Non-competition goals and their impact on South African merger control: An empirical analysis

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Abstract

Merger control regimes in various jurisdictions, especially in Africa, feature non-competition objectives in addition to conventional goals, such as the maintenance or promotion of competition. Such 'public interest' objectives, including the promotion of employment, small business and particular industries, create special challenges for competition authorities. Furthermore, the broad definition of, and complexity associated with, non-competition objectives may increase uncertainty about merger control. We study the systematic impact of public interest concerns on South African merger decisions, in terms of duration of adjudication and consistency over time. Our results suggest that the adjudication of mergers featuring public interest concerns take longer. More importantly, these cases have a higher probability of having conditions imposed for approval and this has been increasing steadily over the past decade. This indicates more aggressive merger control and raises policy questions about the consistency, and hence predictability, of South African merger decisions.

Keywords— mergers, public interest, South Africa

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1   Introduction

The inclusion of non-competition — or "public interest" — goals in merger control has gained traction in several competition jurisdictions. Such goals are particularly popular in developing countries, several of which have introduced antitrust legislation over the past twenty years. Yet non-competition objectives in merger control raise concerns, inter alia, about the predictability of merger adjudication. This paper evaluates these concerns in the context of South African merger control, a jurisdiction that assigns a particularly salient role to public interest considerations in merger review.

Following the end of Apartheid, public interest considerations were embedded in the new South African merger control regime. The aim was to use competition policy – and merger control in particular – to help address deep social concerns surrounding unemployment and inequality. Opponents have argued that including public interest considerations in South African competition policy may deter efficiency-enhancing mergers, economic growth and employment creation. Furthermore, and of concern for this study, opponents have argued that public interest considerations in merger control may increase substantive and procedural uncertainty (OECD, 2016). The critics argue that, the broad nature of public interest concerns may both increase costs of merger assessment and create room for shifting interpretation (and possibly undue interference) over time.

This paper aims to assess South African merger control by firstly studying the duration of merger adjudication for cases involving public interest concerns. The duration of merger adjudication is of critical concern to investors and merging parties and we show that the presence of public interest concerns in a merger case may double the duration of adjudication. Secondly, the paper investigates the probability of a merger receiving only conditional approval if it involves public interest concerns. As shown later, South African competition authorities appear to have turned increasingly to merger conditions to specifically address public interest concerns. We study changes in this probability of conditional merger approval over time and find not only that the probability is higher for public interest cases, but also that it has risen substantially in recent years. This suggests more aggressive merger control in South Africa over the sample period.

The study relies on a newly compiled database of South African large[1] merger decisions. As explained below, the compilation involved extracting information on merger and adjudication characteristics from publicly available records of the South African Competition Tribunal and Competition Commission. The compiled database covers the years 2006 to 2018.

The paper is structured as follows. Section 2 provides a cursory review of public interest objectives in merger control in several jurisdictions, with an emphasis on Africa and South Africa in particular. Section 3 considers the limited extant research involving systematic studies of merger control, with an emphasis on public interest. Section 4 discusses the methodology, including the data collection methods, sampling and data analysis. Section 5 provides a descriptive analysis that highlights key features of the data, while section 6 an econometric assessment of the link between

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[1]South African legislation defines a large merger meets any of the following requirements: 1) the combined turnover in, into or from South Africa of the acquiring and target firms is valued at or above 6.6 billion rands; 2)the combined assets in South Africa of the acquiring and target firms are valued at or above 6.6 billion rands; 3) the turnover in, into or from South Africa of the acquiring firm plus the assets in South Africa of the target firm are valued at or above 6.6 billion rands; 4) or the assets in South Africa of the acquiring firm plus the turnover in, into or from the target are valued at or above 6.6 billion rands; and either: the turnover in, into or from South Africa of the target firm exceeds 190 million rands; or the value of the target firm's assets in South Africa exceeds 190 million rands.

duration, conditional approval and public interest concerns. The last section concludes the paper.

2 Non-Competition Objectives in Merger Control

This section begins by defining public interest within the confines of competition law and key considerations surrounding the inclusion of non-competition criteria in competition law. We then discuss public interest criteria in the merger control regime of various jurisdictions with an emphasis on African and especially South African merger control.

2.1 Competition v. Public interest: Definition and debate

The main objective of competition policy is to preserve market competition, by creating an environment that fosters the efficiency and responsiveness of businesses and also serves the interest of consumers. Competition law conventionally aims to increase consumer welfare, primarily through efficiency. However, in recent years we have witnessed a rise in the inclusion of non-competition goals in competition law – especially in developing countries (Capobianco and Nagy, 2016). These non-competition goals, which may not serve efficiency aims, are often referred to as "public interest" goals.

Arguably, competition policy advances 'the public interest', to the extent that it is concerned with the welfare of consumers or broader society in relation to a particular market. In competition policy, however, "public interest" goals run parallel to competition goals, but rely on competition law as the enforcement framework (Smith and Swan, 2013). These additional factors include the promotion of employment, the promotion of national champions and/or national security.

In recent years, there has been a call for competition convergence and many countries have opted to adopt a competition-based merger regime. The presence of auxiliary public interest goals, which differ by jurisdiction, suggest that this convergence may be difficult to attain. Proponents would insist that all policy tools must contribute to address problems of poverty, unemployment and discrimination, especially in developing countries. Consequently, it could be argued that competition policies are likely to differ by jurisdiction.

Opponents question whether competition policy is the best tool to address larger social problems and argue that the inclusion of other goals in competition policy dilutes the main objective of competition policy which is efficiency gains derived from enhanced rivalry. Early opponents in South Africa, such as Reekie (1999) argues that auxiliary goals in competition law may well lead to inappropriate lobbying by both plaintiffs and defendants. Indeed, even proponents advocating a developmental role for competition policy acknowledge the difficult task of advancing equality goals without substantially undermining market goals (Fox, 2000).

The efficiency gains from a proposed transaction may be reduced, or even offset, by the cost of implementing remedies to respond to public interest concerns (Boshoff et al., 2012). These costs include the forgone efficiency gains due to, for example, retrenchment moratoria as well as actual monetary costs due to divestiture. They also include procedural costs in terms of increased duration of adjudication. The loss of transparency and predictability of the merger control process is a common argument against these goals (Oxenham, 2012).

For a policy to produce its desired effect, one of the essential ingredients is legal certainty. In the context of merger policy, legal certainty can be defined as predictability based on past experience.

This can be viewed both in terms of the likelihood of the outcome given a set of assumptions as well as the expected process of the case. The former is closely related to consistency, as legal certainty depends a great deal on consistency – observing past cases should allow for a prediction of the outcome for a new case.

Arguably, South African competition authorities are also concerned with ensuring consistency in merger decisions that involve public interest considerations. In 2016, the Competition Commission published its Guidelines on the Assessment of Public Interest Provisions in Merger Regulation. These Guidelines seek to clarify the various factors considered by the Commission in assessing public interest considerations. While intended primarily for informational purposes, it is nevertheless indicative of a policy preference for increased certainty. Our empirical analysis is an attempt at evaluating whether such certainty has emerged. As argued in this paper, we find increased probability that conditions would be attached to the approval of merger cases in South Africa. Increased probability of conditional approval suggests that the Guidelines are a reflection of a shift towards a more aggressive merger enforcement regime over the sample period.

Having that in mind, it is essential to anticipate how long the merger clearance process would take given the different considerations outlined in the Competition Act. Additionally, it is essential to investigate if the inclusion of these non-competition goals has changed the probability of merger approval.

2.2   Public interest around the globe

As noted earlier, public interest considerations in merger control tend to reflect country-specific policy concerns (Reader, 2020). Consequently, these considerations may take various forms in different jurisdictions.

In the US, public interest concerns in merger control are sector-specific and articulated under national security legislation. National security concerns relate to mergers in politically sensitive sectors such as aerospace and media. In recent years, at least two US decisions to enjoin mergers have involved national security concerns: the Canyon Bridge/Lattice[2] transaction which was blocked in September 2017 and the Broadcom/Qualcomm merger which was also blocked in March 2018[3]. Even so, beyond these cases, merger control in the US – at least where it involves domestic partners – does not regularly feature non-competition concerns.

In the EU, broader social objectives feature more prominently in competition law. Public interest considerations are not sector-specific, but specified as 'exceptions' to the substantive tests in merger control. Public security, plurality of the media and prudential rules relating to the financial sector are examples of such public interest concerns and feature explicitly as legitimate interests in Article 21(4) of the European Union Merger Regulation (EUMR)[4].

Even so, public interest considerations need not trump competition concerns in the EU, even for cross-border mergers that have political support. The European Commission is responsible for assessing cross-border mergers and assesses them strictly on a competition basis. Member states are

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[2]https://www.whitehouse.gov/presidential-actions/order-regarding-proposed-acquisition-lattice-semiconductor-corporation-china-venture-capital-fund-corporation-limited/

[3]See Presidential Order Regarding the Proposed Takeover of Qualcomm Incorporated by Broadcom Limited, dated 12 March 2018, available at www.whitehouse.gov/presidential-actions/presidential-order-regarding-proposed-takeover-qualcomm-incorporated-broadcom-limited/.

[4]https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32004R0139&from=EN

entitled to limited intervention in the merger proceedings on grounds of protecting stated legitimate interests.

A recent high-profile merger case that has given public interest renewed attention in the EU, is the failed Alstom/Siemens merger [5]. Despite political support for the transaction and the merging parties arguing that it would create a transnational champion, which is a public interest consideration in European merger control, the European Commission still prohibited the merger on competition grounds. It suggests that the European Commission is less receptive to ignore substantive competition concerns – even if the EU framework may allow for broader considerations in evaluating mergers.

In the United Kingdom (UK), public interest objectives were more extensively articulated in earlier competition statutes[6] and these originally formed part of the substantive legal test. To determine if a merger is expected to work against the public interest, under the Fair Trading Act 1973 section 84, the Monopolies & Mergers Commission (MMC) was required to take into account 'all matters which appear to them in the particular circumstances to be relevant', with regard to the desirability:

(a) of maintaining and promoting effective competition between persons supplying goods and services in the United Kingdom; (b) of promoting the interests of consumers, purchasers and other users of goods and services in the United Kingdom in respect of the prices charged for them and in respect of their quality and the variety of goods and services supplied; (c) of promoting, through competition, the reduction of costs and the development and use of new techniques and new products, and of facilitating the entry of new competitors into existing markets; (d) of maintaining and promoting the balanced distribution of industry and employment in the United Kingdom; and (e) of maintaining and promoting competitive activity in markets outside the United Kingdom on the part of producers of goods, and of suppliers of goods and services, in the United Kingdom.

Under current UK legislation, the Enterprise Act 2002, public interest is considered as an exception to the substantive legal test, which now focuses exclusively on competition concerns. In particular, public interest relates to national security, media plurality or the stability of the UK financial system – reflecting similar considerations in the EU. Furthermore, since June 2020, special consideration is provided under the need to combat public health emergencies – as instituted during the Covid-19 outbreak.

In general, merger control in the developed world features selected non-competition objectives. In contrast, several developing countries – particularly in Africa – feature merger control regimes that account for a broad set of public interest criteria. Public interest considerations are prevalent – albeit in different forms – in Botswana, Namibia, Kenya, Zambia, Malawi and South Africa.

