COMPETITION IN THE DIGITAL ECONOMY

FOR PUBLIC COMMENTS

competition commission
south africa

competition regulation for a growing and inclusive economy

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EXECUTIVE SUMMARY

RATIONALE FOR THIS PAPER

The arrival and rapid rise of the digital economy presents South Africa with an opportunity to reverse the pervasive, triple scourge of unemployment, inequality and poverty. But in order to harness the promised benefits of digitalisation South Africa must create a commercial and regulatory environment designed to extract those benefits and distribute them in a way that ensures inclusive economic growth, that is (1) increased and meaningful employment; (2) equality; and (3) shared prosperity.

Unfortunately, for all its promise, the digital economy in developing countries already threatens a new era of global concentration and, with it, the further marginalisation of vulnerable countries and businesses. Therefore, intentional regulation is required to avoid outcomes that could harm the development of small businesses, consumers and ultimately the economic growth so needed in South Africa's developing economy.

The need for intentional regulation has become all the more urgent with the advent of COVID19 which is set to move more products and services online at a rapid pace.

This paper sets out the ways in which South Africa's competition laws can be implemented to achieve equitable outcomes in the digital economy and the Competition Commission's intentions in this regard. Since competition policy alone is insufficient to attain the goals South Africa desires, this paper also sets out the features of the regulatory environment required in order to extract maximum benefit from the digital economy. An enabling regulatory environment – including sound competition policy – along with a vigilant, informed consumer base, innovative business culture, and willing commercial partners can turn the tide in South Africa and ensure that the digital economy delivers on the promise of inclusive economic growth.

SOUTH AFRICA'S DIGITAL LANDSCAPE

More than a market, the digital economy cuts across all markets in which goods and services utilise an internet base for production, distribution, trade and consumption by different agents. South Africa's level of participation in the digital economy is reflected in several key indicators set out in Table 1 below. For context, these numbers are compared with those of other developing economies in the BRICS network. These numbers were reported in early 2020 and are expected to increase significantly by 2021 due to the effects of COVID19 on online activity.

Like much of the world South African business, consumers and the South African government fully participate in the digital economy with the most used social media platforms, listed in order of popularity, being WhatsApp (89%), YouTube (87%), Facebook (83%), FB Messenger (61%), Instagram (61%) and Twitter (44%). South Africans participate in many digital platforms including search platforms, share-economy platforms and financial services. The most popular digital platforms around the world are widely used in South Africa but internet usage takes on a local flavour in financial service platforms and e-commerce, where some traditional stores with an online presence and Takealot – which is part of the Naspers group - dominate the scene.

Table 1: Key indicators of digital connectivity in BRICS countries

	Brazil	Russia	India	China	South Africa
Population	211.8 million	145.9 million	1.3 billion	1.4 billion	58.9 million
Mobile phone connections	205.8 million	237.6 million	1.06 billion	1.6 billion	103.5 million
Internet penetration	71%	81%	50%	59%	62%
Active social media users	66%	48%	29%	72%	37%
Growth in internet penetration in one year	+6%	-0.4%	+23%	+3.1%	+3.1%
Growth in active social media users in one year	+8.2%	0%	+48%	+1.5%	+19%

South Africa's financial technology platforms are dominated by the big four banks with Capitec, Tyme Bank and Discovery Bank increasing their presence by introducing innovative lifestyle solutions. There are also numerous start-ups in the broader financial payments space that are simultaneously disrupting and enhancing South Africa's financial service offering.

COMPETITION ISSUES IN THE DIGITAL ECONOMY AND THE COMMISSION'S APPROACH

There are novel features of the digital economy that shape interventions in digital markets and lead competition practitioners to approach competition regulation in the digital economy with a different mindset than we would the traditional economy. These features are:

1. the rapid and responsive innovation present in digital markets which are also the desired outcome of competition policy. Regulatory interventions, therefore, need to balance the need for inclusivity with the desire to maintain innovation;
2. the tendency towards concentration arising from first-mover advantage, data accumulation and network effects as well as exclusionary conduct. This requires competition policy to pro-actively identify and prevent entrenchment strategies before they are too difficult to reverse;
3. well informed consumers, coupled with ease of entry in some secondary and tertiary levels of digital markets, which means that consumers can define their preferred benefit with relative speed and accuracy. This again calls for competition agencies to balance the long term policy goals of economic growth with the more immediate stated preferences of consumers; and
4. the rapid pace of change which calls on regulators to constantly monitor developments and be willing to adapt their thinking as circumstances change.

Merger control

South Africa's history in assessing mergers in the digital economy suggests that until the *MIH/WeBuyCars* merger was prohibited, there may have been under enforcement in this area. This can be seen in the Commission's statistics which show that of the 87 mergers in digital markets notified between 2011 and 2018, 82 were approved without conditions and the remaining 5 were approved with public interest conditions. Notably, no conditions have been imposed to address substantive competition concerns. The complex, cumulative and global nature of digital mergers may be partly responsible for this state of affairs but the Competition Tribunal's prohibition of the merger between Naspers and We Buy Cars suggests this trend may be changing. In order to bring about a more robust assessment of digital markets the Commission intends to:

- issue a guidance note which clarifies the valuation of assets for digital companies in respect of merger thresholds;
- require specific tech companies that dominate different digital markets in South Africa to inform the Commission of all small domestic acquisitions, including investments in startups and global acquisitions of targets with some presence locally;
- prioritise digital markets within merger control for the 2020-2025 period;

- develop a practice note on the assessment of digital market mergers, updating the existing toolkits to account for the specific features of digital markets;
- issue a practice note on the assessment of merger creep and when such mergers would warrant intervention;
- ensure that domestically notifiable global tech mergers are concurrently filed in South Africa and other major jurisdictions such that the Commission may benefit from collaboration with other major jurisdictions in the assessment of the merger.

Cartel conduct

Digital markets present new forms of collusion and, consequently, new challenges for competition agencies whose aim it is to detect and investigate collusion. In particular, the use of algorithms – though creating a host of market efficiencies – can facilitate agreements on price and other trading conditions. The successful detection, investigation and prosecution of such cartels mean the Commission must have the requisite tools, skills and jurisdiction to do so. In order to achieve these outcomes the Commission intends to:

- develop appropriate tools for detecting digital cartels and assessing the effects of agreements amongst competitors;
- pilot a tender bid-rigging detection programme;
- build and staff a cartels forensic lab;
- develop guidelines for establishing the Commission's jurisdiction in cases of digital collusion that have an effect in South Africa.

Abuse of dominance and vertical restraints

Several features of digital markets inform the Commission's stance on the abuse of dominance and vertical restraints in digital markets. First, the global reach of digital markets means that conduct found to be anti-competitive in one jurisdiction could easily be considered anti-competitive in other jurisdictions. Second, digital markets tend to be "tipping markets" which means that there is a likelihood for the rapid expansion of one large dominant platform within a particular market. Examples are Amazon.com in the US, Alibaba in China and Takealot in South Africa. Finally, regulated incumbents tend to be at a disadvantage when global unregulated digital firms enter the local market. Cases against dominant digital companies are often challenging to investigate because of jurisdictional reach and the high bar set by legislation to prove an abuse-of-dominance contravention.

Forms of abuse in digital markets

The accumulation of big data – which has become a most valuable asset in the digital economy – coupled with network effects, can confer market power and a durable competitive advantage. Market power is not in and of itself a competition concern but this market power has become the source of several concerns raised in the digital economy including those listed below.

- Vertically integrated digital firms can benefit from owning a platform and, at the same time, competing with sellers on that platform. This enables the platform owner to use the information it collects from the seller to its advantage and the disadvantage of the seller;
- Vertical integration also incentivises self-preferencing: an act by which digital platforms will give preferential treatment to their services over the services of other companies and as such maintain their positions of dominance;
- Conglomeration has the potential to negatively impact inclusive growth, even where several big players are competing. This is particularly concerning in the South African context where market concentration levels are already high, and the likely impact of increased conglomeration raises barriers to entry for potential entrants;
- Online resale price maintenance has also been investigated in European cases resulting in decisions against manufacturers of consumer electronics;

Outside of the globalised search and social media digital markets, there exists a contestable digital space for South African firms to take part in. To ensure that this space remains contestable, the Commission intends to pursue the strategy set out below.

- Mapping the digital landscape of South Africa in order to inform proactive initiations on market conduct by dominant firms and to focus a future market inquiry or research into specific digital markets;
- Proactive investigations against conduct, by dominant online firms, that may be excluding rivals and entrenching dominance;
- Issue guidelines, where appropriate, in respect of conduct which the Commission deems likely to contravene the Competition Act.
- Institute a scoping study, impact study or market inquiry into digital markets
- Global cooperation and coordination, with other competition agencies, in respect of addressing market conduct of firms such as Google, Facebook and Apple which also dominate domestically, and potentially also second-tier globally important digital firms such as Uber, Airbnb, Bookings.com.

REGULATORY ISSUES IN THE DIGITAL ECONOMY AND THE COMMISSION'S APPROACH

Besides the competition issues raised in the paper, there are regulatory issues that link with competition policy. As mentioned, in order to achieve lasting benefits from the digital economy, the regulatory environment should be conducive to inclusive growth in the ways set out below.

