branch level. The job reallocation rate is 23.9% which means that almost a quarter of jobs are reshuffled between firms in any year. This rate of job reallocation is slightly higher than Kerr's (2014; 2018) estimates for South Africa and on par with other international studies.⁸ This offers further evidence of alignment with Kerr that the South African labour market is not as functionally rigid, or characterised by as much inertia, as sometimes perceived.

⁸ Davis et al (1996) estimates job reallocation rates of around 19% for a panel of U.S. manufacturing plants operating during the 1970s and 1980s. A more recent cross-country study by Haltiwanger et al (2008), covering 16 countries, reports job reallocation rates of approximately 25%, 29%, and 30% for OECD, transition, and Latin American regions, respectively. Kerr et al (2014) provide a useful summary of job reallocation rates in sub-Saharan Africa, reporting figures of between 28% and 30%, including in countries like Ivory Coast, Ghana, and Ethiopia. Unfortunately, direct comparisons are complicated by subtle differences in measurement, such as sector choice (often limited to manufacturing), coverage of smaller firms (which tend to be undercounted), and whether plant or branch level dynamics are included.

Table 4: Job creation from firm births, job destruction from firm deaths and job reallocation rates as reported by OECD (as a percentage of total employment)

Country	Job creation from firm births (a)	Job destruction from firm deaths (b)	Country	Job creation from firm births (a)	Job destruction from firm deaths (b)	Country	Job creation from firm births (a)	Job destruction from firm deaths (b)
Austria	2.3	1.9	Germany	1.3	1.4	Netherlands	2.8	3.0
Belgium	0.8	0.2	Greece	5.1	1.6	New Zealand	3.1	3.0
Brazil*	4.6	3.8	Hungary	4.6	4.6	Norway	1.8	1.9
Bulgaria*	3.0	3.0	Iceland	3.0	3.3	Poland	3.6	3.1
Canada	-	-	Ireland	1.0	0.8	Portugal	2.7	3.5
Colombia	5.3	4.8	Israel	-	-	Romania*	2.9	2.3
Croatia*	3.4	2.7	Italy	2.4	2.4	Slovak Rep.	3.0	3.5
Cyprus*	1.8	0.5	Japan	1.6	1.5	Slovenia	1.9	1.9
Czechia	1.7	1.7	Korea, Rep.	5.3	3.3	Spain	3.4	4.0
Denmark	1.7	1.8	Latvia	3.2	2.0	Sweden	1.9	2.3
Estonia	2.8	3.4	Lithuania	2.3	2.1	Switzerland	0.8	0.7
Finland	3.3	4.1	Luxembourg	1.8	1.4	Türkiye	5.2	3.7
France	3.1	3.6	Malta*	3.8	2.5	United Kingdom	3.7	3.1
						South Africa**	2.2	2.1
						AVERAGE	2.8	2.5

Notes: *countries which are not OECD members

**authors' own estimates from NT-SDF averaged over the tax year period 2014-15 to 2019-20

We use the latest year available in the OECD database prior to 2020

Source: Structural and Demographic Business Statistics (SDBS), OECD

Looking more closely at Table 5, we can evaluate the contribution of each component of business change to the flow of jobs. In-situ changes make up the lion's share of both job gains and losses in each year prior to COVID-19, at more than 70%. Job creation (or destruction) from firm births (or deaths) accounts for roughly 18%, while the contribution from branch openings (or closures) is around 10%. So changes in the number of jobs within existing firms are the main driver of job creation and destruction, rather than business formation. This is the case in empirical studies of other countries (Haltiwanger, 2011; Haltiwanger et al, 2014).

Bearing this in mind, we can also consider how each component contributed to the total stock of jobs by focusing on the net effects. This is critical because official labour market statistics routinely report on the total number of jobs in the economy, implicitly neglecting the absolute level of job creation and job destruction within a given period. To do so, we subtract jobs destroyed in firm deaths from jobs created in births; jobs destroyed through branch closures from jobs created through branch openings; and jobs lost from in-situ fires against jobs gained through new hires. All in all, total employment increased by roughly 105,000 per annum during the period 2014/15 – 2019/20. Interestingly 55.2% of these jobs were generated by branch openings (in excess of closures), followed by in-situ job creation at 42% (hires in excess of fires), leaving only a very small share of jobs from growth in new independent firms (births in excess of deaths), at 2.8%. In other words, new firm formation was not a tool for job creation because job gains from firm births are cancelled out by job losses from firm deaths. The activities of established businesses, either through branch openings or in-situ job creation, accounted for the bulk of job growth.