In Botswana, as in a number of other African jurisdictions, public interest factors are assessed as part of the substantive legal test and the considerations appear to have a broad scope. The Botswana Competition Act (2009)[7], section 53, refers to 'certain aspects of the general public interest'. Vaguely formulated, these considerations warrant an exemption from merger control at the discretion of the responsible government minister. The enforcement of these provisions is evident from a 2012 case, AON/AON. The Botswana authorities' main concern was that the merger

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[5]https://ec.europa.eu/commission/presscorner/detail/en/IP_19_881
[6]The Monopolies and Restrictive Practices Act 1948, and Fair Trading Act 1973
[7]https://osall.org.za/docs/Botswana%20-%20Competition%20Act%2017%20of%202009.pdf

would reduce local ownership and, hence, harm the public interest. Despite the merger not raising competition concerns, it was prohibited on public interest grounds.

The Namibian Competition Act, 2003, section 47(2)[8] also requires merger evaluation to include a broad range of public interest factors, which, as is the case for Botswana, form part of the substantive test. While the Namibian Competition Commission is the adjudicating body for merger review, appeals may be directed to the relevant minister. Public interest considerations became more prominent in Namibia after the 2012 Wal-mart/Massmart merger, which, as in South Africa, was approved subject to conditions relating to several public interest concerns. The conditions imposed differed somewhat from those in the South African jurisdiction.

Section 46 (2)(c) to (g) of the Competition Act of Kenya requires the competition authorities to assess the extent to which a proposed merger would likely affect a) a particular industrial sector or region; b) employment; c) the ability of small undertakings to gain access to or be competitive in any market; d) the ability of national industries to compete in international markets and e) results in a benefit to the public which would outweigh any detriment likely to result from any undertaking, including one not involved as a party in the proposed merger, acquiring or strengthening a dominant position in a market. Most of the public interest considerations reflect those in the South African Competition Act, as discussed later. However, unlike South African law, Kenyan law appears to allow anti-competitive mergers to be justified on the basis of public interest consideration (Gitonga, 2015). Furthermore, Kenyan competition legislation does not require public interest effects to be 'merger specific'. In fact, beyond merger control, public interest considerations can also be used to justify an exemption for an otherwise anti-competitive agreement.

In Zambia, the Competition and Consumer Protection Act 24 of 2010[9] outlines several public interest factors, including the maintenance or promotion of exports or employment, promoting progress and the transfer of skills. Beyond these specific factors, the Act also allows for 'socioeconomic factors as may be appropriate; and any other factor that bears upon the public interest' to be considered. In Zambia, public interest considerations can warrant an investigation for mergers that are below the notification threshold. This demonstrates the amount of weight afforded to public interest factors. However, the opacity of 'public interest' as defined in the Act has been a key concern (Capobianco and Nagy, 2016).

Finally, in Malawi, public interest factors also form part of the substantive test and are listed alongside competition factors without formally differentiating the two. Merger decisions must be made by weighing the costs and benefits of the merger both in terms of competition and public interest, as determined in section 38(2) of the Competition and Fair Trade Act no. 43 of 1998[10]. However, the practical implementation of this weighing is yet to be worked out.

The review above suggests important differences in approaching non-competition concerns in merger control between African Jurisdictions and developed countries. Developed countries take a more conservative approach to include non-competition goals. Indeed, merger control in some developed countries, such as the UK, has evolved from including a broad set of non-competition goals to a narrower set of factors. The review has also highlighted that not all African countries include similar public interest considerations, as most of them tailor these to suit the socio-economic and political needs of the country. That being said, most of these countries do face some similar

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[8]https://www.lac.org.na/laws/annoSTAT/Competition%20Act%202%20of%202003.pdf

[9]http://extwprlegs1.fao.org/docs/pdf/zam102117.pdf

[10]https://osall.org.za/docs/2011/03/Malawi-Competition-and-Fair-Trading-Act-43-of-1998.pdf

socio-economic challenges and might have some common public interest factors such as employment which is prominent among many developing countries.

2.3   Public interest in South Africa

The preceding review suggests that public interest considerations are tailored to the dynamics of a particular society. This is particularly clear for South Africa, as an emerging economy with considerable social divides, seeking to tackle some of those challenges with merger control and other tools of competition policy.

While Apartheid-era competition legislation also included public interest provisions, these interests were not formulated to reflect broader social concerns. This system, supported by an ineffective competition agency, contributed to concentrated markets- as well as a society with a wide social and economic divide among racial groups (Wise, 2004; Buthelezi et al., 2019).

With such a history, it is of no surprise that the competition policy reforms in post-apartheid South Africa included efforts to accommodate greater social concerns in competition law.

Public interest considerations were embedded in the Competition Act no. 89 of 1998. Subsequent and recent amendments to the Competition Act further enhanced the role of public interest considerations in merger control. The inclusion of public interest concerns served to avoid conflicts that might occur between socio-economic policies and market competition while keeping the competition assessment process independent from politicians (Hodge et al., 2012). Although public interest issues feature within other parts of the Act, like the preamble, they only appear explicitly under merger assessment.

South Africa evaluates mergers on public interest grounds as part of its substantive test. These public interest criteria are outlined as additional factors and separate from conventional competition factors, resulting in a parallel assessment. This is unlike Malawi and Zambia, where the public interest provisions are outlined together with conventional competition factors. Although all factors that are considered when reviewing a merger are outlined in the Act, there is a clear distinction between which provisions are related to conventional competition concerns and which are related to public interest concerns.

Public interest considerations play a significant role in the evaluation of mergers in South Africa. Competition authorities may approve an otherwise anticompetitive merger on public interest grounds or prohibit a merger that would be considered pro-competitive.

Under the original Competition Act introduced in 1998, a merger is justifiable on public interest grounds after considering its effect on:

1) a particular industrial sector or region,

2) employment,

3) the ability of small businesses or firms controlled or owned by historically disadvantaged persons to become competitive, and

4) the ability of national industries to compete in international markets.

Subsequent amendments to competition legislation expanded the above list to include an additional goal of promoting a greater spread of ownership, in particular, to increase levels of ownership

of historically disadvantaged persons and workers. The amended Act[11] also expanded public interest concerns in section 12A(3)(c) to cover medium-sized businesses, requiring a consideration of "the ability of small <u>and medium</u> businesses, or firms controlled or owned by historically disadvantaged persons, <u>to effectively enter into, participate in or expand within the market</u>". The latter phrase, dealing with "entry", "participation" and "expand within the market" has been the source of particular debate.

Additionally, and also following the recent legislative amendments, national security is included as part of the substantive test for mergers involving foreign buyers. Once in effect all foreign mergers will be potentially subject to investigation under grounds of national security. The South African Competition Tribunal (hereafter the Tribunal) and the South African Competition Commission (hereafter the Commission) will not be responsible for investigating or adjudicating these cases. The Act stipulates that the state president will select a committee that will be responsible for dealing with national security concerns in merger control. These changes elevate public interest considerations in South African merger review, while raising serious questions about transparency and predictability. We explore these issues further in the empirical analysis to follow.

2.3.1 Cases involving public interest

To illustrate how public interest considerations reflect in South African merger control, it is useful to consider two seminal cases. In particular, we consider the Wal-Mart/Massmart merger case as well as the more recent PepsiCo/Pioneer transaction.

Wal-mart/Massmart The Wal-mart/Massmart merger[12] was finalised in 2011 and involved the US-based retailer Wal-mart acquiring shares in Massmart, a wholesaler and retailer of grocery products.

South African competition authorities did not find significant anticompetitive effects associated with the transaction, but recommended that the merger be approved subject to conditions stemming from public interest concerns. The public interest related to the effects of the merger on employment, impact on a particular sector or region as well as the impact on the ability of small businesses or firms controlled by historically disadvantaged persons in South Africa to become competitive.

In terms of employment, the concern was both in terms of merger-related retrenchments and Walmart's practices in dealing with organised labour. The Tribunal ruled that the merging parties cannot engage in merger-specific retrenchments for two years and should adhere to existing labour agreements. In terms of the merger's effect on a particular sector or region and small businesses, the Tribunal ordered the establishment of a development fund to aid local suppliers valued at R100 million for a period of 3 years.

The merging parties subsequently appealed the ruling. The Competition Appeal Court in South Africa, however, strengthened the conditions, by ruling that the fund should run for 5 years and should be valued at R200 million and also ordered re-appointment of employees that were retrenched pre-merger in anticipation of the merger.

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[11]https://www.comptrib.co.za/Content/Documents/Legislation%20And%20Forms/The%20Competition%20Act/Proclam-of-the-commencement-of-certain-sections%20of-the-Competition-amendment-Act%202018.pdf

[12]Walmart Stores Inc and Massmart Holdings Limited, [Case No 73/LM/Nov10]

PepsiCo/Pioneer   The second case where public interest concerns featured prominently was in the recent PepsiCo/Pioneer merger[13], which was conditionally approved by the Tribunal in March 2020. The acquirer, PepsiCo, is one of the world's largest food and drink companies and the target firm, Pioneer, is a South African-based conglomerate specialising in producing and distributing branded food and beverage products. The merger was approved subject to conditions related to several public interest concerns.

The defining public interest characteristic of this case was its focus on the establishment of a greater spread of ownership (specifically among workers and historically disadvantaged individuals). It was one of the first high-profile cases to be evaluated under the amended competition legislation. As described earlier, this legislation provides for a broader range of public interest considerations, including the extent to which a merger affects the so-called spread of ownership. The merged entity agreed to the implementation of a broad-based black ownership plan. This involves PepsiCo issuing R1.6 billion of its ordinary shares to a broad-based black trust belonging to Pioneer Food's South African employees. Apart from this, the merging parties also agreed to a 5-year moratorium on merger-related retrenchments and an expansion that will ensure increased employment. Additionally, the merged entity agreed to maintain all sale and distribution agreements with historically disadvantaged individuals and firms for a minimum period of 2 years and has committed to the establishment of a development fund to the value of R600 million. Lastly, the merged entity agreed to maintain its head office in South Africa.

The PepsiCo/Pioneer and Wal-mart/Massmart cases, among many, illustrate how public interest concerns can shape merger decisions[14]. Despite the absence of any significant competition concerns, which would otherwise warrant unconditional approval, the two mergers were approved subject to conditions aimed at addressing public interest concerns.

Furthermore, it is important to note the impact on the duration of merger review for both cases. The Wal-mart/Massmart and PepsiCo/Pioneer case took 210 and 183 days respectively. South African competition legislation stipulates a duration of 60 days from the date of filing to the date of the decision. Although the provisions allow for flexibility, straying so far from the intended duration distorts merger timelines for the merging parties, arguably creating significant uncertainty.

Indeed, opponents have argued that the inclusion of public interest concerns in South African merger control give rise to both substantive uncertainty, including the potential costs to implement remedies, and procedural uncertainty, due to prolonged adjudication.

It is therefore important to understand how public interest factors affect the duration of merger adjudication and the probability of conditional approval over time.

3   Literature on Public Interest in Merger Control and Duration

Several previous studies have attempted systematic reviews of merger decisions, including studies of US (Coate and McChesney, 1992; Coate, 2005), EU (Bergman et al., 2005, 2010; Garrod and

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[13]Simba LTD and Pioneer Food group Limited [Case No LM108Sep19]

[14]Angumuthoo et al. (2020) & Oxenham (2012) provide a review of more cases

Lyons, 2016), Canadian (Khemani and Shapiro, 1993) and Mexican (Avalos and De Hoyos, 2008) merger control.