- South Africa must invest in digital technology and its infrastructure with a sense of urgency. Access to data services and indeed the digital economy remains highly problematic as there is a real threat of not just economic exclusion, but also exclusion from full participation in society. Current plans to increase broadband connectivity in under-served communities, the rollout of 5G networks, the creation of an open access network (WOAN) that provides access to essential facilities, infrastructure sharing and rapid infrastructure deployment, and digital terrestrial television are opportunities for growth in the ICT sector which should stimulate local manufacturing.
- We should avoid regulatory responses that distort markets. Regulation should adopt a technology-neutral approach, without differentiating whether firms traditionally operate their business or whether they make use of digital platforms. The Commission advocates for regulatory responses that are geared at levelling the playing field and reducing regulatory barriers to entry and expansion.
- While consumer protection law remains the main legislation to address potential big data harm to individual privacy - as opposed to competition law - personal information has become the currency with which consumers purchase services from digital markets where the product is "free", which makes the protection of personal information an issue that extends beyond consumer protection laws. This warrants a more collaborative effort across regulators in developing countries, especially where there are separate enforcement mandates, like in South Africa on competition, consumer protection and privacy. Hence, to better achieve the common goals and avoid inconsistent approaches, it is recommended strong cooperation and close dialogue between these institutions.
- Beyond protecting personal information, participants in the digital economy should take heed in commercial interactions with IT, service providers, to maintain and preserve their data sovereignty. They should impose minimum controls on the information being stored and hold firms accountable for what they do with the data and assign responsibility and accountability for specific databases.
- Competition and industrial policy require updating for the digital age to help start-ups to effectively compete with dominant platforms. Several industrial policy instruments can enable competition in the digital economy including investment, incentive schemes, supporting national champions in strategic sectors with conditions attached to state support, public procurement (local content designations), trade defence instruments (tariffs and anti-dumping duties) and appropriate use of competition protectionist approaches such as reviews of acquisitions by foreign firms. These strategic industrial policy levers should feature in a national digital framework that will act as a roadmap for the wider industrial effort in the digital economy.
- The shift to an Internet-based economy necessitates digitization and synchronisation of e-government services such as e-health, online education revenue collection and finance. The government can leverage on advances brought upon by technological innovations (such as cloud computing, internet of things (IoT), big data, and mobile innovations) to drive the success of digitizing government and delivering public services to its citizens.
- The disruption brought about by digitization in banking and financial services are monumental; each segment of the value chain- from currency to

banking and insurance- has been affected. This calls for a rethink in the manner in which the financial system is defined and regulated. Whereas licenses were the traditional barriers for new entrants in financial services, "big learning" from big data is now the regulatory frontier. Whilst the historical markers for financial stability focused on incumbent players, digitization requires a regulatory shift that encompasses financial networks (which include firms in telecoms, e-commerce) more broadly. Definitions of institutions which are "systemically important" must be reviewed, with the advent of BigTech.

- In the developing world, there is some evidence to support the idea that targeting and prioritising specific industries for large scale and accelerated digital penetration can spur on faster, deeper and more meaningful growth in digital markets than if digital development were to occur without prioritisation. It is in financial technology, for instance, that both India and China report the most potential for growth in the digital economy. South Africa could benefit from a strategy of prioritising specific industries for accelerated digital growth in order to achieve maximum effectiveness.

- Due to the COVID19 pandemic, the rapid shift to the online economy will reduce the timelines for regulation and action. A decisive and proactive stance needs to be taken in order to ensure the balance of economic forces favour a shift to facilitating entry and a more competitive digital market. This requires removing the entry barriers, including those erected by dominant platforms, and preventing consolidation at this critical moment in the development of the online economy in South Africa.

CHAPTER 1

INTRODUCTION

"Digital advances have generated enormous wealth in record time, but that wealth has been concentrated around a small number of individuals, companies and countries. Under current policies and regulations, this trajectory is likely to continue, further contributing to rising inequality. We must work to close the digital divide, where more than half the world has limited or no access to the Internet. Inclusivity is essential to building a digital economy that delivers for all."

António Guterres, Secretary-General United Nations (2019)

1.1 Who Is This Publication For?

This publication is drafted to inform government and corporate stakeholders of the Competition Commission's (Commission) our approach to regulating competition in the digital economy. The publication aims to inform South African regulators of the Commission's position on the digital economy to facilitate coordinated regulatory and advocacy efforts in this area. The publication is also intended to assist business to anticipate the Commission's broad stance on corporate conduct in the market place to enable business to distinguish between pro-competitive and anti-competitive practices in the digital economy thus empowering them to comply with the objectives of competition law and policy; report anti-competitive conduct and apply for exemption from the application of the Competition Act No. 89 of 1998, where necessary.

1.2 Why The Need For This Publication?

The purpose of an economy is to organise the allocation of available resources[1]. Unfortunately, for all the achievements of the industrial economy, it has also resulted in the skewed allocation of available resources. South Africa is a case in point as it exhibits high levels of inequality, poverty and unemployment. The arrival and rapid rise of the digital economy as a disruptive force presents an opportunity to reverse these outcomes and achieve an equitable allocation of available resources thus shifting us from inequality to equality, from poverty to shared prosperity and from unemployment to meaningful participation. These would be the attributes of an inclusive digital economy.

However, as much as the digital economy may beneficially disrupt existing concentrated markets, digital markets are themselves prone to extreme 'winner takes all' outcomes due to first-mover advantages combined with 'tippy' market dynamics. This frequently plays out on a global interconnected and virtual stage, resulting in tech giants dominating entire areas of global commerce, such as social media, search, digital advertising, mobile operating systems and e-hailing. Digital markets, therefore, threaten a new era of global concentration and the marginalisation of developing country businesses unless purposefully regulated.

If South Africa is to harness the promised benefits of a digital economy, we must regulate intentionally. We need unified direction, enabling legislation and a business environment poised for innovation and dynamic growth. Competition policy and regulation have a major contribution to make in this regard and this publication explains how a pro-competition ethos can help to bring about the desired results. Of course, competition regulation alone is insufficient to achieve these outcomes; therefore this publication also speaks to how other regulators and corporate stakeholders can coordinate and contribute to more equitable, inclusive and competitive outcomes from the digital revolution.

The ultimate purpose of this publication is reflected in how each section ends: with a set of strategic actions that the Commission and its stakeholders can take in moving us closer to a more inclusive digital economy for the benefit of all South Africans.

1.3 What Is The Digital Economy?

More than a market, the digital economy cuts across all markets in which goods and services utilise an internet base for production, distribution, trade and consumption by different agents. While a market is considered to be one stream within an economy – for example, a financial market – the digital economy has become an entire economic system running parallel to the industrial economy and threatening to, one day, overtake the industrial economy as the primary base for economic activity.

The dynamic and ever-evolving nature of the digital economy means that commonly-used concepts may carry different meanings to different stakeholders. For this reason, we have defined the concepts that we frequently refer to in the remainder of this guide.

4IR
The fourth industrial revolution is a new era of innovation in technology that will enhance human-machine relationships, unlock new market opportunities, and fuel growth across the global economy. Previous industrial revolutions are listed as (1) the use of water and steam power to mechanise; (2) the introduction of electricity; and (3) the use of information technology and the internet to digitalise operations. The digital economy is thus a foundational part of the fourth industrial revolution.

App
Short for application, an app is a computerised program that runs inside another digital service. Many mobile phones allow apps to be downloaded, leading to a burgeoning economy for modestly priced software.

Algorithm
A set of instructions or procedures used to accomplish a task such as creating search results in Google. In the context of search, algorithms are used to provide the most relevant results first, based on this instruction.

AI
Sometimes called machine intelligence, artificial intelligence is intelligence demonstrated by machines, in contrast to the natural intelligence displayed by humans. The term may also be applied to any machine that exhibits traits associated with a human mind such as learning and problem-solving.

Back-end
The back-end of a website is the part hidden from the view of the regular website visitor. The back-end generally includes the information structure, applications and the content management system.

Bandwidth
This term can refer to two different things: the rate at which data can be transferred or the total amount of data allowed to be transferred from a web host during a given period. It is generally calculated in bits-per-second (bps) alternatively kilobits-per-second (kbs).

Big data
Refers to the use of predictive analytics, user behaviour analytics or other advanced data analytics methods to extract value from a large data set. The advanced analysis of large data sets can find new correlations to spot business trends, prevent disease, combat crime and so forth.

Big Tech
Big Tech refers to the major technology companies such as Apple, Google, Amazon and Facebook, which have inordinate influence. They are also referred to as GAFA and high tech.

Blockchain
A system in which a record of transactions made in bitcoin or another cryptocurrency is maintained across several computers that are linked in a peer-to-peer network.

Browser
This is the program that a website visitor is using to view a website. Examples are Safari, Firefox, Internet Explorer, Google Chrome and Opera.

Cloud computing
An increasingly popular computing model in which information and software are provided on demand from over the internet rather than staying on a local computer. Cloud computing is appealing because companies can reduce the amount they spend on their computer servers yet their storage capacity can quickly and easily expand as the company grows. Examples of cloud computing applications are Google Docs, Yahoo Mail and Amazon's EC2 and S3.

Cost per action
Also referred to as CPA. A pricing model in which the advertiser is charged for an advert based on how many users take a specific, pre-defined action such as buying a product from an online store based on viewing the advert. This is the 'gold standard' for advertisers because it most directly matches the cost of an advert to its effectiveness. In contrast, the cost-per-click model charges companies based on how many users click on a link and the cost-per-mile model charges companies based on a specified number of views.

E-commerce
Is short for electronic commerce and refers to the process of buying and selling goods online through websites. Goods sold could be physical, requiring shipping, or digital products delivered through an app like music or a program.

Fintech
Short for financial technology, fintech refers to computer programs and other technology used to create, support or enable banking and financial services.

Internet
A global computer network providing a variety of information and communication facilities, consisting of interconnected networks using standardised communication protocols.

Operating system
A basic layer of software that controls computer hardware, allowing other applications to be built on it. The most popular operating systems today for desktop computers are Microsoft Windows, Mac OS X and Linux. For smartphones, the most popular are iOS and Google Android.

Platform
A digital service that facilitates interactions between two or more distinct but interdependent set of users (whether firms or individuals) who interact through the service via the internet.

The digital economy operates globally offering endless opportunities for innovation and trade yet presenting new challenges to a world designed around physical borders. Its global reach is evident in diagram 1 below while diagrams 2, 3[2] and 4[3] focus on the extent of digital penetration in South Africa. South Africa's level of participation in the digital economy is also reflected in several key indicators set out in Table 1 below. For context, these numbers are compared with those of other developing economies in the BRICS network.

It is worth noting that diagram 4 was constructed in a pre-COVID19 world. Post COVID19 it is probable that South Africa will experience higher internet penetration than previously predicted due to an accelerated shift to remote working and online eCommerce to reduce contagion risks.