COVID-19 had a major impact on these labour market dynamics, with a loss of over 100,000 jobs per annum in 2020/21 to 2021/22. Interestingly, the biggest contribution to job loss was through firm deaths of 308,000 per annum against jobs gained from firm births at about 180,000. There was a rise in the number of jobs lost through firm deaths of almost 40% compared with the pre-Covid period, as well as a fall in the number of jobs created from firm births of about 20%. By contrast, in-situ jobs growth remained net positive in the Covid period (after deducting fires from hires), while job growth from branch changes (deducting closures from openings) was only slightly negative. Hence it was the sharp increase in firm deaths (and to a lesser extent, fewer births) that mostly accounted for the Covid-related downturn, with some of the labour force being absorbed into existing firms through in-situ hires. A closer review of the time series data in figure 2 suggests that most of these jobs losses occur in

2020/21 with jobs flatlining in 2021/22. The slowdown in job losses in 2021/22 is mainly because of an increase in-situ hires, suggesting a large portion of workforce who lost jobs were absorbed into existing firms, while at the same time the number of fires contracted. On the other hand, job losses from firm deaths continued and even accelerated by the end of the period, pointing again to the significance of firm deaths in shaping labour market outcomes over the pandemic.

Table 5: Total national job flows

	Job creation (a)	% contr. to job creation	Job destr. (b)	% contr. to job destr.	Net change (a - b)	% contr. to total
2014/15 – 2019/20 (Pre-Covid): Annualised						
Firm births or deaths	226,761	17.3%	223,730	18.6%	3,031	2.8%
Branch openings or closures	152,902	11.7%	92,813	7.7%	60,089	55.2%
In-situ hires or fires	931,457	71.0%	885,802	73.7%	45,655	42.0%
Total change	1,311,120	100.0%	1,202,345	100.0%	108,775	100.0%
2020/21 – 2021/22 (Covid): Annualised						
Firm births or deaths	178,826	14.0%	308,021	22.3%	(129,195)	125.5%
Branch openings or closures	111,772	8.7%	118,617	8.6%	(6,846)	6.7%
In-situ hires or fires	990,011	77.3%	956,884	69.2%	33,128	(32.2%)
Total change	1,280,609	100.0%	1,383,522	100.0%	(102,913)	100.0%

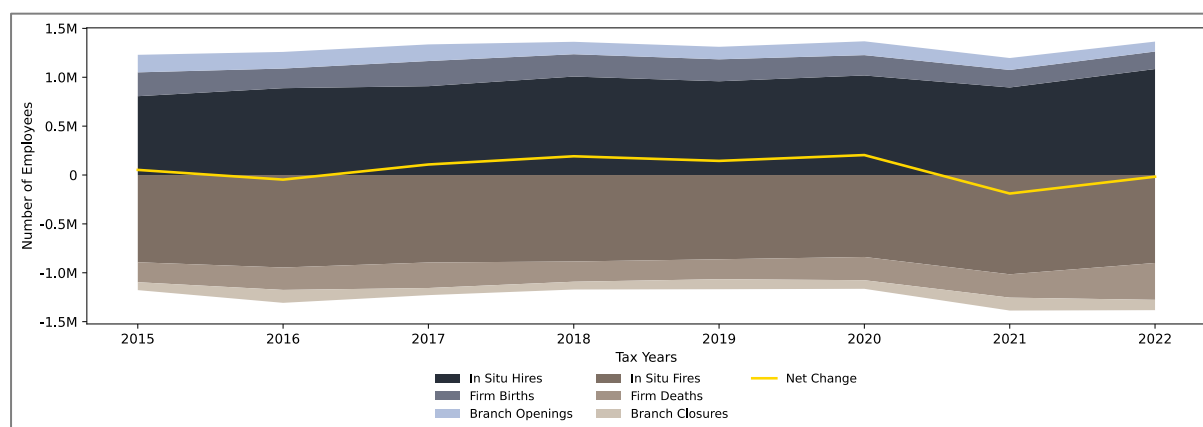
Source: authors' own estimates from tax records available in the NT-SDF

Table 6: Job creation, destruction and reallocation rates (as a percentage of total employment)

2014/15 – 2019/20 (Pre-Covid): Annualised					
Job creation		Job destruction		Overall impact	
Firm birth rate (a)	2.2%	Firm death rate (e)	2.1%	Reallocation rate (i=d+h)	23.9%
Branch opening rate (b)	1.5%	Branch closure rate (f)	0.9%	Net job growth rate (j=d-h)	1.0%
In-situ hires rates (c)	8.9%	In-situ fires rates (g)	8.4%		
Job creation rate (d= a+b+c)	12.5%	Job destruction rate (h=e+f+g)	11.4%		
2020/21 – 2021/22 (Covid): Annualised					
Job creation		Job destruction		Overall impact	
Firm birth rate (a)	1.7%	Firm death rate (e)	2.9%	Reallocation rate (i=d+h)	24.7%
Branch opening rate (b)	1.0%	Branch closure rate (f)	1.1%	Net job growth rate (j=d-h)	-1.0%
In-situ hires rates (c)	9.2%	In-situ fires rates (g)	8.9%		
Job creation rate (d= a+b+c)	11.9%	Job destruction rate (h=e+f+g)	12.8%		

Source: authors' own estimates from tax records available in the NT-SDF

Figure 2: National level job flows, 2014/15 – 2021/22



Source: authors' own estimates from tax records available in the NT-SDF

4.3 Job flows and business change by industry sector

We further investigate the role of industry sector in influencing business dynamics and job flows, recognizing that different sectors exhibit distinct patterns of entrepreneurial activity and employment dynamics. This is because they vary in terms of their capital and labour intensity, the level of competition or protection from global markets, the influence of new technologies and the extent of government regulation, along with several other variables. These industry-specific factors provide clues as to why and how sectoral differences contribute to variations in firm behaviour and labour market outcomes (see table 7 and corresponding figure 3).