Even so, few systematic studies of merger control consider the extent to which merger review considers public interest. Weir (1992; 1993) considers the extent to which merger decisions in the UK took broader social or economic objectives into account. This work relates to merger decisions prior to the adoption of the Enterprise Act (2002) when public interest criteria were still explicitly evaluated as part of the substantive legal test in the UK. Weir (1992) assesses the various ways in which UK competition authorities evaluated various aspects of public interest in merger bids, including the conditions under which a merger bid referred was allowed to proceed. The author considers the relative and absolute salience of five factors in merger decisions: 1) competition, prices and quality, 2) cost reductions, 3) new entry and new techniques, 4) industrial and employment distributions and 5) foreign trade. Using a sample of 77 merger reports from the years 1974-1990, the study finds that the UK competition authority considered variables related to competition concerns throughout the entire sample period, but that public interest variables were less important. These findings therefore do not suggest that public interest considerations dominated UK merger decisions to the detriment of competition considerations, which was an argument used to motivate the removal of these considerations in the subsequent Enterprise Act (2002).

Apart from the UK study above, no study outside South Africa has systematically evaluated the role of public interest considerations in merger decisions. As observed, most developed jurisdictions with a larger volume of mergers consider public interest as an exception to the substantive test. Additionally, in jurisdictions where public interest is included as part of the substantive test, the volume of mergers is not as large and the data not readily available. As discussed below, this is also what renders the South African setting attractive, as mergers are frequently observed, and they are all assessed on public interest grounds. With this in mind, we proceed to briefly consider previous studies on public interest considerations in South African merger control.

3.1 South African merger studies

A select number of older studies (Theron, 2001; Roberts, 2004; Teague, 2009) analyse public interest in South African merger control, as part of a broader assessment.

Theron (2001) studies 5 merger cases adjudicated in the early years following enactment of the Competition Act in 1999. The study investigates, inter alia, whether the inclusion of non-competition goals might have changed merger decisions. Using a case-by-case review, the author notes that competition objectives were at the forefront of every analysis, while public interest concerns were considered in coming to the final decision of the case. The public interest issues raised were not sufficient to alter the verdict arising from the competition side of the assessment.

Another early assessment of the role of competition policy in economic development in South Africa, Roberts (2004) comes to a different conclusion. This study argues that public interest concern was already playing an important role in the early years following the new competition regime, claiming that authorities considered the trade-off between broader non-competition and competition concerns in South African merger decisions:

> Based on the rulings on mergers, a balance is being struck between competition, a broad definition of efficiency and public interest concerns such as employment.

-Roberts (2004, p.236)

Teague (2009), consistent with Theron (2001), concludes that public interest concerns were of secondary importance to competition concerns, at least when considering the first 10 years of the new South African competition dispensation. Teague (2009) analyses the policy decision for the inclusion and role of public interest in South African competition law. Using comparative analysis, the paper compares competition laws for different countries and argues in favour of the inclusion of public interest consideration in developing countries. In comparing South African competition enforcement to other jurisdictions– Brazil and Indonesia – the author finds that the weight given to public interest considerations is similar to that of Indonesia. However, Brazil is argued to take a more aggressive approach when dealing with public interest considerations, compared to South Africa. The author argues that Brazilian competition authorities are more inclined to prohibit a merger if it contravenes public interest goals. This is in contrast to South Africa, which favours the imposition of remedies on such mergers – as discussed later, until date no proposed merger has been prohibited strictly on public interest grounds.

Grimbeek et al. (2013) is the first to provide a systematic study of merger control in South Africa. Their paper formally investigates whether merger decisions in South Africa had been consistent for the sample period 2002 to 2009. Using a dataset that consisted of a population of 2277 mergers, their study incorporates variables considered in merger evaluation, as stated by the merger guidelines. The paper uses binary response models which include year dummies to test for potential inconsistencies in merger decisions made between the years. The results of the study suggest that the probability of both unconditional and conditional approval, as well as the probability of a merger to be prohibited, are not significantly different for the different years of the sample period. They also find that the South African Competition Commission is geared towards protecting the public interest as outlined through the public interest provisions; the Commission was likely to prohibit or approve a merger with conditions if merger cases featured public interest concerns.

While Teague (2009) and Grimbeek et al. (2013) have overlapping sample periods, they reach different conclusions about the assessment of public interest criteria. Teague (2009) argues that the competition authorities have leaned towards a more conservative stance while Grimbeek et al. (2013) argue that they have taken a more proactive stance at dealing with public interest. Teague (2009) compares South Africa to other competition jurisdictions, which took a much stricter stance by prohibiting some mergers based on the public interest assessment. On the other hand, Grimbeek et al. (2013) considers the population of decisions at a particular point and the extent to which the law provides for consideration of public interest criteria. From that angle, may well be argued that the competition authorities are prosecuting mergers to the full extent that the law provides.

While Grimbeek et al. (2013) is the first to offer a systematic study of merger decisions in South Africa, it faces two limitations. Firstly, public interest concerns are measured by a single aggregate variable. There is limited consideration of the different aspects of public interest as outlined in competition legislation, including the relative importance of employment concerns relative to other public interest issues. Secondly, the dataset is quite dated, given the apparent increased emphasis on public interest considerations suggested by the Wal-Mart/Massmart and PepsiCo/Pioneer cases of the past ten years. As discussed below, our study focuses on public interest concerns of various forms and their impact on South African merger control over a longer sample period.

3.2 Duration

As noted earlier, opponents have claimed that the apparent increased focus on public interest considerations in South African merger control not only raises substantive uncertainty, but also increases procedural uncertainty. Procedural uncertainty relate *inter alia* to the expected duration of merger review. The duration of merger review has received little attention in the international literature, although selected studies have considered the impact of delays in merger review.

Garrod and Lyons (2016) study early settlement in European merger control, highlighting the relationship between delay and settlements on merger remedies. These authors emphasise that the speed of settlement represents a key cost consideration for merging parties, even while delays may also be associated with enforcement benefits. They argue that both parties have to balance between the potential benefits accrued from the merger and the shortfalls that arise from extending the investigation or litigation. Their empirical finding, of a link between merger conditions and duration, is of importance to this paper. Firstly, it highlights the important role that duration plays in merger adjudication and the associated costs that result from uncertainty. Additionally, it provides empirical evidence on the relationship between merger investigations and duration for complex cases. We return to complexity as a control variable in the subsequent empirical analysis of drivers of merger duration in South Africa.

Ormosi (2012) considers the different factors that merging parties consider when adopting a litigation strategy. Ormosi (2012) assumes that merging parties consider the difference between the costs of delay in terms of prolonged litigation and costs of remedies that require divestiture. If the cost of delay is higher, merging parties would opt to withhold information relating to efficiency claims, in favour of incurring the cost of a stricter remedy. However, if the costs of prolonged litigation are lower, the merging parties opt to reveal all information with the hopes of obtaining a lighter remedy (if any) at the cost of longer litigation (reduced litigation cost). Our paper attempts to investigate these trade-offs through an empirical lens.

As discussed later, we observe the various merger and enforcement characteristics associated with a merger decision. We seek to study how these characteristics affect the duration of merger investigation at different levels of the assessment. Particularly, we are interested in studying how public interest can change litigation costs due to prolonged investigations.

Our paper is also related to broader empirical studies of merger enforcement. Carree et al. (2010) follow a descriptive approach in studying merger enforcement duration in the European Union in the years between 1959 and 2004. These authors highlight the impact of backlogs on case duration, with the longest merger case taking 289 months from the filing date until the formal decision was made. Their paper provides a first step to understanding the interaction between duration and merger enforcement. As explained, our analysis goes further, by considering duration outcomes conditioned on various merger characteristics and focusing specifically on public interest considerations.

Given this review of extant literature, our study seeks to answer two main questions. Firstly, we study the relationship between public interest considerations in South African merger control and the duration of merger adjudication. We hypothesize that public interest considerations contribute to increased merger duration because of the diversity of issues involved within public interest.

Secondly, we study the relationship between the probability of merger approval in South Africa and public interest considerations. We hypothesize that conditional approval – as opposed to unconditional approval – has risen, given that merger conditions are often used to respond to

public interest concerns. As discussed later, very few mergers have been blocked and none solely due to public interest concerns.

4 Data

This section explains how the data was compiled, outlines the sampling strategy and provides a brief description of the variables used in the subsequent analysis.

4.1 Data collection

The data compiled for this study was collected from 1137 decision files, which contain the formal reasons for merger decisions uploaded on the Competition Tribunal website, as well as from selected merger activity files uploaded on the Competition Commission website. Not all the files are used in the analysis due to incomplete information.

The data compilation exercise transformed the information in the decision files to a format that allows for statistical and econometric analysis and included mapping of qualitative information into quantitative variables. The compiled dataset can be described as a pooled cross-section of large South African merger decisions over the period 2006 to 2019. n particular, our data is collected for fiscal years 2006 to 2018. Fiscal years for both the Competition Tribunal and the Competition Commission run from May to April the following year. Therefore, our database covers decisions published from April 2006 to March 2019.

4.2 Focus of dataset

The dataset contains information on large mergers. In the South African context, mergers can be classified as either large, intermediate or small according to the combined turnover or asset value of both the acquiring and target firm. South African competition law requires proposed large mergers to be notified to the Commission, which makes a recommendation to the Tribunal. The Tribunal formally adjudicates the matter. The Commission adjudicates intermediate mergers. Intermediate mergers may proceed to the Tribunal under special circumstances, e.g. if a party involved in an intermediate merger seeks to appeal the Commission's decision. Notification of small mergers is optional and small mergers are only referred to the Tribunal under special circumstances. Only large mergers are frequently and directly observable since these transactions must be scrutinized by South African authorities and the decision files following the proceedings are published by the Tribunal. Therefore, our dataset focuses on large mergers.

The dataset omits all prohibited and withdrawn mergers. The decision to exclude the prohibited and withdrawn files was made based on the methodology used to answer the questions outlined in this study. Firstly, the population of mergers contains a very small number of mergers that were prohibited. Only 6 mergers have been prohibited by the Tribunal since the establishment of the new competition regime in 1998. Secondly, and more important, the Tribunal is yet to prohibit a large merger solely on the basis of public interest factors.

The Competition Act of South Africa mandates the competition authorities to approve or prohibit a merger based on public interest grounds. A merger is firstly assessed on conventional competition factors to assess if the proposed merger will substantially prevent or lessen competition in the affected market. Subsequently, the merger is assessed on public interest grounds.

A case warrants a prohibition if the competition and/or public interest assessment led to a negative finding and the proposed remedies are neither suitable nor enough to counteract the negatives effects found from the assessment. To date, the Tribunal is yet to prohibit a large merger on the basis of public interest factors.

The strongest response by the Tribunal to a negative public interest assessment has been to impose conditions on a merger. This can be seen in most of the seminal cases involving public interest in South Africa, including the previously reviewed Wal-Mart/Massmart and PepsiCo/Pioneer mergers.

Even so, public interest concerns have contributed to merger prohibition in at least two of the six cases. Specifically, the prohibited Telkom/BCX and Mediclinic/MMHS hospital merger specifically featured an emphasis on adverse public interest effects in addition to the substantive competition concerns raised by the authorities. Therefore, in the empirical analysis, we compare the findings to the insights offered by these cases.