Figure 1: Digital usage around the world in 2020

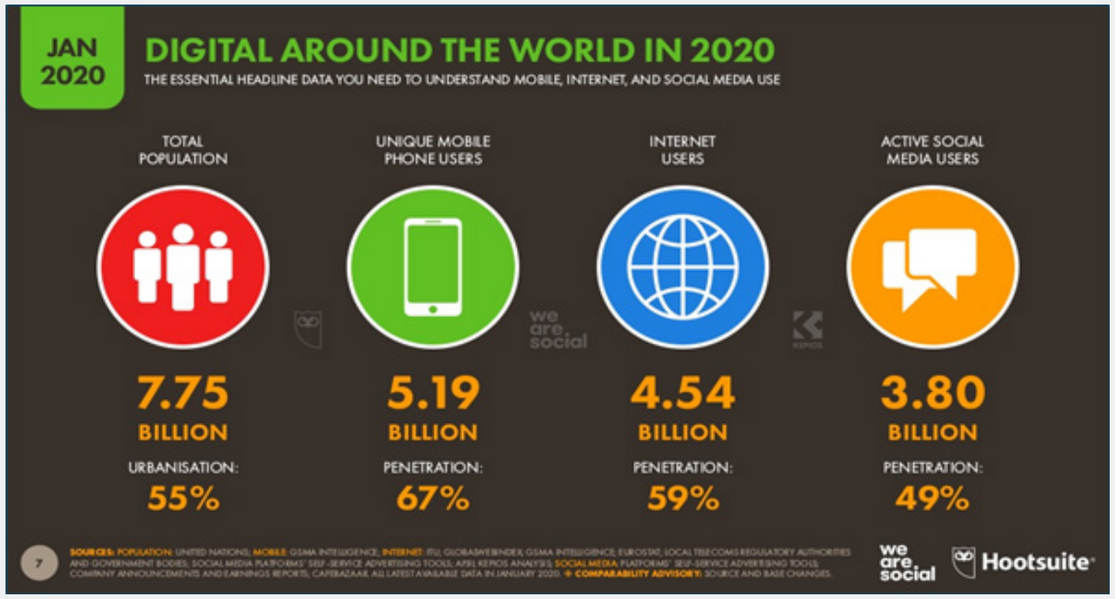

Figure 2: Digital penetration in South Africa in 2020

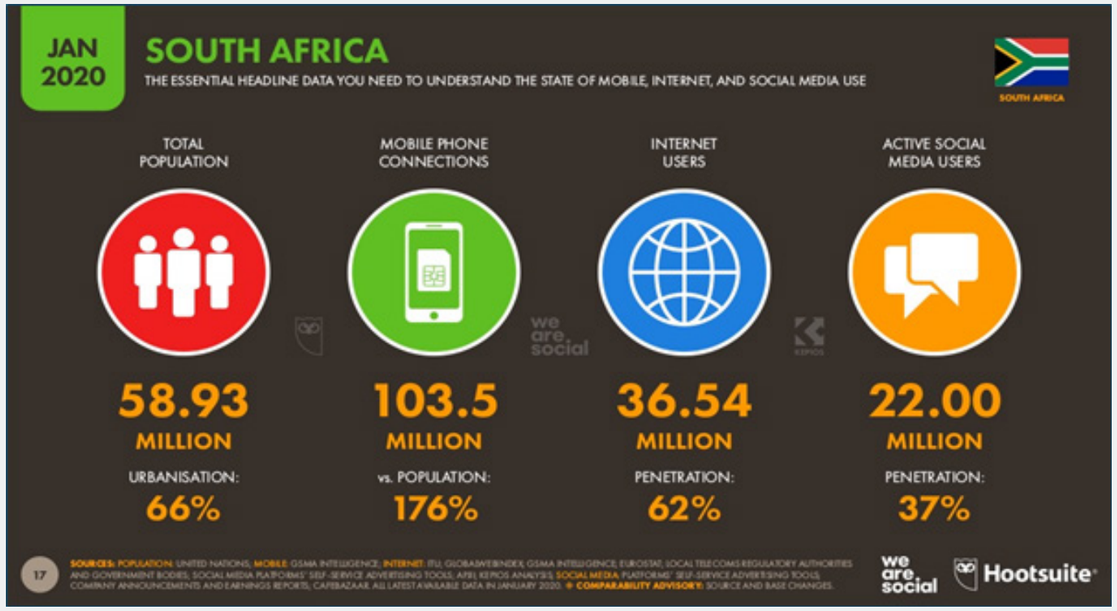

Figure 3: Growth of digital penetration in South Africa in one year

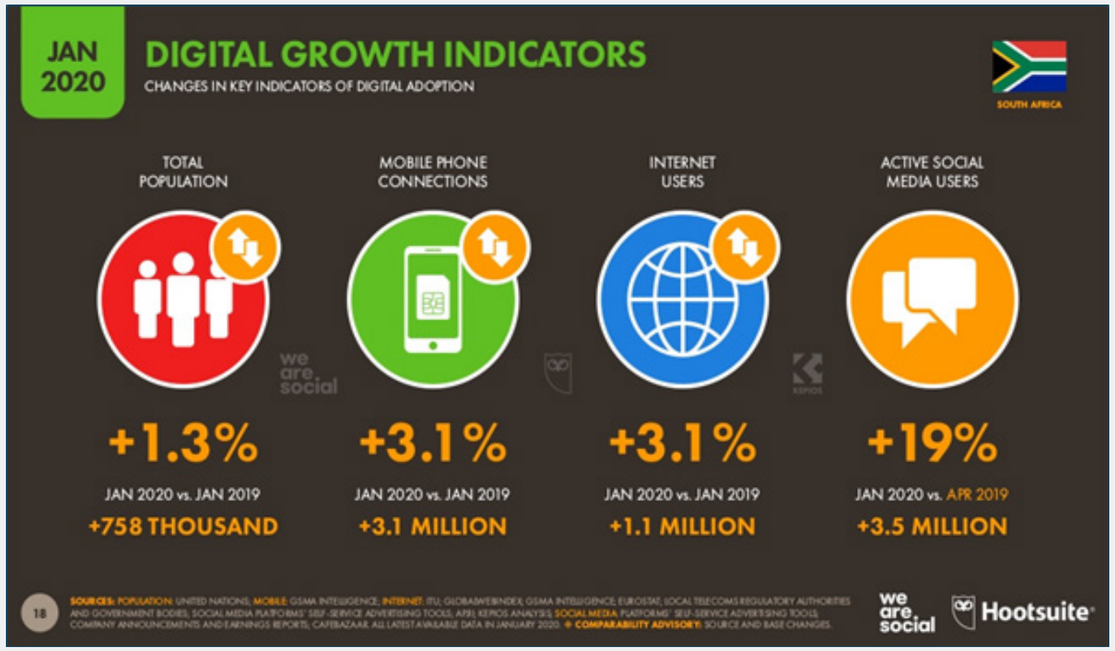

Figure 4: Internet usage predictions for South Africa

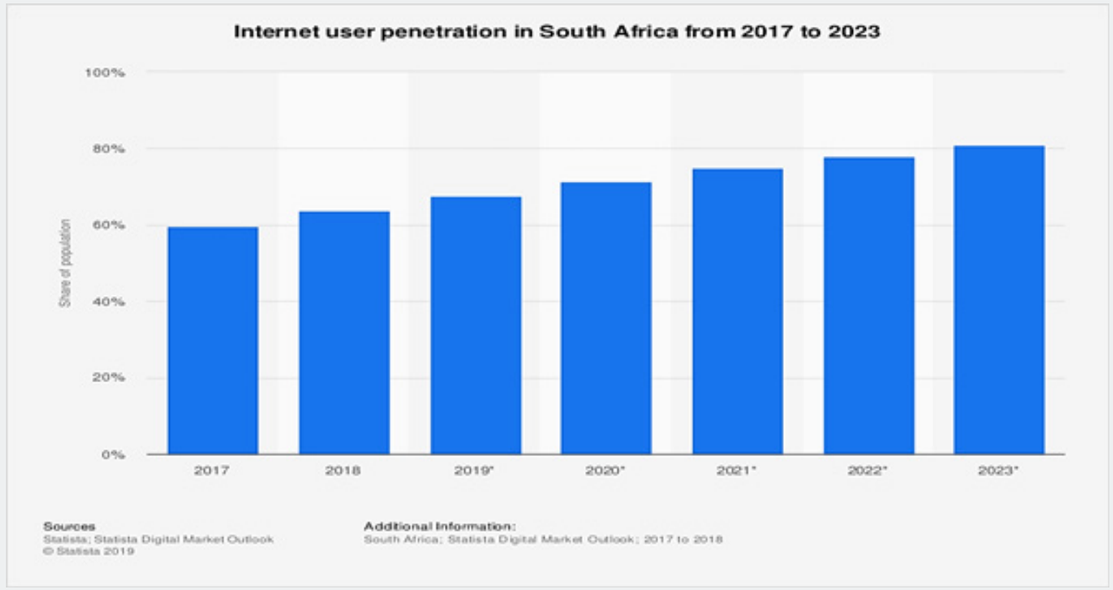

Table 1: Key indicators of digital connectivity in BRICS countries

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Growth in internet penetration in one year	+6%	-0.4%	+23%	+3.1%	+3.1%
Growth in active social media users in one year	+8.2%	0%	+48%	+1.5%	+19%

1.4 STRUCTURE OF THIS PUBLICATION

While it is tempting to compartmentalise South Africa's industrial economy and assess the digital state of each sector, it should be noted that the status and importance of South Africa's individual sectors was based on their respective contributions to the industrial development of the country. For example, agriculture was considered a key sector for development because it was a significant provider of employment and a major earner of foreign exchange.[4] In contrast, the potential for the digital economy to present growth opportunities must be viewed through a different lens. Given the extent of connectivity that is brought about by digitalisation, a change in one digital area can impact other digital areas, consequently sectors, with great speed. Blockchain is an example of a digital advancement developed specifically for financial transactions but rapidly grew in its usefulness for different sectors. Therefore, rather than approach the digital economy concerning the industrial economy, this publication focuses on the main over-arching digital economy themes that have emerged from the Commission's interventions across various sectors and through different levels of the value chain. As such this paper examines the nature of South Africa's digital economy, explores the competition issues presented by the digital economy and considers the regulatory enablers required to achieve the outcomes we desire.