The first observation is that three of the 18 industries stand out for their relatively high level of job creation – wholesale and retail, administrative services and manufacturing. However, the latter two sectors also shed almost as many jobs as they created. Consequently, they are not very important in terms of their net contribution to jobs (see net impact in the table). Wholesale and retail stands out for its relatively large net effect on jobs, followed by agriculture. Wholesale and retail are non-tradeable and have little impact on aggregate productivity. The largest net job losses were in the mining industry, which has been shedding jobs for many years, yet still dominates South African exports.

We next turn to job reallocation, which is a measure of overall labour market fluidity. Five of the 18 sectors have a reallocation rate in excess of 30%, including Construction, Other, Administrative services, ICT and Accommodation and food services, with Professional services just below this threshold. These sectors tend to be quite labour intensive, so disproportionate shifts in employment may be expected. The skills profile of this group is

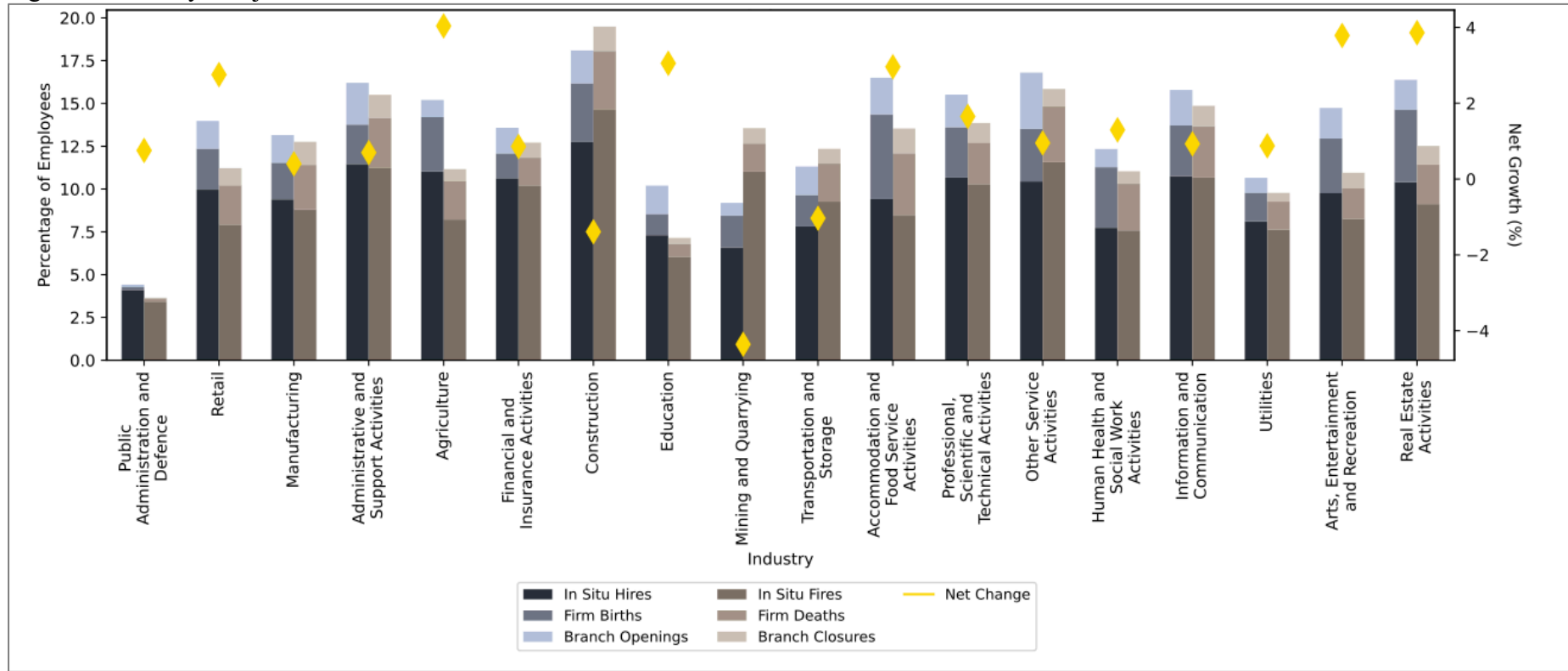
diverse, contrasting high-end Professional services and ICT with lower-skill Construction and Administrative services. Construction is notorious for intermittent work, reflecting the temporary nature of most building projects. Many contracts in the hospitality industry (accommodation and food services) are also discontinuous and seasonal.