As for withdrawn merger cases, Bergman et al. (2005) argue that abandoned cases anticipate a non-favourable outcome and may also be grouped with prohibited mergers. However, for this study, these merger case files are not available on the Tribunal website and are therefore omitted from the sample together with the prohibited mergers. We therefore only focus on unconditional approvals versus approvals subject to conditions. That is, we are contrasting conditional approval (which is an adverse outcome for merging parties) with unconditional approval (which would be a positive outcome for the merging parties).

4.3   Sampling

It is not possible to analyse the entire population of decision files. Some of the merger decision files were missing from the website and others included redacted information. With that in mind, we use the sampling method explained in the next section to obtain more precise estimates and estimates that give a true representation of the population. The sampling method discussed in the next section results in a sample of 584 merger decisions composed of 94 merger cases involving public interest concerns and 490 merger cases where no public interest concerns were raised.

Previous studies of merger decisions (Bergman et al., 2005; Grimbeek et al., 2013) have also implemented sampling methods to increase the efficiency of the statistical analysis. As in our case, sampling methods were necessary because of time constraints in collecting the data and also as a way of dealing with missing observations in the population of mergers.

As much as the study tried to cover the entire population of large mergers, it was not possible to collect all the information needed from all the mergers. Several decision files were incomplete and had to be omitted from the dataset. To be able to generalize to the population of mergers, a sampling methodology is used to obtain a representative sample and weight the observations accordingly.

We rely on stratified random sampling to obtain the final sample for analysis. Stratification was done by year and then by type within each year.

In stratifying by year all observations collected for each year were first included in the sample. The sample was then stratified by unconditional approval vs approvals subject to conditions[15]

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[15]Grimbeek et al. (2013) also stratify by the same variable which is used as a dependent variable in

within each year. Subsequently, the sample is stratified by public interest vs non-public interest cases within each year and ultimately included all public interest cases, as there were fewer such cases compared to non-public interest cases in the population. Finally, a Simple Random Sample (SRS) was collected from the non-public interest cases for each year and were included in the final sample.

Sample observations are weighted by the inverse probability of being included in the sample. This probability was calculated based on the number of observations chosen for a particular sample stratum relative to the number of observations in the population stratum (i.e. the conditionally approved cases included in a particular sample stratum relative to the number of conditionally approved cases in that particular population stratum). This ratio was 146/99 when stratified by conditional approval. A breakdown of the final sample by public interest consideration is provided in Table 8 (in the appendix).

4.4   Variables

Table 1 below summarizes the variables captured in the dataset. The dependent variables described are those used in studying either the duration or the probability of approval of South African merger decisions. As far as duration is concerned, 3 dependent variables are included: *entire enforcement duration, Commission duration* and *Tribunal duration*. As discussed subsequently, these relate to the overall duration of adjudication as well as the duration of the two subsequent stages of merger assessment (one by the Competition Commission and one by the Tribunal). For the purpose of studying the probability of conditional approval, the dependent variable *enforcement decision* is used.

The independent variables are categorised into public interest variables, our main area of focus, and control variables. For the public interest variables, we include both an encompassing measure of public interest (for any type of concern) as well as individual variables measuring specific types of public interest concern. All of the variables are binary in nature, capturing whether a particular public interest concern was flagged for a particular merger case. As discussed earlier, the public interest variables relate to *employment, ability of small businesses to compete, broad-based black economic empowerment (BBBEE), ability of local firms to compete internationally* and *impact on a particular industrial sector*.

The BBBEE variable measures a component from the public interest factor stated in the pre-amended Competition Act as "the ability of small businesses or firms controlled or owned by historically disadvantaged persons to become competitive..". Competition authorities assess this particular public interest concern on two fronts –at least when studying the decision files. Firstly, it is assessed in terms of the ability of small businesses to compete in any relevant market: this assessment is not restricted to the business being owned by historically disadvantaged individuals. On the other hand, the BBBEE variable captures arguments where the Tribunal or any of the involved parties stated that there would be an effect on black empowerment or the interests of historically disadvantaged individuals as a result of the merger. The amended Competition Act now captures these two concerns separately. Although the amended Act only came into effect recently, it would appear that there has been a concern with black empowerment and the spread of ownership for quite some time and we decided to capture it through this variable.

Table 1 also outlines selected control variables namely *competition concern, year, sector, vertical*

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regression analysis.

and *case load*.

As discussed earlier, mergers are adjudicated in South Africa both in terms of their public interest effects and their competition effects. The public interest variable(s) mentioned above captures the public interest side of the evaluation, but all mergers are also evaluated in terms of conventional competition factors which also need to be controlled for. The variable that captures these conventional competition concerns is called *competition concern*. This is a dummy variable that measures whether there was a concern based on one or more of the following competition factors: 1) coordinated effects 2) vertical effects 3) presence of a failing firm 4) high levels of concentration pre-merger in the market or increasing levels of concentration due to the merger and 5) the removal of an effective competitor.

The inclusion of the *vertical* variable follows the literature and research that has shown that vertical mergers are evaluated differently from horizontal mergers. Earlier studies and competition practitioners maintain that vertical mergers are less harmful to competition. Grimbeek et al. (2013) controlling for this by forming subsamples of only horizontal or vertical mergers and performing regression analysis on the different samples. We control for vertical mergers by including a dummy variable indicating if the merger has vertical aspects.

The *case load* variable measures resourcing of the competition authorities. With fewer resources, merger assessment may be either prolonged or may be less intensive. In both scenarios this is theorized to affect the duration of the investigation and previous studies (Garrod and Lyons, 2016; Ormosi, 2012) have also shown how this might ultimately affect the outcome of the merger decision. Given fewer resources, the competition authorities might more likely recommend approval without conditions as it would be too costly to monitor whether remedies are appropriately implemented. The case load variable is constructed by calculating the average number of cases that were simultaneously in the pipeline at the time when the current case was being considered. The case load only deals with the number of mergers under consideration. This averages out the number of cases that are concurrently observed within the same period of investigation; between the initial date the case is filed at the Commission to when the order is released. If a case has not been decided yet by the Tribunal, it can be termed an active case. Therefore, the case load variable averages out the number of active cases per day in the given time frame when the merger case was being evaluated. We recognise that the competition authorities might have had other responsibilities during this time, i.e evaluation of small and intermediate mergers or market inquiries that are particularly resource intensive, but which are not captured by our variable.

The year and sector variables are included to control for unobserved sector or year fixed effects.

Table 1: Variable definitions

Variable	Type of variable and description
Dependent variables	
Entire enforcement duration	Continuous variable: number of days from date of filing at Commission to date of formal decision at Tribunal (i.e. sum of Commission duration and Tribunal duration as defined below)
Commission duration	Continuous variable: number of days from date of filing at Commission to date of referral to Tribunal (i.e. end of Commission stage)
Tribunal duration	Continuous variable: Number of days from date of referral to Tribunal to date of formal decision at Tribunal
Enforcement decision (Impose conditions)	Dummy variable: 1 if conditions were imposed on case; 0 if approved without conditions
Independent variables	
Public interest variables	
(*Aggregate*) Public interest concern	Dummy variable: 1 if there is an assessment of any public interest concern; 0 otherwise
Employment	Dummy variable: 1 if there is an assessment of a public interest concern related to employment; 0 otherwise
Ability of small businesses to compete	Dummy variable: 1 if there is an assessment of a public interest concern related to the ability of small businesses to compete; 0 otherwise
Broad-black based economic empowerment (BBBEE)	Dummy variable: 1 if there is an assessment of a public interest concern related to BBBEE; 0 otherwise
Ability of local firms to compete internationally	Dummy variable: 1 if there is an assessment of a public interest concern related to the ability of local firms to compete internationally; 0 otherwise
Impact on a particular industrial sector	Dummy variable: 1 if there is an assessment of a public interest concern related to an impact on a particular industrial sector; 0 otherwise
Control variables	
Year	Categorical variable: indicating fiscal year, ranges from 2006-2019
Sector	Categorical variable: indicating industrial sector of merger classified by SIC, ranges from 1-19
Vertical	Dummy variable: 1 if merger categorized as a vertical merger; 0 otherwise
Case load	Continuous variable: average number of cases under consideration, concurrently considered during the period case was under investigation
Competition concern	Dummy variable: 1 indicating presence of competition concern; 0 otherwise
Other featured variables	
PI concern decision	Categorical variable: indicating the decision on cases involving public interest– dismissed, conditionally approved and considered
Public interest criterion	Categorical variable: indicating type of public interest variable assessed/concern

5 Descriptive analysis

The compiled dataset reveals important trends in South African merger decisions that involve public interest concerns. As discussed below, the extent to which such considerations feature, and the nature of the public interest concern, show variation over time. In particular, there is strong descriptive evidence of a rise in conditional merger approvals and increased duration of merger adjudication, both in response to public interest concerns.

5.0.1 The rise of public interest concerns over time

Fig. 1 illustrates the rising importance of public interest concerns in South African merger control. The graph confirms that the number of large mergers in South Africa has fluctuated around 75 per year, with a lower number during the global financial crisis period (2009-2010). This general stagnation in merger activity arguably reflects the stagnation in the South African economy over the past ten years (Boshoff and Du Plessis, 2020). At the same time, the graph suggests a notable increase in the number of merger cases involving public interest considerations.
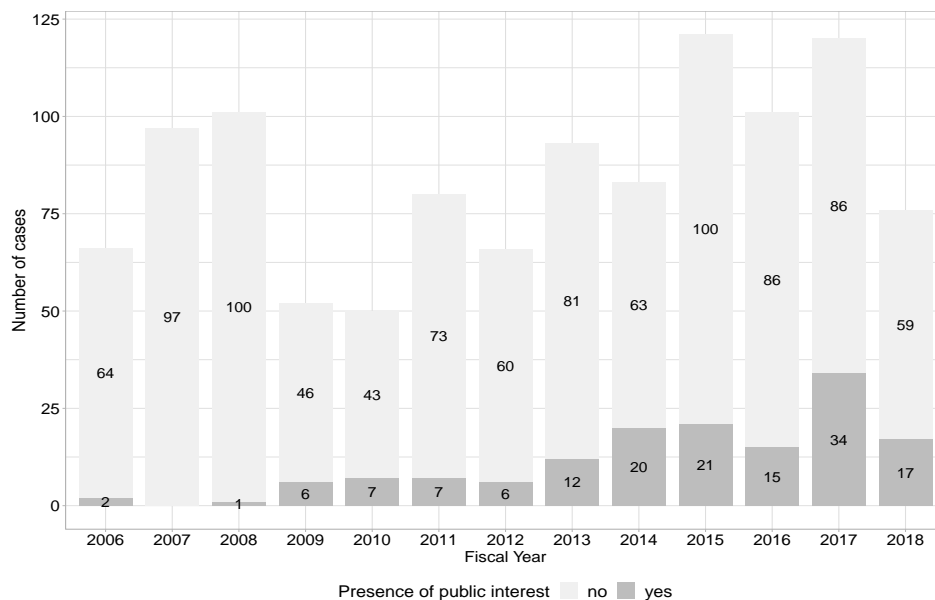
Figure 1: Prevalence of public interest concerns in merger cases

5.0.2 Public interest criteria distribution over time

It is important to differentiate between the different types of public interest concern and how frequently they arise in South African merger decisions. Fig. 2 provides a breakdown of the different public interest concerns in the sample.