If South Africa can attain a coordinated and pro-competitive approach to the main areas in the digital economy, it is the Commission's view that we could harness the promised benefits of the digital economy and achieve what the industrial economy has, as yet, failed to do: greater levels of equality shared prosperity and improved levels of employment.

1.5 THE DIGITAL ECONOMY AND COMPETITION POLICY

The global digital value chain spans from the base infrastructure to the end user. Every level within this value chain presents opportunities and threats for competitiveness. In this publication, we highlight those opportunities and threats as they apply to digital platforms, fintech, industrial policy, data-rich markets, big data and cloud computing.

At the outset, however, it is important to state that although competition remains a firmly entrenched vehicle for South Africa's growth and development, certain features of the digital economy lead us to approach competition regulation in the digital economy with a different mindset than we would the industrial economy.

The first characteristic of the digital economy is the rapid rate of technological change and innovation, providing scope for market disruption through new entrants and new products to the benefit of consumers. Competition policy and law need to encourage and facilitate this innovation, whilst also ensuring these technologies are accessible to consumers. We observed in previous interventions by the competition authorities that certain markets, such as the telecommunications infrastructure markets, are characterised by high barriers to entry due to high sunk costs and regulatory requirements. For instance, infrastructure roll-out is expensive and operators would be required to achieve economies of scale and scope sufficient to recoup these sunk costs. We also note that for sectors such as health, banks, stock markets, financial services and manufacturing - where the accuracy and currency of data are critical - even a slight delay or degradation in quality in the provision of infrastructure could lead to anti-competitive effects. The delay in the provision of critical infrastructure can also impede the ability of a firm to service its customers.[56]

In a developing country context, this does require a deliberate focus on ensuring the infrastructure layer of the digital economy is both affordable and has broad coverage if meaningful access is to occur. This is in the context where the underlying technologies are becoming increasingly concentrated (such as 5G networks, mobile operating systems). It also requires that the complementary assets for entry and innovation, including the skills and venture funding for new start-ups, are developed locally in an inclusive manner to ensure that it is not just existing dominant firms (both old industrial and new tech firms) that take advantage of opportunities presented by the new digital economy.

Infrastructure sharing is also a crucial element which can enable new entry and operators to minimise costs. For example, a new entrant may not need to obtain its own infrastructure, however, it can lease it from a service provider who owns the infrastructure. The design of an infrastructure sharing model will depend on factors such as the market's competitive structure, market conditions, network symmetry and the regulatory stance. In this regard, regulatory interventions can help overcome market failures to maximise social welfare. The Competition Act also makes provisions that prohibit a dominant firm to refuse to give a competitor access to an essential facility when it is economically feasible to do so. An essential facility is defined in the Act as "... an infrastructure or resource that cannot be reasonably duplicated and without access to which competitors cannot reasonably provide goods or services to their customers".

The second characteristic of the digital economy is the tendency to both product/service line and conglomerate concentration which is subsequently difficult to reverse once entrenched. This is in part due to economic features of these markets such as first-mover advantages from the positive network effects of two-sided markets and further product development advantages from data accumulation. However, it is also due to deliberate strategies to retain early leadership (such as MFN pricing rules with partners), acquire competitive threats (so-called 'killer acquisitions') and leverage dominance in some areas to exclude or limit rivals in others (such as self-preferencing of data and platform access). This requires competition law to not only consider new theories of harm but also to act proactively against entrenchment strategies to keep markets competitive and prevent irreversible concentration. It also requires competition policy tools to facilitate access by potential entrants to enabling assets such as the private consumer data accumulated and held by companies.

Thirdly, consumers tend to have more information in the digital economy than they do in the industrial economy. This means that consumers: their needs and their response to a product or service, naturally play a far bigger role in the innovation that takes place in digital markets. This factor, coupled with the relative ease of entry for innovative firms into some secondary and tertiary levels of digital markets, means that the digital economy at times presents the ideal competitive environment. Moreover, competition regulation favours innovation and is ultimately designed for the benefit of consumers. Since innovation is integral to digital markets and consumers can define their preferred benefit with relative speed and accuracy in digital markets, this could necessitate a less interventionist approach from regulators in some instances.

Finally, another characteristic of the digital economy is its rapid rate of change. Developments take place quickly; definitions change and parameters shift with more speed than the industrial economy is accustomed to. The Commission thus acknowledges that its position may change with time. For this reason, this publication is titled Version 1.0 in anticipation of changes to regulatory thinking that may occur in future and developments in current and future case law.

CHAPTER 2

DIGITAL PLATFORMS IN SOUTH AFRICA

"[Digital] platforms can have both positive and negative effects on development, but the net impact on Africa will ultimately be shaped by the responses of industry, regulators, government and civil society."

Insight2Impact, Global Resource Centre

2.1 What Is A Digital Platform?

There are varying definitions for a digital (online) platform which have evolved over the years given the dynamic nature of this market. The Commission considers the definition proffered by the OECD to be sufficient for this discussion: 'an online platform is a digital service that facilitates interactions between two or more distinct but interdependent sets of users (whether firms or individuals) who interact through the service via the internet'[7].

The OECD goes further to describe digital (online) platforms as 'a range of services available on the internet including marketplaces, search engines, social media, creative content outlets, app stores, communications services, payment systems, services comprising the so-called "collaborative" or "gig" economy, and much more.'[8]

It is clear from the above description that digital platforms can include a wide range of services including those by commercial players, non-profit organisations and government. Further, it is not restrictive on the types of users making use of the platforms. These comprise individuals as well as corporate entities. Another feature of digital platforms from this definition is that they entail two- or multi-sided markets.

Although digital markets are not new, they tend to be significantly different from traditional markets and introduce new ways of doing business. Firstly, business models based on technology and product/service platforms are radically altering industry structure and the terms of competition in a range of industries. Secondly, digital platforms introduce new sources of data that can be used to create new insights, products, and services. Viewed superficially these factors present efficiencies and consumer benefits but do not come without their disadvantages, not only to consumers but also for business and regulators.

Digital platforms should also be understood in the context of what is often referred to as the digital ecosystem. The ecosystem depicts a value chain approach in which even though digital platforms play a significant role often controlling it, they are not the only component.[9] The ecosystem is described as a combination of interoperable applications, operating systems, platforms, business models and hardware that are linked through data and that do not necessarily belong to one entity. An example of a digital ecosystem is Apple's iPhone and iPad, its iOS operating system, Apple TV, the App Store, with Apple's own and other interoperable apps.[10]

The nature of digital markets is such that there exists a high degree of interdependency and interoperability between different platforms provided by different vendors. In mobile communications, for instance, if end users wish to log onto a social media platform such as Facebook or WhatsApp, their smartphones must be operated by a smartphone operating system such as Android or iOS. Such operating systems are run by platforms known as chipsets that are pre-installed to a mobile device. An example of this is the ARM software for the Android operating system.

Digital platforms provide the mechanism for bringing together a set of parties to interact online.[11] A common descriptor of this type of interaction is the distinction made between two-sided platforms and one-sided platforms. One-sided platforms represent a more traditional and linear relationship between seller and buyer. One-sided platforms cover all other platforms using an internet base to offer products and services. Two-sided digital platforms, also referred to as 'transaction platforms' in UNCTAD's 2019 report on digital markets, connect distinct but interdependent users to each other, through the platform, much like newspapers and magazines do. Well known examples are Uber, which connects drivers to customers needing a ride; AirBnB, which connects homeowners to consumers needing accommodation and Facebook, which connects advertisers to potential buyers as they browse through their social connections. The two-sided nature of these platforms has implications for competition regulation which are set out further below. For this reason, this paper makes a distinction between one-sided and two-sided digital platforms. Table 2 below provides examples of two-sided platforms and describes the sets of interdependent users connected through the platform.

Table 2: Examples of two-sided digital platforms

Digital platforms	Examples
Online search platforms	e.g. Google and Bing provide an online search platform between web users and advertisers
PC operating systems	e.g. Microsoft provides a software platform that allows transactions between independent software vendors and users
Smartphone operating systems	e.g. Android and iOS provide an interface between users of the device and content providers such as application developers
Social networking platforms	e.g. Facebook provides an interface for social networking and advertising
Online shopping platforms	e.g. Amazon connect customers willing to buy products online with product suppliers of the products
Video game platforms	e.g. Sony PlayStation or Nintendo provides software tools that enable publishers to develop games and a device on which consumers can play the games

Source: Adapted from Kuoppamaki, P (2015) Tying and two-sided digital platforms

Other common features of digital platforms are listed below but may not necessarily apply to all digital platforms.

- Disruptive innovation - many platforms arise as a result of disruptive innovation to use technology to offer a new and current service in a novel manner.
- Network effects - there are network effects that persist in digital platforms. These occur in these two- or multi-sided markets where, for instance, advertisers or businesses benefit more as the number of buyers and subscribers increase on a platform and vice versa.
- Cross subsidisation - some platforms offer their services to users for free to increase subscriptions. They can then subsidise their income with the income derived from advertisers who wish to advertise on the platform.
- Data generation - digital platforms tend to have access to and generate a lot of data through their various users, which may be used to enhance products or services, enabling continued leadership, or develop new products or services.
- Winner-takes-all or winner-takes-most - there are strong first-mover advantages for platforms offering new services or novel ways of bringing the service to users.
- Switching costs - switching costs may be high depending on the customisation and functionality of a platform. However, some platforms, like social media platforms, allow for multi-homing by users thus switching costs become less relevant.

- Global reach - as these platforms are available on the internet, they are largely available across the globe where users can access the internet and are thus not limited by national boundaries. The low or no cost of replication in new markets also provides the impetus for rapid globalisation to take advantage of the first-mover advantages.'