Table 7: Industry and job flows, 2014/15 – 2019/20

	AGRICULTURE	MINING & QUARRYING	MANUFACTURING	UTILITIES	CONSTRUCTION	WHOLESALE & RETAIL	TRANSPORTATION AND STORAGE	ACCOMMODATION & FOOD SERVICES	INFORMATION & COMMUNICATION	FINANCIAL & INSURANCE	REAL ESTATE	PROFESSIONAL SERVICES	ADMINISTRATIVE SERVICES	PUBLIC ADMINISTRATION	EDUCATION	HEALTH & SOCIAL SERVICES	ARTS & ENTERTAINMENT	OTHER
Standard Industrial Classification Code (version 7)	1	2	3	4-5	6	7	8	9	10	11	12	13	14	15	16	17	18	19-21
Job creation (a)	90,952	41,244	169,914	12,602	89,105	200,082	47,424	56,788	41,936	69,699	11,830	56,180	172,716	80,401	45,039	39,892	14,924	58,707
Firm births (% of job creation)	20.9%	20.2%	16.3%	15.6%	18.9%	17.1%	16.2%	30.0%	18.7%	10.6%	25.8%	19.0%	14.2%	3.9%	12.1%	28.7%	21.6%	18.3%
Branch openings (% of job creation)	6.5%	8.1%	12.3%	8.2%	10.6%	11.6%	14.7%	12.9%	13.1%	11.0%	10.6%	12.3%	15.0%	3.0%	16.2%	8.6%	12.1%	19.5%
In-situ hires (% of job creation)	72.5%	71.8%	71.4%	76.1%	70.5%	71.3%	69.1%	57.1%	68.2%	78.4%	63.6%	68.8%	70.8%	93.1%	71.7%	62.7%	66.2%	62.2%
Job destruction (b)	66,778	60,805	164,733	11,565	95,951	160,638	51,754	46,594	39,469	65,282	9,041	50,197	165,272	66,638	31,551	35,694	11,087	55,380
Firm deaths (% of job dest)	20.1%	12.1%	20.3%	16.6%	17.7%	20.5%	18.0%	26.6%	20.3%	13.0%	18.5%	17.8%	19.0%	5.2%	10.6%	24.7%	16.1%	20.5%
Branch closures (% of job dest)	6.3%	6.6%	10.5%	5.2%	7.3%	8.9%	6.9%	10.7%	7.9%	6.9%	8.7%	8.2%	8.6%	1.2%	4.7%	6.6%	8.3%	6.5%
In-situ fires (% of job dest)	73.6%	81.3%	69.1%	78.2%	75.0%	70.6%	75.1%	62.7%	71.8%	80.1%	72.9%	73.9%	72.4%	93.6%	84.7%	68.7%	75.5%	73.0%
Net change (a - b)	24,175	(19,561)	5,180	1,038	(6,846)	39,444	(4,330)	10,194	2,468	4,416	2,789	5,982	7,443	13,764	13,488	4,198	3,837	3,327
Births & deaths (% of net impact)	23.2%	(4.8%)	(112.2%)	5.0%	1.9%	3.4%	37.4%	45.2%	(5.4%)	(23.9%)	49.7%	28.5%	(93.1%)	(2.4%)	15.7%	63.1%	37.5%	(18.1%)
Openings & closures (% of net impact)	7.3%	3.5%	68.5%	41.9%	(36.1%)	22.7%	(77.5%)	23.2%	95.4%	71.1%	16.9%	46.1%	157.8%	11.8%	43.1%	25.5%	23.1%	236.5%
Hires & fires (% of net impact)	69.5%	101.4%	143.7%	53.1%	134.2%	73.9%	140.1%	31.6%	9.9%	52.8%	33.4%	25.4%	35.3%	90.6%	41.2%	11.4%	39.4%	(118.4%)
Job reallocation rate (c+d)	26.4%	22.7%	25.9%	20.4%	37.6%	25.2%	23.7%	30.0%	30.6%	26.3%	28.9%	29.4%	31.7%	8.1%	17.3%	23.4%	25.7%	32.6%
(c) Job creation (% of tot empl)	15.2%	9.2%	13.2%	10.7%	18.1%	14.0%	11.3%	16.5%	15.8%	13.6%	16.4%	15.5%	16.2%	4.4%	10.2%	12.3%	14.7%	16.8%
(d) Job destruction (% of tot empl)	11.2%	13.6%	12.8%	9.8%	19.5%	11.2%	12.3%	13.5%	14.9%	12.7%	12.5%	13.9%	15.5%	3.7%	7.1%	11.0%	10.9%	15.8%
Net job creation (% of tot empl)	4.0%	(4.4%)	0.4%	0.9%	(1.4%)	2.8%	(1.0%)	3.0%	0.9%	0.9%	3.9%	1.7%	0.7%	0.8%	3.1%	1.3%	3.8%	1.0%

Source: authors' own estimates from tax records available in the NT-SDF

Figure 3: Industry and job flows



By contrast, three sectors have a job reallocation rate below 20%, including Utilities, Education and Government. All three relate closely to public services, which makes sense because government entities are inherently stable, unchanging and protected from the vicissitudes of market forces. The Government sector itself has a job reallocation rate of only 8.1%, which is almost three times lower than the industry-wide average of 23.9%. This means that far fewer employees are transferred between different roles, departments, or sectors across government.