Fig. 2 shows that employment concerns is the dominant public interest consideration. Indeed, in the early years of our sample the employment effect of mergers was the sole public interest consideration. The graph also shows an increasing concern with black empowerment, in keeping with the shift in government policy in this regard. The figure also confirms increasing diversity of public interest concerns raised in merger cases over the last five years of the sample period.

These trends raise questions about the impact of the rise of public interest concerns on merger outcomes (in terms of the probability of merger approval) and, indeed, the merger review process (and, specifically, the duration of merger review). The following subsections provide some initial answers.
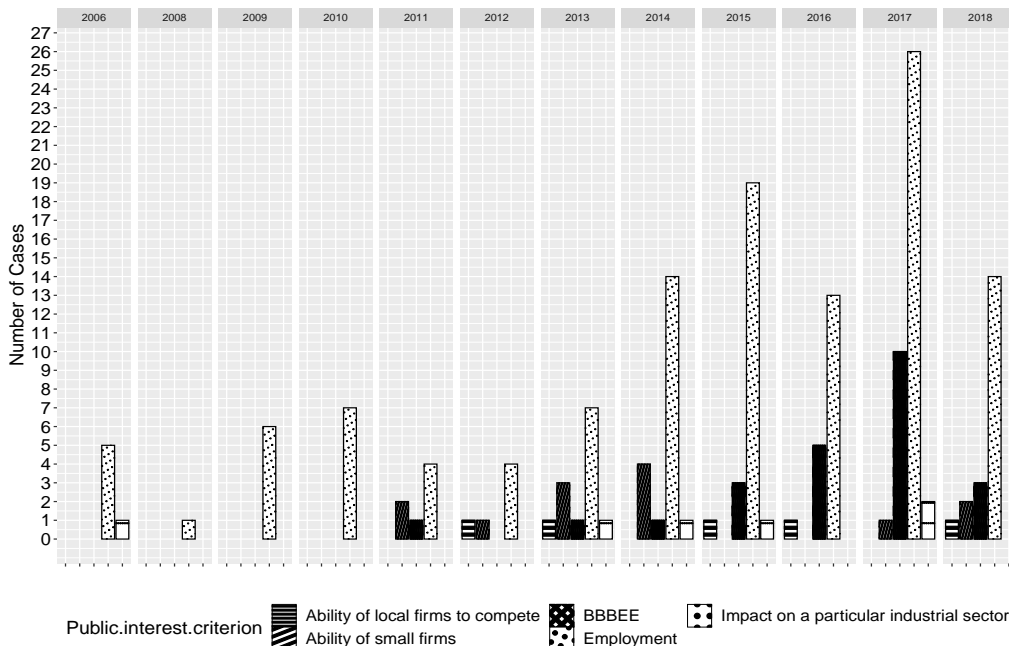

Figure 2: Type of criterion in cases featuring public interest concerns

5.0.3 Conditionally approved cases over time

Our dataset measures whether a merger was approved conditionally and we are therefore able to evaluate the evolution in the probability of conditional approval.

Fig. 3 panel (a) provides an overview of South African merger decisions from fiscal years 2006-2018. The bar graph shows the number of cases that were approved and those that were conditionally approved in each year. The results show that the average number of conditionally approved cases has increased over time, especially since 2013.

Panel (b), gives a breakdown of the number of conditionally approved cases that featured public interest concerns. This number has also increased from 2013 onwards. Therefore, not all cases that have been conditionally approved are public interest cases, potentially implying that competition concerns may have also received closer scrutiny. Furthermore, at least some cases involve both public interest and competition concerns.

This analysis excludes mergers that were prohibited. As discussed below, prohibited cases are quite rare in South Africa and public interest concerns are usually addressed by means of conditions.

5.0.4 Review of prohibited mergers

Imposing conditions to respond to public interest concerns can be seen as one way for enforcers to restrain merger activity. Merger prohibition would be another– and more extreme – way. We

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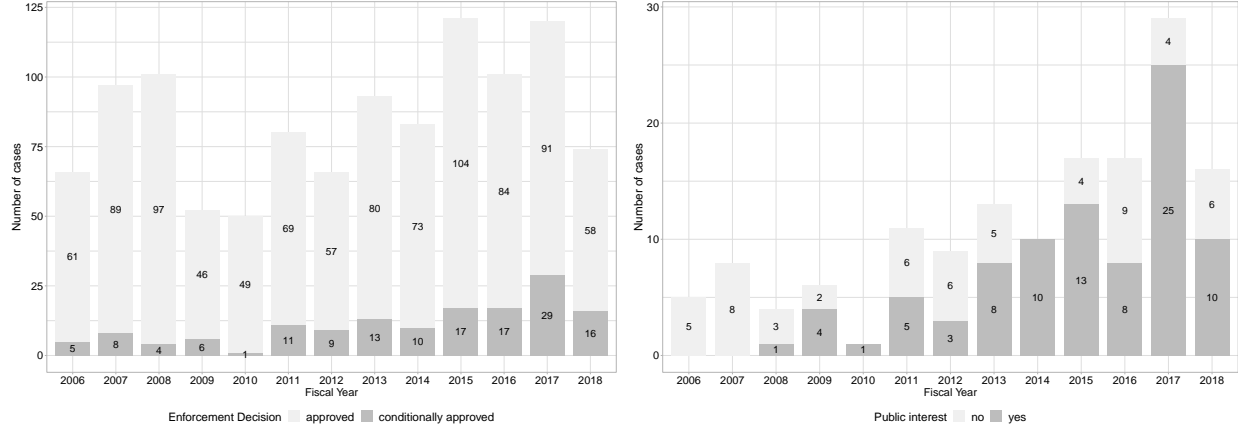
(a) Enforcement decision for all merger cases over time

(b) Conditionally approved public interest cases over time

Figure 3: Enforcement decision for merger cases over time

have already mentioned that the very low number of prohibited mergers have led us to exclude this from the dataset. Even so, it is useful for our descriptive analysis to take note of the role of public interest concerns in selected cases of merger prohibition.

In 2007, the Tribunal prohibited the proposed merger between Telkom SA Limited (Telkom) and Business Connexion Group Ltd (BCX). The primary acquiring firm, Telkom, is a telecommunications service provider and the target firm, BCX an information and communications company. The proposed merger was prohibited based on competition grounds , including concerns related to foreclosure, mixed bundling and removal of an effective competitor.

The merging parties did not advance public interest arguments. The Tribunal's decision to prohibit the merger was also mainly based on the competition analysis, although the Tribunal did pay attention to public interest concerns:

> "our decision to prohibit this merger, although, in our view, adequately grounded in the competition analysis, is bolstered by the negative impact that, we find, the merger will have on the public interest. "[16]

The Commission, opposing the merger, appears to have held a stronger view, namely that public interest concerns may strengthen a case for blocking a merger in the event that the competition assessment is inconclusive.

> "Even if it were thought that the extent and likelihood of harm to Neotel is too uncertain to justify a definite finding of a substantial lessening of competition on the probabilities, the tribunal would be entitled to have regard to the fact that Neotel's successful entry and the need for increased competition in the infrastructural market are vitally important to the public interest both in respect of the telecommunications sector (s12A(3)(a)) and in respect of the international competitiveness of South African industries (s12A(3)(d)) "[17]

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[16]Telkom SA Ltd and Business Connexion Group Ltd[case No. 51/LM/Jun06, p.92]

[17]Telkom SA Ltd and Business Connexion Group Ltd[case No. 51/LM/Jun06, p.92]

The Tribunal appears to have held that the assessment of competition and public interest concerns must be conducted separately. In this particular case, however, the Tribunal held that the competition contravention also impacts the public interest, as it occurs in a sector that was undergoing several public policy reforms at the time. Therefore, it would appear that a public interest assessment alone would not have been sufficient to prohibit the merger.

In another prohibited transaction, Mediclinic Southern Africa (Mediclinic), which owns several hospitals across South Africa, sought to acquire Matlosana Medical Health Services (MMHS) which owns and manages two multidisciplinary hospitals in a particular region of the country. The merger was prohibited in 2019 on both competition and public interest grounds. In its competition assessment, following a recommendation by the Commission to prohibit the merger, the Tribunal found that the merger would lead to a significant lessening of competition in the market for the provision of private multi-disciplinary acute inpatient hospital services. It thus concurred with the Commission, which posed the theory of harm that the merging of the two parties would lead to the elimination of an effective competitor.

In terms of the public interest assessment, the Tribunal emphasised that the transaction would adversely affect the health care sector, in terms of section 12A(3)(a) of the Act. The Tribunal held that healthcare is an essential public good and found that the merger would escalate costs for both insured and especially uninsured citizens – which were considered a vulnerable group in this case. Given the merger, uninsured citizens in the area would not have a choice of switching to lower – cost hospitals.

The remedies offered by the merging parties were not considered sufficient to address the anticompetitive concerns flagged by the competition authorities. It is unclear whether the merger would have been cleared in the absence of public interest concerns. Regardless, these concerns appear to have weighed heavily in the final decision to prohibit the merger.

5.0.5 Duration of public interest over time

In addition to their impact on the consistency of merger decisions – as measured the probability of conditional approval – public interest considerations may also prolong merger adjudication. It is important to have a general overview of how the mean duration of adjudication of public interest cases has changed over time. There are at least two reasons to expect a longer duration for merger adjudication involving public interest considerations. Firstly, these cases may be contentious, involving several intervenors focusing on the public interest concern(these may include labour unions or other government departments, who may not be ordinarily involved in merger proceedings). Secondly, these cases may require more complex or extensive analysis.

Fig. 4 provides an overview of mean case duration from 2006 to 2018, with a monthly frequency. The case durations are reported separately for involving public interest concerns and those without such concerns. Furthermore, the duration are reported based on the month in which the case was initiated.

The results show that the mean duration for merger cases involving public interest concerns is higher compared to non-public interest cases. Public interest cases take about twice as long to adjudicate in South Africa compared to merger cases that do not involve such concerns. In the econometric analysis below, we study whether these differences in duration are statistically significant and the extent to which these differences are related to particular merger characteristics.
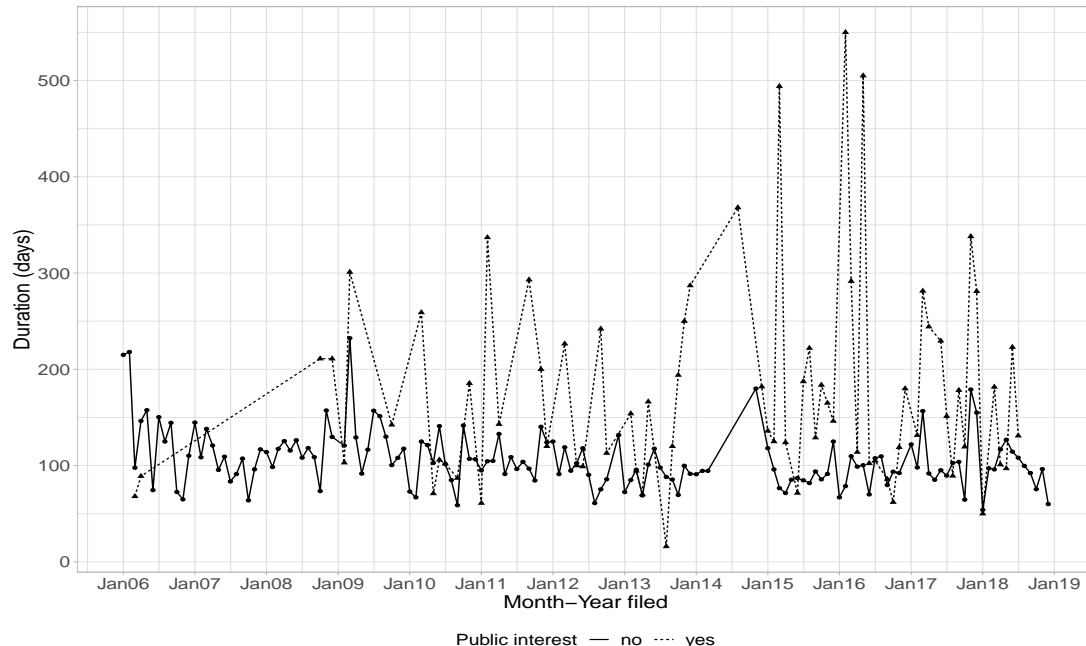
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Figure 4: Public interest duration over time

6 Econometric analysis

We now turn to econometric analysis to evaluate how public interest concerns in South African merger control affect the probability of conditional approval and the duration of merger review.