The rise of digital platforms has allowed for the creation of third-party vendors providing complementary products and services for specific platforms, including cloud computing that stores large amounts of data, and artificial intelligence platforms that process data collected from customers into usable information for advertisers. Notably, vendors such as cloud computing providers will not fall within the above description of digital platforms as they are only one-sided and provide services only to the entity requiring the storage. However, they form an important part of the digital economy infrastructure and enabling environment.

2.2 Digital Platforms In South Africa

The platforms active in South African are described in Table 3 below. The list is not exhaustive but is illustrative of some of the different types of platforms found in South Africa. Moreover, the categories are as defined for this discussion and are not prescriptive.

Table 3: Digital platforms active in South Africa

Digital platforms	Examples	Function
Online search platforms	Google, Yahoo and Bing	Provide an online search platform between web users and advertisers
PC operating systems	Microsoft	Provides a software platform that allows transactions between independent software vendors and users
Smartphone operating systems	Android and iOS	Provide an interface between users of the device and content providers such as application developers
e-Government platforms	eTshwane and Department of Home Affairs	Used by government departments or spheres to deliver online services to citizens
Messaging platforms	Outlook, Google Mail, Facebook Messenger, WhatsApp, WeChat	Provide for messaging services
Share-economy platforms	Uber, Bolt, InDrive, Point A2B, Yookoo Ride, Taxi Live Africa, CheufHer, YoTaxi, AirBnB, SweepSouth	Provides for peer-to-peer based acquiring, providing, or sharing access to goods and services (including accommodation, transport, cleaning services)
Social networking platforms	Facebook, LinkedIn, Pinterest, Twitter, Instagram, SnapChat, WhatsApp, YouTube, TikTok	Provide an interface for social networking and sharing of content
Online shopping platforms	Takealot, Superbalists, Bid or Buy, Zando and Amazon	Connect customers willing to buy products online with product suppliers of the products
Financial services platforms	All major banking apps, StokFella	Provides for various financial services including transactional banking, crowdsourcing, obtaining loans, investing, access to stock markets
Streaming platforms	Netflix, Showmax, Amazon Prime TV	Provide for sharing of audio-visual content including movies and TV series
Video game platforms	Sony PlayStation or Nintendo	Provides software tools that enable publishers to develop games and a device on which consumers can play the games
Foodservice platforms	UberEats and MrD	Provide for the delivery of food service from restaurants
Payment platforms	SnapScan, Zapper, Masterpass, PayFast	Provide a payment system between merchants and customers

2.2.1 Share-economy platforms

Share-economy platforms typically operate in two-sided markets. The sharing economy involves short-term peer-to-peer transactions to share the use of idle assets and services or to facilitate collaboration. The sharing economy often involves some type of online platform that connects buyers and seller. It is a rapidly growing and evolving phenomenon but faces significant challenges in the form of regulatory uncertainty and concerns about abuses.[12] Arguably the most well-known share-economy platforms are Uber and AirBnB which connect under-utilized vehicles and accommodation, respectively, to consumers in need of these services.

Concerning e-hailing platforms such as Uber, these platforms use a global positioning system (GPS) technology to connect the nearest active linked operator to a commuter who needs the service. E-hailing services provide upfront pricing to passengers that are agreed on before the journey begins and automatically generates an electronic notice with the cost of the trip and a map of the route to be taken. Passengers can pay with a debit or credit card, cash or prepaid voucher.[13]

With platforms that provide for sharing of accommodation, Airbnb is highly active in South Africa and is the dominant accommodation matching service. Using this service, consumers can select accommodation option from various private and corporate owners for rental without making use of travel agencies.

Other platforms that have joined the share-economy model, and are growing in popularity, are listed below:

i. co-working platforms: companies that provide shared open workspaces for freelancers, entrepreneurs, and work-from-home employees in major metropolitan areas;

ii. peer-to-peer lending platforms: companies that allow for individuals to lend money to other individuals at rates cheaper than those offered through traditional credit lending entities;

iii. fashion platforms: sites that allow individuals to sell or rent their clothes;

iv. freelancing platforms: sites that offer to match freelance workers across a wide spectrum ranging from traditional freelance work to services traditionally reserved to handymen.[14]

2.2.2 Social media platforms

Social media or social networking sites are internet-based services that allow individuals to construct a public or semi-public profile within a limited forum, to articulate a list of other users with whom they share a connection, and to view and traverse their list of connections and those made by others within the system. Some of these are two-sided platforms while others operate linearly.

In South Africa WhatsApp, Facebook, YouTube, Facebook Messenger, Instagram and Twitter are amongst the most used social media platforms.[15] South Africa currently does not have a locally-based social media platform.

The platforms provide a service to consumers, for instance, to connect and share information. However, it is notable that some of these platforms have become a means by which advertisers can reach users. It is a profitable relationship for both sides, as users receive information about products they may wish to purchase, and advertisers can reach their customers.

2.2.3 Online retail

Online retail is a component of the wider digital transformation of the economy. While it presently still represents a smaller proportion of all retail sales, these sales are increasing significantly in some product categories such as books, electronic goods and clothing and online sales are growing rapidly overall.[16] From the period 2018 - 2019, over 55% of regular internet users reported purchasing a product or service online, with 38% of these purchases being transacted via mobile devices. The total number of people purchasing consumer goods via online platforms increased by 4.2% from 2018-2019.[17]

South Africa has a range of online retailers across several products. Takealot is one of the largest online retailers in South Africa in terms of market value, revenue and volumes. Takealot is part of internet and media conglomerate, Naspers, which operates in more than 120 countries. It has the highest share of online traffic in South Africa having surpassed its international rivals eBay and Amazon as well as its local marketplace rival Bid or Buy and Makro, the largest online competitor from the bricks and mortar space.[18]

2.2.4 Audio-visual streaming platforms

Streaming media refers to multimedia that is constantly received and presented to an end-user while being delivered by a provider. By contrast, downloaded media refers to a process by means of which the end-user

obtains the entire file of content before watching or listening to it. Popular streaming services include Netflix, Hulu and Prime Video.

Live streaming is the delivery of internet content in real-time much as a live television broadcast over the airwaves via a television signal.

From a competition perspective, the availability and rapid growth of streaming platforms offer many benefits for consumers but presents regulatory challenges which we consider in more detail further on.

2.3 Big Data, Data-Rich Markets And Cloud Computing

With the advent of digital platforms comes the era of big data, data-rich markets and the need to store the resulting amounts of data via cloud computing. These segments of the digital economy have arisen because of the growing need to support and enhance the functionality of digital platforms and themselves present a set of competition regulation challenges.

The digital economy and the use of platforms have increased the value and usability of data. However, this does not entail that digital platforms are the only entities that can process and use data. For many years, firms in the traditional economy have been collecting and using data, for instance, about their customers. What the digital economy has brought about is the ability to use tools such as AI and other software to discern other patterns not previously seen that can now be monetised.

Data-driven firms are those that employ a data-centric approach in their business. These can be described as those firms that make use of data in their strategic decisions regarding their operations. They can determine the most efficient way of serving their customers. They can go as far as being able to customise services or products for customers or even predict consumer behaviour based on what they have learnt from the data. The data collected and used by data-driven firms can be described as 'rich data'. These firms include both traditional firms and digital platforms. Notably, governments are data-rich entities as they collect volumes of information about their citizens and can use this information in the provision of public services.

Big data is commonly understood as the use of large-scale computing power and technology to collect, process and analyse data characterised by a large volume, velocity, variety and value. Big data can thus be used by firms to forecast market trends and develop new products and services.[19] [20]

Some commentators state that big data should properly be considered a two-stage process. For instance, in the first stage, a firm collects the data, whilst in the second stage, it transforms the data into some benefit that ultimately increases profitability. It is argued that this classification allows linking big data to familiar concepts of competition such as economies of scale, learning by doing, and research & development. [21]

The operations conducted by big data users, or data-rich entities, are supported by ICT infrastructure providers. ICT infrastructure providers not only develop adequate software to handle big data but they also provide cloud computing and storage, where companies can store and process their data.

In the digital economy data is a class of asset that varies widely in its competitive significance and value. Data can be a product or an input for some other product. However, given the technology required to collect and analyse certain types of data, proprietary data exists as it is necessary to compete effectively, thereby opening the possibility of anti-competitive conduct or anti-competitive effects.[22] It is also notable that the position that data takes in our society has brought about questions regarding the ownership of data, its value and its use in various markets across the world. The regulation and privacy concerns arising from big data are discussed further below.

Owing to the central role of data in powering the digital economy, market power - coupled with the ability and incentive to use it - is the most common competition concern arising from data-rich entities and other companies that own and process big data. It could be argued that data is to the digital economy what oil is to the industrial economy[23]. Therefore, any company with significant influence over this all-important resource would need to be kept under scrutiny to avoid it abusing its market power to the detriment of rivals and the competitive process as a whole.

2.4 Financial Technology And Banking

Fintech platforms also typically operate in two or multi-sided markets. Even outside the digital space, financial transactions often involve more parties than only the buyer and seller. They may involve an agent, a financier and a processor. In the same way, financial technology involves multi-sided markets which present their own competition concerns.

Broadly, financial technology or 'fintech' refers to any company using the internet, mobile devices, software technology or cloud services to perform or connect with financial services. Many fintech products are designed to connect consumers' finances with technology for ease of use, although the term is also applied to business-to-business (B2B) technologies as well.[24]

Initially, fintech referred to technology that was applied to the back-end systems of banks or other financial institutions - but has since grown to encompass a plethora of other applications that are more consumer-focused. In 2020, it is possible to manage funds, trade stocks, pay for food or manage insurance through this technology and often from a smartphone.

Examples of fintech go beyond traditional definitions of money, financial services or banks. They are challenging the meaning of these very concepts as they grow. For instance, crowdfunding platforms allow internet and app users to send or receive money from others on the platform and have allowed individuals or businesses to pool funding from a variety of sources all in the same place. Instead of having to go to a traditional bank for a loan, it is now possible to go straight to investors for support of a project or company. And while their applications range from family and friends funding to fan and patron funding, the number of crowdfunding platforms have multiplied over the years.