In terms of job creation and destruction through firm births and deaths, Accommodation and food services stand out with the highest contributions, reaching 30 and 25% respectively. The hospitality industry is widely known to be a sector with low barriers to entry – it is relatively easy to open a café or restaurant. The net job effects are also positive with almost 45% of net jobs in hospitality generated through firm births exceeding deaths. Interestingly, the same is true of Human health and social work services which has a surprisingly high share of jobs created and destroyed through firm births and deaths. This fluidity might be driven by small private medical practices, but this warrants further investigation.

By contrast, Finance and insurance services have low levels of job creation and destruction through firm births and deaths, at least compared with other sectors. This points to the dominance of large banks and insurance companies in a tightly regulated sector with notoriously high barriers to entry. Public-related services also have very low rates of firm births and deaths. This is expected since government entities seldom open or close operations.

At the establishment-level, job creation through branch opening and job destruction through branch closure are low in sectors such as Agriculture, Mining and Human health and social work. Agriculture and Mining are dependent on natural resources which limits their geographical mobility, while Human health and social work involve practitioner-centric delivery which is probably less suited to franchising. The evidence suggests that establishments within these particular industries tend to operate as separate enterprises in practice.

On the opposite end of the spectrum, sectors such as ICT, Accommodation and food services, Professional services and Administrative services create and destroy a higher share of jobs through the reorganisation of establishments at branch level. To be sure, in-situ hiring and firing is still the predominant mode through which jobs are either created or destroyed (at above 60% in every sector), but the net effects of branch changes are often considerable. For instance,

within ICT, approximately 95% of net growth in employment is through branch openings exceeding closures, compared with only 10% from in-situ changes (these sum to 100% when combined with firm-level changes which reduce employment by 5%). Administrative, Professional and Financial services all have a greater share of jobs created through branch openings than in-situ expansion. The issues of corporate location strategy and economies of scale in different corporate functions (head offices, branches and other specialised functions) warrant further investigation.

A final concern is that the level of churn within sectors does not seem to translate into stronger employment growth. The story of the hospitality sector (accommodation and food services) may be instructive here. Hospitality has particularly high rates of business births and deaths, which have a big impact on the creation and shedding of jobs. In other words, it is a volatile sector with many changes in ownership and rearrangements of activity. However, there are not many net additional jobs created from all the shake-up and turnover of firms. Hospitality created 10,000 net jobs per annum between 2013/14 to 2019/20, which amounted to only 3% of the total stock of jobs in this sector. This modest outcome is somewhat surprising considering the growth of tourism and the increase in consumer borrowing and spending over the same period.

4.4 Jobs flows and business change by geography

Another factor influencing business dynamics and job flows is geography. Spatial disparities in firm activity, employment volatility, and economic resilience illuminate why certain areas experience stronger job growth than others. Geographical factors can influence business access to resources, markets, and infrastructure, leading to spatial disparities in employment growth.

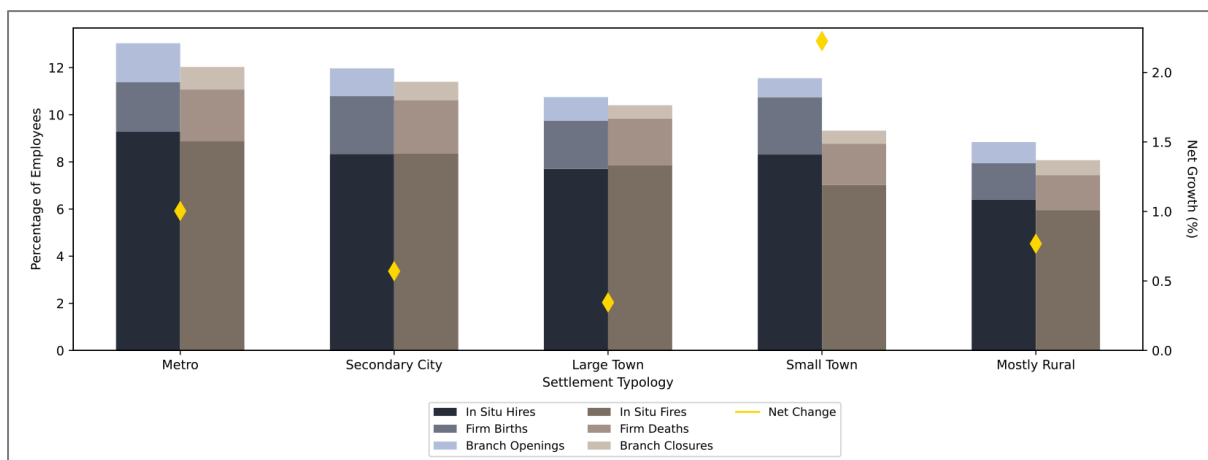
Table 8 and corresponding figure 4 show how different settlement types – ranked by degree of urbanisation from the largest metropolitan municipalities through to mostly rural municipalities – influence job flows. The analysis reveals several important findings.