6.1 Duration

The adjudication of large mergers in South Africa proceeds in two stages: first, the Competition Commission evaluates the merger and recommends a decision and, second, the Competition Tribunal ratifies or otherwise amends the proposed decision. We consider the duration of merger review at the Commission and Tribunal levels separately, as well as jointly. Table 2 reports the results on the impact of various public interest concerns, as well as several control variables, on the duration of merger review. Results are reported separately for the Commission and Tribunal stages of merger review, as well as for the entire duration (combining both stages). For each stage of enforcement, we estimate 2 equations – one with an aggregate measure of public interest and another controlling separately for the various public interest considerations.

In the subsequent discussion, we focus on the results for the public interest variables and how these compare between the different enforcement stages.

The results show that across the different specifications *public interest concern* and most of the different public interest variables(*Employment, Ability of small firms to compete & impact on a particular industrial sector*) are statistically significant and positively related to duration at the Commission stage specifically and for the entire investigation.

For the (aggregate) public interest concern , as presented in specifications 1 & 3, the results indicate that merger cases involving public interest concern take approximately 13% more time

to complete (i.e. the duration of the entire evaluation is 13% longer). When considering the Commission stage alone, such cases take approximately 18% more time. This is relative to cases that do not have any public interest concerns. On average without distinguishing between different types of public interest concern we expect a merger case with any type of public interest concern to take more time to complete and more time to investigate at the Commission. It is noteworthy that the duration of adjudication at the Tribunal level appears generally unaffected by the presence of a public interest concern. Consequently, one may conclude that it is the Commission duration that is driving the increased overall duration of merger cases that involve public interest considerations.

Apart from the aggregate public interest concern variable, specifications 2, 4 & 6 also show duration differences for the different dimensions of public interest. Merger cases with employment concerns take approximately 8% longer. When considering the duration of review at the Commission alone, we find that such cases take 13% longer relative to cases that do not involve employment concerns.

Cases with concerns about the ability of small firms to compete on average 29% longer in comparison to cases without such concerns. For the Commission's initial investigation stage the number is 21%. From the given descriptives of the data, presented in an earlier section, we notice that cases with concerns about the ability of small firms to compete are about 10 in the sample and only appear in 4 different years. Therefore, for the few cases that featured in the given years, on average, they took longer to evaluate. Another thing we notice is that the cases with the longest duration among these types of cases are in the mining and quarrying industry. This industry predominantly has large firms and the longer duration is an indication of the initiative to protect small firms in this particular industry. Without getting into detail of the different contentions within the case litigations, two of these cases were conditionally approved strictly on public interest concerns to do with the ability of small firms to compete. No contraventions to the conventional competition factors were found.

As far as the public interest concern related to a merger's *impact on a particular sector* is concerned, we reach similar conclusions. The coefficients on this variable are also statistically significant across all the regressions except for the Tribunal duration regression, specification 6. The coefficients for this variable seem to give the largest estimates as compared to the estimates provided for the other dimensions of public interest. Relative to cases that are not concerned with the impact of a merger on a particular industrial sector such cases take significantly longer to evaluate. Even so, caution is advised when interpreting these findings, given that we observe only 5 such cases in the sample.

Finally, the results for the concern related to a merger's impact on *broad-black based economic empowerment (BBBEE)*. The results indicate that the variable is not significant in affecting duration at any of the segments of the merger control process. Similarly, the assessment of the ability of local firms to compete internationally is insignificant.

The entire evaluation duration and the Commission duration are shorter for merger cases involving employment concerns compared to merger cases in which there are concerns about the ability of small firms to compete and the impact on a particular industrial sector. The high number of public interest cases that are associated with employment may render enforcement bodies better equipped to assess such claims.

Additionally, employment is easily quantifiable – usually in terms of the number of retrenchments – meaning the evaluation and decision making would not be as complicated relative to other public

interest dimensions.

The regressions include control variables that are expected to affect duration to control for endogeneity and ensure that our coefficients on public interest are unbiased.

The first control variable captures the presence of a *competition concern*. The coefficients for this variable are significant across all 6 specifications and range between 19-34% among the different duration segments. For this particular variable, the coefficients at the Tribunal level of assessment seem to be significant. Therefore, public interest factors do not appear to prolong adjudication at the Tribunal stage, conventional competition factors do appear to increase the duration of review at this stage (compared to cases that do not involve competition concerns). Additionally, this indicates that after controlling for conventional competition factors, public interest factors still have an impact on duration for both the duration of the entire merger review process as well as the duration of the Commission stage.

The other variable in the specifications, included as a control, is *impose conditions*[18]. For the conditional approval variable, the coefficients for this variable range from 31-37% across the specifications – this means cases that are conditionally approved take on average approximately 31-37% more time to evaluate relative to cases that are approved without conditions across the different levels of the merger control process. Cases that have been conditionally approved likely have a competition or public interest concern that can be fixed by a remedy.

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[18]In the next section this variable is used as the independent variable

Table 2: Duration regressions

	(Entire evaluation duration)		(Commission duration)		(Tribunal duration)	
	Dependent variable:					
	(1)	(2)	(3)	(4)	(5)	(6)
Public interest concern	0.135*** (0.040)		0.181*** (0.048)		−0.060 (0.052)	
Employment		0.089* (0.045)		0.139** (0.054)		−0.072 (0.059)
BBBEE		−0.054 (0.172)		−0.063 (0.222)		−0.227 (0.227)
Ability of small firms to compete		0.289*** (0.071)		0.208*** (0.069)		0.341 (0.230)
Ability of local firms to compete		0.055 (0.153)		0.110 (0.186)		0.025 (0.088)
Impact on a particular industrial sector		0.717*** (0.128)		0.869*** (0.134)		0.111 (0.186)
Competition concern	0.338*** (0.042)	0.329*** (0.041)	0.343*** (0.044)	0.332*** (0.043)	0.190*** (0.069)	0.191*** (0.068)
Impose conditions	0.358*** (0.044)	0.374*** (0.043)	0.314*** (0.049)	0.337*** (0.048)	0.380*** (0.070)	0.374*** (0.070)
Vertical	0.130*** (0.028)	0.139*** (0.027)	0.156*** (0.032)	0.167*** (0.032)	0.084** (0.036)	0.085** (0.036)
Case load	−0.003 (0.003)	−0.003 (0.003)	−0.001 (0.004)	−0.001 (0.004)	−0.004 (0.003)	−0.005 (0.003)
Sector	yes	yes	yes	yes	yes	yes
Year	yes	yes	yes	yes	yes	yes
Observations	580	580	580	580	580	580
Log Likelihood	−279.827	−275.819	−387.965	−384.680	−464.762	−462.985
Akaike Inf. Crit.	629.654	629.638	845.930	847.360	999.523	1,003.970

Note: *p<0.1; **p<0.05; ***p<0.01

The control variable *Vertical* is also significant across all 6 specifications and the estimates suggest that vertical mergers take approximately 13-16% longer to evaluate at each level of the merger control process as compared to cases that involve either horizontal or conglomerate mergers.

The *case load* variable was also included but is not statistically significant in determining the case duration in any of the specifications.

Apart from the variables presented in table 2 the coefficients for year are discussed in the next subsection and coefficients are displayed in table 5 in the appendix.

6.1.1 Changes in duration

It is useful to consider duration differences between particular years in the sample, after controlling for all other factors. These are reported visually in figure 5 panel (a), with the mean estimate indicate as a dot, together with a 95% confidence interval. In panel (b) we present the same coefficients when interacting the year dummy variables with the (aggregate) public interest variable.

The graphs are presented side by side to allow comparison of the different coefficients and get insight into how much of the year on year duration is driven by public interest considerations. The main question answered by this graphic is therefore whether duration of merger adjudication has changed over time. From panel (a) we notice that duration has not changed over time, from 2008-2018: there are some years where the coefficients are significantly higher but, overall, the average duration does not appear to have changed. Additionally, given that the coefficients are not far apart and the confidence intervals overlap, there is weaker evidence of a change in duration over time. The second question is whether year on year duration as relates to public interest has changed over time. From panel (b), it also appears as though duration related to public interest has not changed over time.

The results show no evidence of year by year duration being driven by public interest cases. The rise of public interest considerations in South African merger control does not appear to have caused differences in duration on a year by year basis. Relating to public interest case duration, there is no evidence that cases involving public interest concerns have taken increasingly longer. Of course, this does not detract from our finding that public interest cases take considerably longer than cases not featuring any public interest concern. Therefore, the rise in the number of public interest cases still implies that a greater number of cases take longer to assess than they used to.
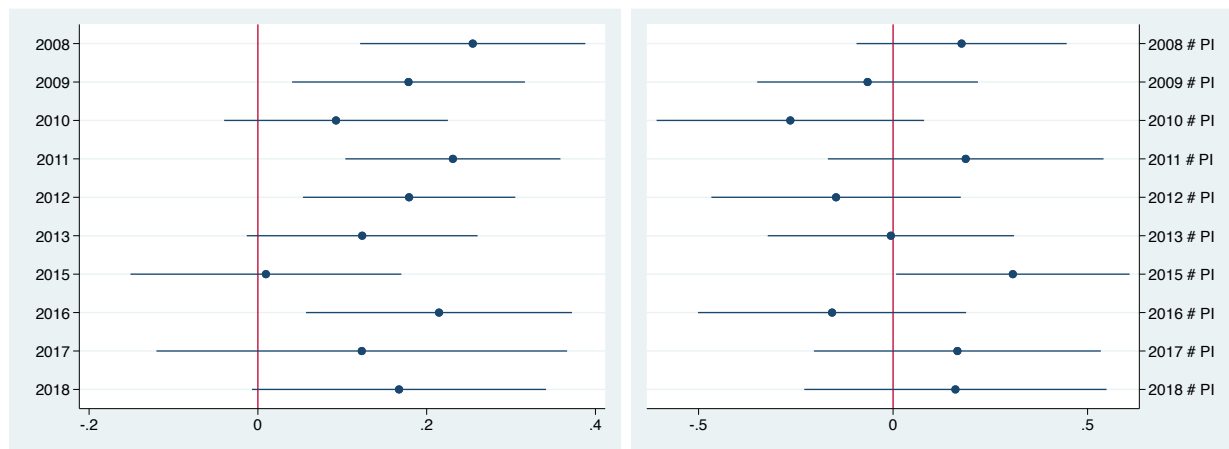
(a) Increase in duration for all cases relative to base year (%)   (b) Increase in duration for public interest cases relative to base year (%)

Figure 5: Public interest related duration vs all case duration coefficients

6.2 Probability of conditional approval

The section provides evidence as to the factors that affect the probability of a merger being approved subject to conditions, specifically focusing on public interest concerns.