Blockchain and cryptocurrency are hallmark examples of fintech in action. Cryptocurrency exchanges like Coinbase and Gemini connect users to buying or selling cryptocurrencies like bitcoin or litecoin. Blockchain services like BlockVerify help to improve the security of online transactions. Mobile payment systems, such as PayPal, present even more examples of fintech. The list goes on to include technology used in insurance, robo-advising, stock trading and even personal budgeting apps for home use. SnapScan, WalletDoc and Nomanini are three examples of fintech that operate in South African.

The fintech value chain covers banking, banking infrastructure, blockchain, business tools, crowdfunding, digital currencies, donations, financial research, insurance, investments, lending, money transfers, payments, personal finance, security services and regulation technology. These can be condensed as illustrated in Figure 5[25] below.

Figure 5: The Fintech Value Chain

The emergence of fintech has caused digital disruption in banking and financial services, with mostly positive outcomes for competition. Fintech is a driver for efficiency and competition in many respects. With more efficient operational design and the employ of modern technologies, fintech's have the advantage of being agile in their ability to respond to consumer preferences and trends. Unencumbered by old technologies or physical branch networks, they can challenge traditional banks with regards to their product offering and the delivery of the service. Fintech's have less of a regulatory burden than traditional banks and can customise their offerings since they often operate in niche spaces in the market. The points at which they compete with traditional banks for customers are plenty, including ease of banking, efficiency, convenience, variety and consumer choice, among others.

There are various ways in which Fintech firms enter markets, adopting various strategies to suit the circumstances[26]: One option of for the incumbent (e.g. a traditional bank) to accommodate the Fintech firm: this is a tactic employed if the Fintech is not considered a significant threat and the incumbent is still able to profit from the Fintech's dependency on its regulatory infrastructure, such as high switching costs or interchange fees payable.

Another market entry tactic is for the incumbent to enter into partnerships with the Fintech. In this scenario, the Fintech firm commits to remain small, providing the incumbent with its offerings whilst being able to ride on the scale, distribution channels and licenses of the traditional bank. Alternatively, the incumbent bank can acquire the FinTech altogether. Finally, an incumbent could launch its own rival to the Fintech to compete head-to-head. The incumbent may even fight to prevent the entry of the FinTech by using various abuse of dominance mechanisms, such as denying access to infrastructure.

Locally, one of the main drivers of fintech is that traditional financial institutions are supporting and adopting these innovations by investing in-house and partnering with start-ups. The traditional financial institutions that are making significant headway in augmenting their businesses practices with the use of technology include South Africa's big 4 banks, Standard Bank, ABSA, Nedbank and FNB, as well as Capitec and Discovery Bank (launched in 2019). The big 4 have embraced fintech as part of their strategic direction for the future primarily through more efficient distribution channels and to compete head-on with disruptors.[27] Capitec's business model is centred on simplicity and affordability, with an increasing focus on out of branch transacting, cloud computing, big data and analytics, blockchain, AI, biometrics and quantum computing.[28] Discovery Bank, a recent entrant into the banking space but a giant in medical insurance, is marketing itself as the world's first behavioural bank by using incentives to reward good financial decision-making.[29]

Discovery Bank is particularly noteworthy from a competition perspective, as its genesis is demonstrative of the ability of tech- and data-enabled firms to leverage off their capabilities in one market to enter and compete effectively in another. This is because significant investment has already been made to collect, process and analyse behavioural data; and behavioural insights on factors relevant to the entry market have already been garnered in the primary market. Indeed, Discovery Group Chief Executive, Adrian Gore stated that Discovery's approach to banking is *"to do nothing differently"*, Discovery Bank is built *"on the same architecture"*[30] and the same way Discovery Health, through the Shared Value Insurance model, addresses the negative impact of human behaviour on health risk and the sub-optimal design of insurances systems will be built into Discovery Bank in the context of financial risk and banking systems.[31]

While large companies have become increasingly active in the fintech space, the key force behind the explosive growth of fintech in South Africa is, however, the numerous start-ups that are simultaneously disrupting and enhancing financial services.

Box 1: BigTech disruptions in banking

The emergence of fintech has led to the restructuring of the banking industry, this disruption has a potentially deeper impact should "Big Tech" firms enter the banking fray. "BigTech" refers to the large, dominant digital firms such as Google, Apple, Amazon and others.

Big Tech firms have the capabilities to quickly and seamlessly enter many banking segments, including payments and settlements, lending and insurance. Unlike smaller Fintech firms, BigTech has the economies of scale which positions it equivalently with traditional banks. Most banking segments are markets where network effects are present- a competitive advantage for BigTech.

BigTech firms have superior technology, free of legacy systems that traditional banks have; moreover, they have leaner operations as they are typically unencumbered by physical branch networks that incumbent banks have. With their business being platform-based, they have developed a friendly consumer interface, assisted by deep insights on consumer needs arising from their Big Data capabilities. Big Tech firms have the financial muscle and sturdy balance sheets to meet banking regulatory requirements.

One example of BigTech entering the financial market can be found in Google's launch of Google Checkout, which operated in competition to PayPal from 2006 to 2013; Google Wallet, which replaced Google Checkout; and finally Google Pay which replaced Google Wallet in 2018. The service allows people to send and receive money from a mobile device or desktop computer at no cost to either the sender or the receiver. Google Wallet became the subject of a lawsuit in 2011 when PayPal accused two former employees of giving trade secrets to Google shortly after Google terminated talks with PayPal about powering payments on mobile devices.

The entry of BigTech in banking brings new sources of systemic risks: the first is the potential blurring of boundaries between commercial and banking activities. Should Big Tech enter banking, the risk for contamination of bank and non-banking activities in the platforms remains high.

Big Tech's advantages on consumer data means that they can engage in behavioural biases such as price discrimination, which may not always be transparent based on the structure of their business models. This raises the issue of the adequacy of consumer protection laws- are typically spread across different regulators (e.g. financial regulators, consumer & competition regulators - to safeguard consumer interests. Finally, the standard banking-related risks such as failure of third-party providers and cyber-attacks remain relevant for Big Tech firms should they enter into banking, expanding the scope of risk areas over which regulators must oversee. Moreover, one may witness increased risk-taking by incumbent banks as they respond to the competitive pressures of Fintech and BigTech on their profits.

How do policymakers design appropriate policy tools in the context of digital disruption? The rules which govern how banks interface with commercial activity should be reviewed or clarified in a way that prevents such risks, whilst enabling competition. It is ultimately a question of balance.[32]

CHAPTER 3

COMPETITION LAW IN DIGITAL MARKETS

As an open economy, South Africa has seen the same shifts to a digital economy as observed elsewhere. The openness has resulted in many global tech giants establishing a commanding position in the domestic digital economy, especially in search and social media despite no substantial investments in the country. In some other areas where investment is required, either global companies have been absent (such as Amazon in delivery) or they have moved rapidly to establish a domestic lead before their business models are copied (such as Uber or Airbnb). In more localised markets such as classifieds (horizontal and verticals) and delivery infrastructure, local start-ups and larger local tech firms have competed to control the leading position with consumers. They have been joined by existing businesses seeking to make the digital transition and building on pre-existing non-digital positions. This is especially the case in fintech, with banks and insurance giants using their data and gatekeeper role to be at the centre of innovation, but also in other areas such as classifieds where the media position is leveraged into digital from paper.

This disruption has in many instances been positive for competition and consumers, providing new services at lower costs. The local market is in its infancy and is benefitting from a stage of new entry and penetration pricing models to establish leadership in many more localised digital markets. However, evidence from other jurisdictions is that this period can give way to entrenchment and concentration which reduces contestability and lowers consumer welfare. Competition law has an important role to play in ensuring that the markets remain competitive in emerging markets such as our own lest we end up in the predicament faced by more mature markets.

The proliferation of digital platforms and their regulation is however not without its challenges. The major discourse in competition law relating to digital markets currently is whether the current competition regime and its tools are sufficient to deal with competition problems in digital markets. This chapter examines the different elements of competition law enforcement from the perspective of digital markets, identifying the challenges, the emerging thinking globally and the strategic direction the Commission will take.

3.1 Merger Control

3.1.1 Challenges resulting in under-enforcement

Merger regulation in South Africa, similar to other jurisdictions, speaks to the weighing up of the identified substantial lessening of competition against possible efficiency benefits. However, merger control is subject to two types of errors[33]. These are; false positives which occur when a merger that should have been allowed to go through is blocked as well as false negatives, which occur when a merger that should have been blocked is allowed to go through.[34] The objective of merger control is to limit both types of errors.

However, in the context of digital mergers, the Furman report found that *"there have been no false positives in mergers involving the major digital platforms, for the simple reason that all of them have been permitted. Meanwhile, it is likely that some false negatives will have occurred during this time. This suggests that there has been underenforcement of digital mergers, both in the UK and globally"*.

South Africa's merger control regime reflected a similar trend until the recent *MIH/WeBuyCars* merger was prohibited, suggesting a degree of underenforcement and the risk of false negatives. Until 2019, the Commission had investigated 87 mergers in the digital markets space, prohibited none and had not even imposed conditions to address any substantial competition concerns.

Table 4: Trends in notified mergers in digital markets, 2011 – 2018

Total digital markets mergers notified	87
- Mergers approved without conditions	82
- Mergers approved with public interest conditions	5

As highlighted by Motta and Peitz (2020)[35], competition authorities tend to be ill-equipped to deal with the competition concerns attending mergers in digital industries. They attribute this, firstly, to the fact that under the current merger notification thresholds, the vast majority of competition authorities would not be in a position to even review some mergers in digital markets as the turnover thresholds may not fully capture all relevant mergers in this space. This is because the usual thresholds for merger notification are typically turnover or asset-based and a nascent firm operating in the digital space may not necessarily record a significant turnover nor will it have sufficient assets to trigger merger notification. This is further compounded by the existence of a merger creep situation where countless small startups are acquired, which are collectively significant but potentially not individually so. The Furman report (2019) observed that "over the last 10 years, the 5 largest firms have made over 400 acquisitions globally. None has been blocked and very few have had conditions attached to approval, in the UK or elsewhere, or even been scrutinized by competition authorities".