Table 8: Settlement type and job flows, 2014/15 – 2019/20 (Annualised)

	Metro	Secondary City	Large Town	Small Town	Mostly Rural
Job creation (a)	884,481	171,262	77,210	100,984	51,374
Firm births (% of job creation)	16.2%	20.5%	19.1%	21.1%	17.6%
Branch openings(% of job creation)	12.7%	9.8%	9.3%	7.0%	10.1%
In-situ hires (% of job creation)	71.2%	69.7%	71.7%	72.0%	72.4%
Job destruction (b)	816,374	163,099	74,729	81,527	46,911
Firm deaths (% of job dest)	18.3%	20.0%	19.1%	18.7%	18.4%
Branch closures (% of job dest)	8.0%	6.8%	5.4%	5.9%	7.8%
In-situ fires (% of job dest)	73.8%	73.2%	75.5%	75.4%	73.8%
Net impact (a - b)	68,107	8,163	2,482	19,458	4,463
Births & deaths (% of net impact)	(9.3%)	30.4%	16.6%	31.0%	8.6%
Open & closures(% of net impact)	69.1%	71.2%	125.7%	11.4%	33.6%
Hires & fires (% of net impact)	40.2%	(1.7%)	(42.4%)	57.6%	57.9%
Job reallocation rate (c+d)	25.1%	23.4%	21.2%	20.9%	16.9%
(c) Job creation (% of tot empl)	13.0%	12.0%	10.7%	11.6%	8.8%
(d) Job destruction (% of tot empl)	12.0%	11.4%	10.4%	9.3%	8.1%
Net job creation (% of tot empl)	1.0%	0.6%	0.3%	2.2%	0.8%

Source: authors' own estimates from tax records available in the NT-SDF

Figure 4: Settlement type and job flows, 2014/15 – 2019/20



A strong positive association is found between urbanization and labour market fluidity. Job reallocation rates —representing the sum of job creation and destruction— serve as a useful measure of economic dynamism in each region. Metropolitan areas emerge as the most dynamic, with a job reallocation rate of 25.1%, closely followed by secondary cities at 23.4%. In contrast, large and small towns show rates closer to 20%, while rural municipalities have the lowest reallocation rate of 16.9%. This pattern supports the idea that larger cities tend to have the most changeable and vibrant business environments.

Interestingly, this dynamism in metropolitan areas does not translate into higher rates of job creation through firm births. Metros, despite higher levels of economic activity, have the lowest rates of job creation through firm births of any settlement type at 16.2% (even lower than mostly rural municipalities). Jobs lost from firm deaths also outstrip jobs gained from new firm creation, resulting in a net *negative* contribution to total new jobs at nearly 10%. By contrast, secondary cities and small town municipalities create considerably more jobs from firm births than firm deaths, and this positive net effect is responsible for around 30% of all new jobs in these regions. This evidence suggests that metropolitan areas do not function as effective 'nurseries' for firm births. In fact, they seem to function more like 'graveyards' for independent firms. A caveat is that the sheer size of the metros still means that there were many more new jobs from firm births than anywhere else. However we would expect them to perform better as incubators in absolute *and relative* terms. Further research should focus on understanding what is driving the chronic underperformance in the metros.

A closer look at table 8 suggests that the dynamism of the metros is mostly linked to branch openings and closures, which are noticeably higher than elsewhere. To be sure, in-situ births and deaths consistently make up the bulk of job creation and destruction in the metros at more than 70%, but these cancel each other out when looking at the net effects. In fact, branch-related changes within metros account for as many as 70% of net new jobs in the period compared with 40% from in-situ hiring and firing (note: these components sum to 100% once the -10% contribution from births/deaths is included).

There is considerable variation in the net impact of different components of job change across settlement types with no consistent pattern. For instance, the contribution to net new jobs from in-situ hiring/firing is negative in secondary cities and large towns but positive in small towns and mostly rural municipalities. The instability when examining net job impacts might also reflect the small base within a broader context of low economic and employment growth.

5. Conclusion

This paper seeks to assess the extent of economic and employment change in South Africa over the last decade by looking beneath the surface of total levels and aggregate trends. The conventional wisdom is that the economy lacks internal dynamism. It is believed to be dominated by corporate incumbents and long-established industries, without much

restructuring or rearrangement underway. In a highly contested and rapidly evolving global environment, standing still is a recipe for obsolescence rather than resilience and progress.

In fact, the evidence assembled for the paper shows that the extent of economic change at the level of the firm and the job has been substantial. It is also broadly comparable in magnitude with other countries, at least as far as equivalent information is available. Thus, there are reasonable numbers of business births and deaths. There are also many branch openings and closures by larger firms that own multiple establishments. In addition, there are many workers hired and fired by firms which are expanding or contracting in situ. In short, there is a considerable amount of business reorganisation and labour reallocation. Therefore, it seems wrong to characterise the internal workings of the economy as stagnant, dormant or lifeless.

Yet, this extensive restructuring at the firm and job level has failed to drive broader economic gains. Total jobs growth is only 1% per annum over the period 2013/14 to 2019/20, which is less than population growth. The same problem is mirrored when looking at the performance of the metros. These cities create more jobs in both absolute and relative terms compared with other regions, but they also lose more jobs. So, while metros are more dynamic than other regions (with higher rates of job reallocation), this does not translate into employment growth. In addition, cities do not emerge as strong incubators for new firm formation. In fact, jobs lost from firm deaths outnumber jobs gained from firm births, characterising metros more like graveyards than nurseries.