The econometric analysis relies on a probit model. The probit model is a choice model — therefore in this application, the coefficients indicate the likelihood of imposing conditions on a case, based on a set of covariates.

6.2.1 Probit model results

Table 3 provides the estimation results for three specifications of the probit model. The first regression, regression 7, presents the results from a specification including only the public interest dimension variables and all control variables excluding sector and year. The next column presents the coefficient for regression 8, adding *sector* controls to the specification and subsequently *year* controls are added in regression 9.

In Table 3, the results show that all the public interest variables are statistically significant across all the regressions apart from *BBBEE*.

The *employment*, *ability of local firms to compete* and *ability of small firms to compete* are all significant and positive. That is, if a merger case featured any of the aforementioned concerns the case was more likely to be conditionally approved.

The *competition concern* variable is also positive and significant across all the regressions in table 3. Therefore, if a case has competition concern it is more likely to be conditionally approved as compared to when no conventional competition concern is present. The public interest variables are still significant even after controlling for competition concerns.

The *case load* variable seems to be significant in the last regression, regression 9. Focusing on the coefficient in regression 9 which included all the controls, the results indicate that the higher the number of active cases at the Tribunal, the less likely a case will be conditionally approved; the probability of imposing conditions decreases with an increase in the number of active cases. This means the competition authorities are likely to approve a case without conditions if there are a lot of active cases, consistent with previous findings (Garrod and Lyons, 2016, p.51).

The *year* categorical variable is significant for some years indicating that relative to the year 2006 there are differences in the probability of approvals for the different years. Given the factors that have been controlled for the significance of estimates between the years points towards a change in the overall decision-making process relative to the base year, 2006.

6.2.2 Second set of results: Marginal Fixed Effects

Given that the probit model is non-linear, the coefficients given in table 3 are not easily interpretable in terms of their effects.

Consequently, we present the estimated marginal effects for the different coefficients included in the probit regressions. Table 4 provides estimates for marginal effects relating to the different variables and these marginal effects are calculated holding all other covariates at their mean.

Table 4 is structured in the same way as Table 3 with the first regression, regression 10, including only the public interest dimensions with all controls except sector and year and successively adding until all are included in regression 12. The coefficients in table 4 can be easily interpreted in terms of magnitude and not only direction as is the case in Table 3.

An overview of the results in the table shows that all public interest criteria are statistically significant in raising the probability of imposing conditions with exceptions of *BBBEE* and *ability*

Table 3: Probit regressions

| | Dependent variable: | | |
| | (Probability of imposing conditions) | | |
	(7)	(8)	(9)
Employment	1.618***	1.581***	1.819***
	(0.144)	(0.152)	(0.191)
BBBEE	0.252	0.137	-0.0602
	(0.339)	(0.364)	(0.420)
Ability of small firms to compete	2.588***	2.643***	2.791***
	(0.461)	(0.469)	(0.505)
Ability of local firms to compete	0.565*	0.867***	0.901**
	(0.291)	(0.329)	(0.367)
Impact on a particular industrial sector	1.475***	1.459***	1.738***
	(0.425)	(0.471)	(0.551)
Competition concern	1.815***	1.879***	2.229***
	(0.118)	(0.128)	(0.164)
Vertical	0.00828	0.0562	0.192
	(0.109)	(0.119)	(0.133)
Case load	0.00955	0.00823	-0.0252*
	(0.00665)	(0.00731)	(0.0131)
Sector	no	yes	yes
Year	no	no	yes
Observations	584	564	526

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

of local firms to compete.

Beginning with the *employment* variable, the estimates given are significant across all the regressions. For an average case, where all other factors influencing a merger adjudication are held at their mean, proposed mergers with employment concerns have approximately a 36% higher probability of being conditionally approved relative to cases that do not have any employment concerns(see regression 12).

The other variable found in the regressions is *ability of small firms to compete*. This variable has estimates that are statistically significant across all 3 regressions and have high estimates – approximately 0.78. From regression 12, the results show that a proposed merger with a public interest concern raised about a potential impact on the ability of small firms to compete has a higher probability, 77%, of being conditionally approved relative to mergers where such concerns are not raised holding all other factors at their mean values.

The next public interest variable included in the regressions is the *impact on a particular industrial sector*. For this variable, the estimate in regression 12 is significant and the probability of being conditionally approved is about 39% higher relative to other cases.

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The *BBBEE* and *ability of local firms to compete* variables are insignificant and show no evidence of increasing the probability of imposing conditions on a merger.

As for the duration models, we also include a set of control variables, to the extent that our dataset allows. These are *competition concern*, *vertical* and *case load* . The *competition concern* variable estimate is significant across all regressions and is approximately 46%. This means on average, holding all other factors at their mean, cases that have competition concerns have approximately a 46% probability of being conditionally approved relative to cases that do not have a competition concern.

The *vertical* variable estimate is insignificant and has very small magnitudes across the regressions. On the other hand, the *case load* variable estimate is significant although the magnitude of the estimate is small. This means that for every additional active case that is present at the Tribunal during the time of the decision, if all other factors are held at their mean, the probability of imposing conditions decreases.

We consider two further control variables not reported in Table 4: a variable measuring the experience of the competition authority and a variable measuring the complexity of a merger case.

Experience was constructed by calculating the number of cases evaluated by the competition authorities in a particular sector before the filing date for any observed merger. When this variable was included in the regressions, its coefficient remained significant until the year fixed effects were included. We concluded that this variable is highly correlated with the year variable. Therefore, we can ascertain that the year fixed effects do control for any effects that case experience might have on duration or the enforcement decision.

In terms of merger complexity, a proxy for merger complexity was included. This was the variable counting the number of overlapping markets for any given merger. We theorised that the complexity involved in evaluating a merger increases depending on the number of overlapping markets that have to be assessed. The variable was include but its coefficient loses statistical significance once we control for sector. It appears complexity doesn't matter once you control for sector. Other sectors are more complex to analyse than other and have more product overlaps than other. Therefore, all these complexities are accounted for once we control for sector; complexity is tightly linked with sector and has no separate explanatory power.

For the year coefficients, we estimate auxiliary regressions with an encompassing measure of public interest to obtain marginal effects for year interacted with public interest. The odds ratio and marginal effects estimates for year are reported in Table 7 and are graphed in Fig. 6. From Table 7, regression 13 has coefficients obtained from a probit regression and 14 presents marginal effects. Therefore, we plot the coefficients reported in Table 7 regression 14. Panel (a) in Fig 6 provides the year coefficients obtained from the above-specified regression and panel (b) provides the coefficients interacted between year and public interest. Therefore, the coefficients in panel (a) indicate a year-specific difference in the probability of imposing conditions while panel (b) provides evidence of such differences specific to public interest cases.

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Table 4: Probit regressions: Marginal Fixed Effects at means

	Dependent variable:		
	(Probability of imposing conditions)		
	(10)	(11)	(12)
Employment	0.410***	0.375***	0.364***
	(0.0475)	(0.0488)	(0.0600)
BBBEE	0.0354	0.0159	-0.00352
	(0.0561)	(0.0468)	(0.0233)
Ability of small firms to compete	0.785***	0.789***	0.773***
	(0.111)	(0.115)	(0.141)
Ability of local firms to compete	0.0988	0.169*	0.123
	(0.0691)	(0.0951)	(0.0847)
Impact on particular industrial sector	0.401**	0.376**	0.394*
	(0.167)	(0.182)	(0.211)
Competition concern	0.451***	0.450***	0.465***
	(0.0346)	(0.0371)	(0.0413)
Vertical	0.000966	0.00597	0.0128
	(0.0128)	(0.0129)	(0.00991)
Case load	0.00111	0.000859	-0.00156**
	(0.000781)	(0.000772)	(0.000778)
Sector	no	yes	yes
Year	no	no	yes
Observations	584	564	526

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Fig. 6 suggests a shift in merger adjudication in recent years. Specifically, it shows a marked increase in the probability of imposing conditions, especially when focusing on public interest cases. When considering panel (b) it is clear that public interest cases from 2013 onwards had a likelihood of above 50 percent to be conditionally approved as opposed to earlier years. In fact, the final year shows a probability of imposing conditions of almost 80% for public interest cases.

Observing the coefficients over time, in the earlier years of the sample 2009-2012, panel (a) and (b) have low estimates most of which are insignificant. When compared to the later years 2013-2018, with an exception of 2017, the probability of imposing conditions in both panel (a) and (b) is considerably higher than in prior years 2009-2012[19]. This suggests that there has been a shift in merger adjudication in recent years and that the probability of imposing conditions on mergers has increased. Merger cases with similar characteristics across years would have different probabilities of imposing conditions. This applies to a greater extent if the merger cases involved public interest consideration. A merger featuring public interest concerns and filed pre-2013 would have a lower probability of being conditionally approved as opposed to a merger filed post-2013.

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[19]Years 2007,2008, 2010 and 2014 dropped due to collinearity.

(a) Prob. of imposing conditions:year
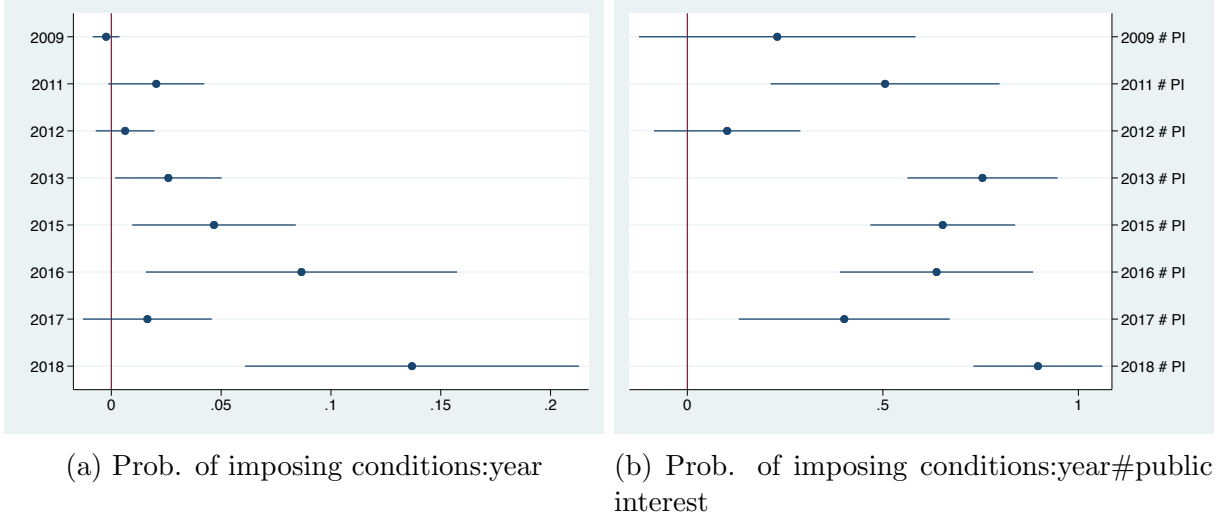(b) Prob. of imposing conditions:year#public interest

Figure 6: Probability of imposing conditions, by year

7   Discussion and conclusion

Non-competition objectives are an established part of merger control in many jurisdictions. Especially African countries have chosen to include explicit provisions for public interest considerations in their competition laws. Surprisingly little empirical research has been done to systematically investigate the impact of the inclusion of such objectives has on the predictability of merger decisions. To this end, this paper studies large merger decisions by South African competition authorities. We are interested in investigating, firstly, the impact of public interest considerations on procedural uncertainty, as measured by the duration of merger adjudication. Secondly, we are interested in the impact of these considerations on the probability of conditional approval. This would shed light on the extent to which the increased focus on public interest concerns may raise substantive uncertainty, but also on the broader direction of South African merger policy.