A further challenge for the Commission has in the past been that of jurisdiction in merger control as many of the social platforms are internationally based. For example, the Facebook/WhatsApp merger in 2015 was not notifiable in South Africa because WhatsApp did not generate any revenue in the country. More recently the Google/Fitbit merger was not notified until the Commission insisted on the notification. While South Africa does have the power to investigate small mergers within six months after implementation, these do not trigger a mandatory notification to the competition authorities. However, even where jurisdiction exists, there can still be a challenge in halting global merger activity that might have a disproportionate effect on the jurisdiction of developing countries given the relative unimportance of those markets to these firms or the limits of developing countries' jurisdictional reach. There have been instances historically were a global firm threatened to cease servicing South Africa rather than be subject to a merger prohibition or remedy.

Even where digital mergers are notifiable and assessed, a key challenge experienced in merger assessment is that of contemplating or investigating relevant theories of harm particular to mergers in the digital space, especially where the acquisition targets are smaller startups. Whilst outlining theories of harm is not novel nor is it unique to mergers in digital markets, the difficulty with mergers in these markets is that merger policy in digital industries must take specific industry characteristics into account when they are key to evaluating the competitive impact of a merger. In some digital merger cases, access to data plays an important role, network effects figure prominently, or firms involved in the merger operate multi-sided platforms offering 'free' services to consumers.[36] As investigators in authorities do not necessarily have the in-depth knowledge of the business models used by companies in digital markets, there is an inherent difficulty in outlining the specific theory of harm that accounts for the particular industry characteristics observed in digital markets. This likely makes sustaining findings of substantial lessening in competition attributable to a merger harder.

Furthermore, as authorities make use of specific tools to assist in guiding their decisions and investigations into mergers, such tools may also be ill-designed for digital merger control. This may include relevant market determination (for competitive constraints), market shares (for dominance), future dynamics based on predictable developments (such as known entry/exit), and established theories of harm typically based on identifying potential

price effects. Digital market investigations require certain tweaks to these tools if decisions are to be accurate and effective. For instance, constraints on innovation or data privacy rather than price may be relevant for free services, or the price of advertising and not the service itself; market power from data that is unique and non-replicable rather than a share of revenue; a market definition which determines the extent to which old economy models interact with online versions which are disruptive and may replace them.

In particular, the removal of potential competition and conglomerate effects are more prevalent sources of competitive harm in digital markets and yet have largely taken a back seat in merger control assessment in industrial markets where their likelihood of substantial harm has been questioned. In developing markets, global firms frequently look to acquire the largest local home-grown operator rather than enter themselves. Such mergers deny consumers the benefit of additional competition and a potentially less concentrated market in the future. Another source of potential competition is from the move into adjacent markets as leading tech firms pursue conglomerate synergies. Such acquisitions give the conglomerate platform a foothold in an adjacent market that can be leveraged later, but also deny consumers of entry and more competition.

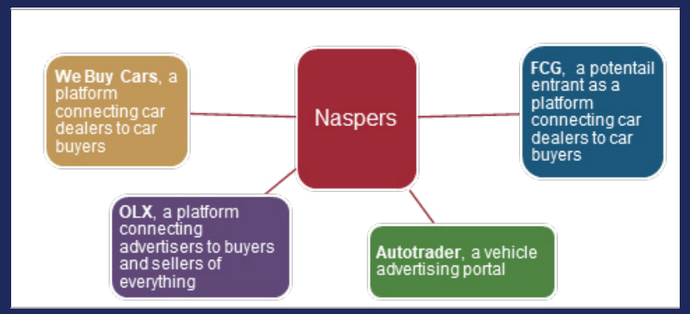
The common competition concerns that have arisen internationally, when considering mergers and acquisitions in the digital economy can be summarised as follows:

- ***Removal of a potential competitor:*** The capability for platforms to process data can be leveraged to enter and transform related markets with relative ease. Thus, even in mergers where the merging parties do not compete in the same market, if they have mastered the ability to process data, they can still provide an indirect competitive constraint on each other. Digital platforms that are seeking to acquire start-ups or emerging competitors, for instance, may do so with the express purpose of closing them down. These are the so-called "killer acquisitions".[37] These strategic acquisitions may play a role in entrenching dominance and advancing scope advantages. By expanding into related markets, a firm may remove possible rivals to its core products. For instance, such strategic behaviour in merger activity has played an important role in entrenching Google's position in search and search advertising[38] with acquisitions of companies such as YouTube and DoubleClick. Facebook's acquisition of Whatsapp[39] and Instagram[40] could be viewed in the same light.
- ***Input foreclosure:*** Mergers of a vertical nature involving a platform or data provider at the upstream or adjacent market providing the platform or data as an input into a downstream market raise the risk of input foreclosure once the merger is concluded. The upstream or adjacent platform may engage in self-preferencing on the platform or restricting the access of the data provided at the upstream level to its downstream competitors. This has the effect of excluding rivals directly or raising rivals' costs, leading to higher prices for consumers. This may take the form of an outright refusal to deal or constructive refusal to deal.
- ***Combination of different datasets:*** The purpose of the merger could be to gain access to complementary datasets that can be combined with the acquiring firm's existing database. These datasets need not be in the same market for it to benefit the acquiring firm, as access to multiple data sources can improve the overall quality of the database and contribute to greater economies of scope.[41] This unique combination provides the merged entity with an advantage over competitors to improve on products in a way that cannot be matched.

In the South African context, a steady stream of acquisitions by Naspers over time and the identified competitive threat of the latest transaction with WeBuyCars serve to illustrate the point. Naspers is a multinational internet group. Headquartered in South Africa, its principal operations are in internet communications, entertainment, gaming and e-commerce. It built its position through acquiring shares in Chinese social networking and gaming firm Tencent Holdings. It has been building its local e-commerce and online retail platforms, through a series of acquisitions. The acquisition of Takealot Online (Pty) Ltd by a subsidiary of Naspers - Kalahari.com - in 2015 involved two of the largest online retailers in South Africa which were approved at the time. It has also acquired Autotrader to expand its vertical classifieds position in motor vehicles. These platforms have also been expanding their product range and moving into adjacent markets. For instance, Superbalist, a subsidiary of Takealot, first provided a platform for third-party sellers to curate their ranges but has recently moved to sell its own private-label products.

The proposed merger between Naspers and We Buy Cars, which was prohibited by the Tribunal in March 2020, presents an example of the Commission's use of digital market-relevant tools to assess competition in a merger context and mirrors many of the common concerns with such mergers.

Box 2: The MIH/WeBuyCars Merger



On 19 September 2018, the Competition Commission was notified of a large merger in terms of which the Naspers Group entity MIH intended to purchase a controlling stake in WeBuyCars (Pty) Ltd (WeBuyCars).

Naspers is a global internet group and controls in excess of 79 firms in South Africa, including OLX and Autotrader. OLX is an online generalist classified advertising platform and carries advertisements for a broad range of goods and services listed on its website under a number of categories. Autotrader is a specialised online advertising portal which functions primarily to allow users to browse classifieds exclusively for new and used vehicles. WeBuyCars is active in the sale of second-hand vehicles using a model described as "the guaranteed purchase model", which has emerged as a disruptor to the traditional approach of buying and selling used cars. The model has a core focus on buying used vehicles from individuals at scale using a digital platform and then off-loading these vehicles to dealers and consumers.

The Commission considered the activities of the merging parties and found that the proposed transaction does not present any horizontal overlap as the Naspers Group is not active in the buying and selling of cars in competition with WeBuyCars. However, during the investigation, the Commission learned that the Naspers Group had already acquired a stake in Frontier Car Group Inc (FCG) and through this acquisition, the Naspers Group intended to enter the South African market for wholesale and online buying of cars from the public and selling to dealers in direct competition with WeBuyCars.

FCG is currently not active in South Africa. It became apparent from various internal documents and press announcements that the Naspers Group, through FCG, has been anticipating entering the South African market for the online purchase of used cars from the public in competition with WeBuyCars.

The Commission determined that FCG, together with Naspers, was a likely entrant into the South African guaranteed purchase used car marketplace. The evidence further indicated that the tie-up between FCG and Naspers represented a formidable entrant relative to existing start-ups due to the synergies arising from the combination of OLX, Autotrader and FCG. The Commission further found that WBC is the market leader in the car-buying space.

Combination of different datasets

The Naspers Group controls OLX and Autotrader. OLX, the online generalist classified advertising platform, is particularly effective at collecting and processing data on private car sellers. Autotrader, the specialised automotive online advertising portal, is particularly effective at collecting, processing and analysing data obtained from dealership listings on its platform. In the ordinary course of business, WBC collects data on thousands of actual vehicle purchases, inspections and sales per month.

Based on extensive examination of the strategic documents of Naspers, the Commission determined that there is little doubt that Naspers has every intent of leveraging whatever synergies they can between the businesses post-merger. One such synergy is the ability of OLX to provide leads of private car sellers to WeBuyCars harnessing its strength in processing data on private car sellers.

The other synergy is leveraging off the importance of Autotrader. Autotrader is the leading online automotive listing site of dealer listings of vehicles for sale to private individuals. It collects data on dealer listings, consumer behaviour on the platform and consumer contact details if they enquire on a vehicle advertised on the platform. This data is useful for the efficient pricing of vehicles, which is core to the WBC's business model. More importantly, Naspers has the ability to harness this data due to its experience as a global internet group and the processing capabilities of the Autotrader company itself.

As such, the Commission determined that the combination of these datasets would provide WeBuyCars with an unmatchable competitive advantage over rivals in the guaranteed purchase used car marketplace. The Competition Tribunal has since prohibited the proposed MIH / We Buy Cars deal in line with the Commission's recommendation.