A closer look at sectoral performance highlights a similar concern. The stand-out sector for employment growth is wholesale and retail, which generated nearly 40,000 net jobs per annum between 2013/14 to 2019/20. However, wholesale and retail cannot be considered an engine of economic growth because it is non-tradable, has relatively low productivity, and low multiplier effects. Consequently, it is more a reflection of consumer spending than a driver of sustained and sustainable growth, and therefore subject to constrained domestic demand with consumers under pressure. Stronger growth in manufacturing, mining, agriculture or tradable services such as professional services, ICT, finance and logistics would have been a more positive sign of economic progress since these producers can tap into much larger, expanding external markets, and thereby spur growth in other parts of the domestic economy through local multipliers. Yet there has been no noticeable diversification of activity into new tradable industries— although the time horizon may be too short to see the sprouting of sizeable new shoots.

The big puzzle is why all these shifts and shake-ups in economic activity have not been accompanied by more substantial economic progress and stronger employment growth. In principle, the process of creative destruction through entry and exit should contribute to higher productivity and economic development as less efficient firms and establishments are replaced by newer investments and more productive operations offering superior products and services. Labour market churn should also improve productivity and employment growth as less efficient workers are replaced by those who are more skilled and capable. In other words, the entry and exit of firms and workers should function as selection mechanisms in the process of competition to improve overall resource allocation and strengthen economic and employment growth.

There could be many underlying reasons why high levels of business entry and exit, and labour reallocation, do not translate into better economic and employment outcomes. It may be that the lack of demand in the economy creates a kind of crowded-platform effect, whereby new entrants displace existing firms because there is only so much spending power available from consumers, other producers and the government to sustain their activity. This would apply if many markets were close to being saturated and so new producers substitute for existing firms without offering any real improvements in products or services. If this is the case, the appropriate policy response may be to stimulate demand using instruments such as lower interest rates or increased public spending. The birth of so many new firms, especially in the context of mass unemployment, suggests that many factors of production could be underutilised and the economy is operating well below full capacity.

Beyond this, it is widely understood that there are deeper structural obstacles to economic growth, such as basic infrastructure deficiencies, inefficient logistics systems, unresponsive public services, cumbersome regulatory frameworks and major governance shortcomings. These economy-wide barriers to growth and investment tend to stifle the generative effects of both business reorganisation and labour turnover. They limit the potential of all firms – new and old, large and small, efficient and inefficient – to grow and prosper. Moreover, excessive economic concentration may stifle competition and discourage innovation, just as protectionist government policies tend to favour incumbents over new entrants (World Bank, 2024b).

Further research is required to investigate in more detail the conundrum of business restructuring being dissociated from employment growth and economic progress. For instance,

it would be useful to directly assess the link between productivity and firm entry and exit. This would help distinguish between routine firm turnover, which reflects a neutral reshuffling among similar businesses, and deeper processes of creative destruction that drive meaningful economic transformation. Part of the puzzle is also to understand why the rates of business and employment growth in the metros is so low. These places and organisations dominate the South African economy, so their underperformance has disproportionate national effects. The challenge of business change in South Africa may be less about the numbers of business births and branch openings, than the ‘quality’ of these new entrants, i.e. the level of investment they embody, the technology adopted, the novelty of their products and services, and the capabilities of their management and workforce.

References

- BARTELSMAN, E., HALTIWANGER, J. and SCARPETTA, S. (2004). Microeconomic evidence of creative destruction in industrial and developing countries. *Policy Research Working Paper Series*, 3464, The World Bank.
- BARTELSMAN, E., HALTIWANGER, J. and SCARPETTA, S. (2011). Cross-country differences in productivity: the role of allocative efficiency. *NBER Working Paper*, 15490.
- BIRCH, D.L. (1979). *The job generation process — full report*. Cambridge, MA: MIT.
- BISHOP, K.C. and SIMPSON, C.E. (1972). Components of change analysis: problems of alternative approaches to industrial structure. *Regional Studies*, 6, pp.59–68.
- CROSS, M. (1981). *New firm formation and regional development*. Farnborough: Gower.
- DAVIS, S., HALTIWANGER, J. and SCHUH, S. (1996). *Job creation and destruction*. Cambridge, MA: MIT Press.
- DECKER, R.A., HALTIWANGER, J., JARMIN, R.S. and MIRANDA, J. (2020). Changing business dynamism and productivity: shocks versus responsiveness. *American Economic Review*, 110(12), pp.3952–3990. <https://doi.org/10.1257/aer.20190680>
- DICKEN, P. and LLOYD, P.E. (1978). Inner metropolitan industrial change, enterprise structures and policy issues: case studies of Manchester and Merseyside. *Regional Studies*, 12, pp.181-198.
- DURANTON, G. and PUGA, D. (2001). Nursery cities: urban diversity, process innovation, and the life cycle of products. *American Economic Review*, 91(5), pp.1454–1477.
- EBERTS, R. and MONTGOMERY, E. (1994). Employment creation and destruction: an analytical review. *Federal Reserve Bank of Cleveland, Economic Review*, 30(3), pp.14-26.
- EBRAHIM, A. and CASSIM, A. (2021). Building tax data for research: the South African experience. *SA-TIED Background Note*, 1. United Nations University World Institute for Development Economics Research (UNU-WIDER). <https://doi.org/10.35188/UNU-WIDER/WBN/2021-2>