To answer the questions outlined, we compile the first systematic large merger database for a developing country, containing mergers before and following the global financial crisis. Our database covers the sample period 2006-2018 and includes variables that capture various merger characteristics essential for studying duration, probability of conditional approval and other merger control procedures.

The results from the empirical analysis can be summarized as follows. Firstly, there has been an increase in the number of cases involving public interest concerns. While employment concerns remain of central concern in many cases, the analysis suggests a rise in plurality.

Secondly, public interest cases take significantly longer to evaluate and conclude relative to merger cases that do not feature public interest considerations. Interestingly, this difference has remained relatively stable, and the duration of adjudication has not risen over time.

Thirdly, the results show that the competition authorities are more likely to impose conditions on proposed mergers that feature public interest concerns and that this effect is robust to the inclusion of sector and year fixed effects. Fourthly, there is evidence that cases involving public interest concerns are evaluated differently across years: in particular, the probability of imposing conditions on mergers has increased since 2013. The shift in the probability of imposing conditions

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for public interest cases is also reflected in an increased probability of imposing conditions for all cases. Unlike in earlier cases, where the competition authorities seemed to be taking a more conservative view towards public interest considerations (similar to the observation by Teague (2009)) and most of the enforcement decisions weighed heavily on the competition assessment. In recent years, the competition authorities seem to be weighing the public interest assessment of mergers to some extent on the same level as the competition assessment, even prior to the amendments to South African competition law. This is seen through the imposition of conditions, as relates to public interest, on more cases.

Considered jointly, these results suggest at least some cause for concern. Public interest considerations, with their broad scope, can be used by both authorities or other parties to affect merger decisions. They can slow down merger approval and they are less predictable. While the nature of South African society makes the inclusion of such objectives important, further work is necessary to safeguard the independence and predictability of the merger process. Notwithstanding, consistency needs to further be studied. An investigation into the source of the changes in the probability of conditional approval is required which is not possible with the current database based on publicly available information.

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Appendix

Table 5: Duration regressions: Sector and year coefficients

	Dependent variable:					
	(Entire evaluation duration)		(Commission duration)		(Tribunal duration)	
	(1)	(2)	(3)	(4)	(5)	(6)
Sector 01-03	0.096	0.104	0.168	0.174	0.003	0.004
	(0.103)	(0.102)	(0.114)	(0.114)	(0.078)	(0.078)
Sector 05-09	0.151**	0.144**	0.139**	0.130*	0.174**	0.180**
	(0.059)	(0.061)	(0.069)	(0.071)	(0.077)	(0.079)
Sector 10-33	0.362***	0.349***	0.439***	0.423***	0.076	0.073
	(0.057)	(0.054)	(0.071)	(0.069)	(0.072)	(0.073)
Sector 35	0.056	0.078	0.101	0.125	0.074	0.071
	(0.083)	(0.082)	(0.100)	(0.099)	(0.131)	(0.132)
Sector 36-39	0.243***	0.225***	0.517***	0.495***	−0.800***	−0.808***
	(0.057)	(0.057)	(0.062)	(0.062)	(0.102)	(0.104)
Sector 41-43	0.203*	0.204*	0.207	0.205	0.091	0.097
	(0.107)	(0.104)	(0.140)	(0.137)	(0.098)	(0.099)
Sector 45-47	0.245***	0.247***	0.300***	0.302***	0.049	0.048
	(0.043)	(0.043)	(0.050)	(0.051)	(0.050)	(0.051)
Sector 49-53	0.290***	0.286***	0.380***	0.373***	0.034	0.039
	(0.060)	(0.061)	(0.075)	(0.076)	(0.066)	(0.066)
Sector 55-56	0.290***	0.255***	0.394***	0.351***	−0.131	−0.141
	(0.045)	(0.047)	(0.057)	(0.059)	(0.086)	(0.089)
Sector 58-63	0.306***	0.302***	0.277***	0.273***	0.310***	0.302***
	(0.054)	(0.054)	(0.058)	(0.058)	(0.107)	(0.105)
Sector 64-66	0.137***	0.137***	0.143***	0.143***	0.086*	0.088*
	(0.037)	(0.037)	(0.047)	(0.047)	(0.052)	(0.053)
Sector 68	0.090***	0.086***	0.096**	0.093**	0.054	0.048
	(0.033)	(0.033)	(0.041)	(0.041)	(0.041)	(0.041)
Sector 69-75	0.250	0.105	0.422	0.237	−0.280	−0.237
	(0.308)	(0.228)	(0.306)	(0.223)	(0.422)	(0.362)
Sector 77-82	0.370***	0.368***	0.503***	0.500***	−0.115	−0.112
	(0.091)	(0.091)	(0.098)	(0.098)	(0.077)	(0.077)
Sector 86-88	0.705***	0.706***	0.759***	0.759***	0.309	0.310
	(0.052)	(0.055)	(0.081)	(0.081)	(0.293)	(0.296)
Sector 90-93	0.142	0.140	0.097	0.094	0.286**	0.288**
	(0.095)	(0.095)	(0.136)	(0.136)	(0.118)	(0.118)
Sector 94-96	0.362***	0.356***	0.380***	0.364***	0.561***	0.580***
	(0.059)	(0.060)	(0.071)	(0.072)	(0.081)	(0.084)
2007	0.201***	0.198***	0.271***	0.267***	0.036	0.039
	(0.066)	(0.066)	(0.082)	(0.082)	(0.076)	(0.076)
2008	0.260***	0.260***	0.339***	0.338***	0.036	0.039
	(0.065)	(0.065)	(0.083)	(0.083)	(0.078)	(0.078)
2009	0.167**	0.170***	0.251***	0.254***	0.058	0.056
	(0.066)	(0.066)	(0.081)	(0.081)	(0.078)	(0.078)

2010	0.065	0.069	0.147*	0.151*	−0.149**	−0.151**
	(0.064)	(0.063)	(0.084)	(0.084)	(0.072)	(0.072)
2011	0.252***	0.253***	0.313***	0.318***	0.027	0.023
	(0.062)	(0.062)	(0.081)	(0.081)	(0.077)	(0.077)
2012	0.131**	0.138**	0.232***	0.242***	−0.078	−0.090
	(0.063)	(0.062)	(0.079)	(0.079)	(0.069)	(0.069)
2013	0.085	0.073	0.163**	0.154*	−0.157**	−0.171**
	(0.063)	(0.063)	(0.082)	(0.082)	(0.071)	(0.071)
2014	0.237***	0.237***	−0.457***	−0.458***	1.093***	1.094***
	(0.056)	(0.056)	(0.073)	(0.073)	(0.060)	(0.060)
2015	0.034	0.035	0.066	0.064	−0.135*	−0.127*
	(0.074)	(0.074)	(0.097)	(0.097)	(0.074)	(0.074)
2016	0.152**	0.162**	0.221**	0.228**	−0.130	−0.114
	(0.075)	(0.076)	(0.097)	(0.098)	(0.089)	(0.089)
2017	0.186	0.176	0.245	0.230	−0.123	−0.120
	(0.116)	(0.117)	(0.158)	(0.159)	(0.097)	(0.097)
2018	0.128	0.147*	0.170	0.191*	−0.006	−0.002
	(0.082)	(0.082)	(0.112)	(0.112)	(0.092)	(0.092)
Observations	580	580	580	580	580	580
Log Likelihood	−279.827	−275.819	−387.965	−384.680	−464.762	−462.985
Akaike Inf. Crit.	629.654	629.638	845.930	847.360	999.523	1,003.970

Note: *p<0.1; **p<0.05; ***p<0.01

Table 6: Probit regression and MFX: Sector control

	Dependent variable:			
	(probability of imposing conditions)			
	Probit regression		MFX	
	(8)	(9)	(11)	(12)
Sector 01-03	0.192	0.583*	0.0190	0.0478
	(0.457)	(0.315)	(0.0520)	(0.0381)
Sector 05-09	0.489**	0.368	0.0620*	0.0243
	(0.211)	(0.253)	(0.0337)	(0.0210)
Sector 10-33	0.0680	0.155	0.00604	0.00819
	(0.231)	(0.254)	(0.0213)	(0.0150)
Sector 35	1.124**	1.277***	0.221	0.190
	(0.496)	(0.468)	(0.157)	(0.129)
Sector 41-43	0.234	0.645	0.0240	0.0561
	(0.361)	(0.433)	(0.0435)	(0.0578)
Sector 45-47	-0.0799	-0.135	-0.00622	-0.00528
	(0.226)	(0.285)	(0.0169)	(0.0102)
Sector 49-53	0.519**	0.428	0.0673	0.0301
	(0.253)	(0.358)	(0.0430)	(0.0349)
Sector 55-56	-0.103	-0.150	-0.00787	-0.00578
	(0.300)	(0.336)	(0.0213)	(0.0115)
Sector 58-63	0.509**	0.893***	0.0655*	0.0977***
	(0.225)	(0.218)	(0.0370)	(0.0353)
Sector 64-66	0.333*	0.401*	0.0371*	0.0274
	(0.177)	(0.220)	(0.0222)	(0.0183)
Sector 68	0.104	0.0953	0.00950	0.00475
	(0.156)	(0.182)	(0.0144)	(0.00926)
Observations	564	526	564	526

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 7: Probit regression and MFX: Year control

	Dependent variable:	
	(Probability of imposing conditions)	
	Probit	MFX
Year	(13)	(14)
2007	0.744**	0.0430*
	(0.374)	(0.0240)
2008	-1.402***	-0.00881
	(0.405)	(0.00750)
2009	-0.239	-0.00434
	(0.384)	(0.00768)
2010 (omitted)	-	-
2011	0.725**	0.0411**
	(0.339)	(0.0175)
2012	0.555	0.0259
	(0.361)	(0.0182)
2013	0.676**	0.0362**
	(0.339)	(0.0165)
2014 (omitted)	-	-
2015	1.065***	0.0870***
	(0.355)	(0.0275)
2016	0.972**	0.0721**
	(0.419)	(0.0355)
2017	0.438	0.0178
	(0.433)	(0.0189)
2018	1.906***	0.312***
	(0.366)	(0.0788)
Observations	526	526

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 8: Sampling: Final Sample

Type fo case	Target population	Sample population	Sample
Public interest	157	121	94
Non-public interest	980	761	490
Total	1137	882	584*

Note: *any deviations from the stated sample size in the regressions
is because of some missing variables