- EBRAHIM, A., and AXELSON, C. (2019). The creation of an individual level panel using administrative tax microdata in South Africa. *United Nations University World Institute for Development Economics Research*; WIDER Working Paper 2019/27. <https://doi.org/10.35188/UNU-WIDER/2019/661-6>
- EBRAHIM, A., KREUSER, C.F. and KILUMELUME, M. (2021). The guide to the CIT-IRP5 panel version 4.0. *United Nations University World Institute for Development Economics Research*; WIDER Working Paper 173/2021. <https://doi.org/10.35188/UNU-WIDER/2021/113-6>
- FOTHERGILL, S. and GUDGIN, G. (1982). *Unequal growth: urban and regional employment change in the UK*. London: Heinemann.
- FOURIE, F. (2018). *The South African informal sector: creating jobs, reducing poverty*. Cape Town: HSRC Press.
- GLAESER, E.L., KERR, W.R. and PONZETTO, G.A.M. (2010). Clusters of entrepreneurship. *Journal of Urban Economics*, 67(1), pp.150–168.
- HALTIWANGER, J. (2011). Firm dynamics and productivity growth. *European Investment Bank Papers*, 16, pp.116–136.
- HALTIWANGER, J., SCARPETTA, S. and SCHWEIGER, H. (2014). Cross-country differences in job reallocation: the role of industry, firm size and regulations. *Labour Economics*, 26, pp.11–25. <https://doi.org/10.1016/j.labeco.2013.10.001>
- KERR, A. (2018). Job flows, worker flows and churning in South Africa. *South African Journal of Economics*, 86, pp.141–166. <https://doi.org/10.1111/saje.12168>
- KERR, A., WITTENBERG, M. and ARROW, J. (2014). Job creation and destruction in South Africa. *South African Journal of Economics*, 82(1), pp.1–18. <https://doi.org/10.1111/saje.12031>
- MONDLIWA, P. and ROBERTS, S. (2021). Corporate structure, industrial development and structural change in South Africa. In Oqubay, A., Tregenna, F. and Valodia, I. (eds.) *The Oxford handbook of the South African economy*. Oxford: Oxford University Press, pp.xx–xx.
- NDUBUISI, G. and OWUSU, S. (2023). Global value chains, job creation and job destruction among firms in South Africa. *STEG Working Paper*, WP073.
- NEUMARK, D., WALL, B. and ZHANG, J. (2011). Do small businesses create more jobs? New evidence for the United States from the National Establishment Time Series. *Review of Economics and Statistics*, 93(1), pp.16–29. https://doi.org/10.1162/rest_a_00060
- O'FARRELL, P. (1984). Components of manufacturing employment change in Ireland 1973-1981. *Urban Studies*, 21(2), pp.155–176. <https://doi.org/10.1080/00420988420080321>
- OQUBAY, A., TREGENNA, F. and VALODIA, I. (2021). *The Oxford handbook of the South African economy*. Oxford: Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780192894199.013.9>
- PICOT, G. (1997). Job creation and destruction. *Review of Income and Wealth*, 43(2), pp.253-260.
- PIETERSE, D., GAVIN, E. and KREUSER, C.F. (2017). Introduction to the South African Revenue Service and National Treasury Firm-Level Panel. *South African Journal of Economics*, 86, pp.6–39. <https://doi.org/10.1111/saje.12156>
- SADEGHI, A., TALAN, D. and CLAYTON, R. (2016). Establishment, firm, or enterprise: does the unit of analysis matter? *Monthly Labor Review*. <https://doi.org/10.21916/mlr.2016.51>

SCHUMPETER, J.A. (1942). *Capitalism, socialism, and democracy*. New York: Harper and Brothers.

STOREY, D. (1981). New firm formation, employment changes and the small firm: the case of Cleveland County. *Urban Studies*, 18, pp.335-345.

TAYLOR, M. (1984). Industrial geography. *Progress in Human Geography*, 8(2), pp.263–274. <https://doi.org/10.1177/030913258400800206>

WARREN, R. and WARREN, J. (2013). Unauthorized immigration to the United States: annual estimates and components of change, by state, 1990 to 2010. *International Migration Review*, 47(2), pp.296–329. <https://journals.sagepub.com/doi/10.1111/imre.12022>

WIT, G. DE and KOK, J. DE. (2014). Do small businesses create more jobs? New evidence for Europe. *Small Business Economics*, 42(2), pp.283–295. <https://doi.org/10.1007/s11187-013-9480-1>

WORLD BANK. (2024a) *Driving Inclusive Growth: Injecting Dynamism into the Private Sector*. Washington, DC: World Bank.

WORLD BANK. (2024b). *World Development Report 2024: The Middle-Income Trap*. Washington, DC: World Bank. doi:10.1596/978-1-4648-2078-6