3.1.2 Emerging views on merger control changes in other jurisdictions

Calls have been made for a change in measurement of merger notification thresholds considering the challenges posed by killer acquisitions of start-ups with limited revenue streams. For instance, Germany has lowered its merger thresholds in response to the challenge of digital markets. In Australia, where merger notifications are voluntary, the ACCC is seeking to make certain businesses notify the ACCC in advance of all proposed acquisitions of entities that carry on business in Australia.

Given the possible competitive risks of mergers in digital markets (particularly those involving firms with an entrenched dominant position), Motta and Peitz (2020) propose a presumption of harm in relation to mergers involving an actual or potential competitor. This view is shared by the Stigler report (2019) as well as the ACCC (2019) report which states that it *"may be worthwhile to consider whether a rebuttable presumption should also apply, in some form, to merger cases in Australia. ... Absent clear and convincing evidence put by the merger parties, the starting point for the court is that the acquisition will substantially lessen competition"*.[42]

The Furman report (2019) suggests the introduction of a new "balance of harms" test, which would enable the CMA to weigh up – in broad terms – both the probabilities and magnitudes of potential outcomes and as such reject the suggestion of a presumption of harm. The report is also of the view that its merger policy must be updated to be more forward-looking and take better account of technological development. *"This will require updated guidance about how to conduct these assessments based on the latest economic understanding, and updated legislation clarifying the standards for blocking or conditioning a merger"*.

On the other hand, the Cremer report (2019) for the EU does not propose any formal change to the merger assessment test, nor does it seek to create any general reversal of legal presumption[43]. The EU believes the best way to handle these acquisitions is to inject some "horizontal" elements into the "conglomerate" theories of harm with a heightened degree of oversight of acquisitions of small start-ups by dominant platforms by asking questions such as *"(i) Does the acquirer benefit from barriers to entry linked to network effects or use of data? (ii) Is the target a potential or actual competitive constraint within the technological/users space or ecosystem? (iii) Does its elimination increase market power within this space notably through increased barriers to entry? (iv) If so, is the merger justified by efficiencies?"*.

3.1.3 Strategic Actions on Merger Control

The Commission is of the view that a proactive and robust digital merger regime needs to be in place to ensure that digital markets remain competitive, whilst at the same time not hindering venture capital investment in start-ups domestically. Such a regime needs to be positioned to scrutinise even small domestic acquisitions by large tech companies where appropriate, and international mergers by globally dominant tech companies where there is a potential to impact on the SA market. The regime also needs to make use of an updated toolkit to analyse the theories of harm more prevalent in digital mergers.

The current legislative framework, including the recent amendments to merger control regulation, is sufficient to allow for the scrutiny of all digital mergers and to understand the emerging ownership in start-ups where required. In particular:

- ***Merger thresholds:-*** The South African merger regime provides for 3 categories of mergers (small, intermediate and large) based on prescribed financial thresholds. In terms of sections 13A and 14 of the Competition Act, all intermediate and large mergers require mandatory notification and approval of the competition authorities before its implementation. In terms of section 13, a small merger does not require mandatory notification and can be implemented without approval, unless the Competition Commission requires notification within 6 months of its implementation. The ability to require the filing of a small merger means that the Commission has jurisdiction to consider any acquisition, however small. Furthermore, the thresholds are based on both turnover and assets, where assets are not restricted in its definition and may include intangible assets (such as intellectual property) as well as data assets.
- ***Merger creep:-*** recent amendments to the Act now require that firms filing a notifiable merger must set out in that filing all other acquisitions made in the period as stipulated by the Competition Commission. This requirement provides a useful method to identify acquisitions that fall within the small merger category.
- ***Partial shareholdings and cross-directorships:-*** the recent amendments also require that a firm filing a notifiable merger provide information on partial shareholdings and cross-directorships as part of that filing. This requirement provides a basis for understanding the links between firms in the digital space, including venture capital stakes taken in start-ups.

Whilst the legislative regime may be adequate to enable a higher level of scrutiny of digital mergers, the practice of merger notification and assessment requires changes to respond to the challenges in digital market merger control. The Commission's strategy to bring about more robust merger control involves the following elements:

- ***Guidance note on merger thresholds.*** The Commission intends to issue a guidance note which clarifies the valuation of assets for digital companies in respect of merger thresholds. This will cover how data, intellectual property and staff assets may be assessed for determining whether mandatory notifiable is required under the current legislation.
- ***Notice of mandatory requirements for specified dominant tech companies to inform the Commission of small domestic acquisitions.*** The Commission intends to require specific tech companies that dominate different digital markets in South Africa to inform the Commission of all small domestic acquisitions, including investments in start-ups and global acquisitions of targets with some presence locally. This will enable the Commission to determine if a small merger notification is required as permitted within the legislation, but without making this mandatory in all cases as that may inhibit pro-competitive venture capital investments in start-ups.
- ***Prioritisation of digital market mergers within merger control.*** The Commission will prioritise digital markets within merger control for the 2020-2025 period. This means that digital market mergers will be upgraded to phase 2 or 3 mergers for assessment purposes, receiving greater resources and closer scrutiny.
- ***Practice note on digital market merger assessment.*** The Commission will develop a practice note on the assessment of digital market mergers, updating the existing toolkits to account for the specific features of digital markets. These include the determination of relevant markets, market power and the varied range of more relevant theories of harm. It will also reflect a deeper appreciation of the business models, strategies and tactics of firms in digital markets, as well as the consumer behaviour which shapes such models. The intent is to better understand how strategic acquisitions by dominant digital firms may serve to entrench the position of the dominant digital firm, allowing it to benefit further from reducing potential competition and impeding dynamic competition in the long term. [44]As such, the enforcement approach will also be decidedly more innovation-focused and forward-looking. The Practice Note will also set out the specific information to be requested to undertake the relevant assessment.
- ***Practice note on merger creep assessment.*** The Commission intends to issue a practice note on the assessment of merger creep and when such mergers would warrant intervention. Whilst this practice note is general, it will detail the specific approach to digital markets and the kind of merger creep analysis relevant to these markets.
- ***Notice of concurrent filing of global tech mergers***. The Commission intends to ensure that domestically notifiable global tech mergers are concurrently filed in South Africa and other major jurisdictions such that the Commission may benefit from collaboration with other major jurisdictions in the assessment of the merger, including the relevant markets, theories of harm and potential conditions. This is of benefit to the merging parties as well as the Commission to ensure consistent treatment for global firms. For the Commission, it is important that any conditions agreed to in other jurisdictions apply equally in South Africa.

In addition, the Commission intends to keep a strategic focus on merger control in respect of the underlying infrastructure for the digital economy. The Data Services Market Inquiry (DSMI) has found that competition issues exist within the infrastructure layer, which is concentrated. The DSMI recognised the need to develop alternative broadband infrastructure, especially fibre-based and public WiFi networks to enhance competition. As the shift occurs to FTTH and 5G mobile infrastructure networks, it is important to ensure that these markets do not consolidate in a manner detrimental to competition.

Firms intending to enter into mergers and acquisitions should take note of the Commission's existing guidelines for merger assessments as well as the additional requirements set by the amendments to the Competition Act namely: (1) the extent of ownership by a party to a merger in another firm or firms in related markets; (2)

common members or directors in firms operating in related markets; and (3) any prior mergers engaged in by a party to a merger for a period yet to be stipulated by the Commission.

In addition to the existing public interest guidelines, the Commission will consider (1) the extent to which a proposed merger promotes a greater spread of ownership amongst historically disadvantaged persons and workers; and (2) the extent to which a merger enables small, medium and historically disadvantaged firms and workers to effectively enter into and participate in a market when considering the effect of a merger on the public interest.

3.2 Cartel Conduct

3.2.1 New forms of collusion & detection challenges

The current developments in digital markets have challenged the traditional methods and approaches that competition regulators and enforcers have relied on over the years. These developments have changed the conditions of the market, how market players behave and compete with one another. The use of algorithms has created efficiencies for market players in digital markets, and it has also created modern and advanced ways for market players to collude. Algorithms can facilitate or maintain collusion, by making use of the same third-party IT service provider or by simply aligning market strategies and conduct to achieve the same outcome. Internationally it has been found that big data can be used to facilitate collusion in the following ways.

- Firms may use real-time data analysis to monitor compliance with an explicit agreement that may resemble a traditional cartel.
- Firms may share identical pricing algorithms that allow them to simultaneously adjust prices based on the inflow of market data, just as in the poster price-fixing case.[45]
- At a more sophisticated level, it is argued that firms may use big data to facilitate tacit collusion, either by improving market transparency or by making actions more interdependent. For instance, by programming immediate retaliation to price falls.
- Companies may use AI to create profit-maximising algorithms that, through machine learning, may achieve tacit collusion, even in cases where the programmer did not initially foresee such an outcome.[46]

The review of literature further suggests that digital cartels existed even before big data was 'big'. In a well-known case investigated in the 1990s by the US Department of Justice (USDOJ), major US airlines were accused of using a database with detailed airfare information to make repeated tariff announcements and fast price changes, to enable online collusion. However, after the investigation, the case was closed with a settlement agreement between the USDOJ and the airline companies.[47]

Box 3: The US Airline Case

In the US airline industry, airline companies sent fare information daily to the Airline Tariff Publishing Company (ATPCO), a central clearinghouse that compiles all the data received and shares it in real-time with travel agents, computer reservations systems, consumers and even the airline companies themselves. The database published by ATPCO included, among other things, information about prices, travel dates, origin and destination airports, ticket restrictions, as well as first and last ticket dates, which indicate the time range when the tickets at a particular fare are for sale.

According to the case presented by the DoJ, airline companies were using first ticket dates to announce tariff raises many weeks in advance. If the announcements were matched by the rivals when the first ticket date arrived all companies would simultaneously raise the tariff. Some of the coordination strategies were more complex, involving the use of fare code numbers and ticket date footnotes to send signals or negotiate multimarket coordination.

According to the DoJ's case, it was the existence of a fast data exchange mechanism to monitor tariffs and react rapidly to price changes that enabled companies to collude without explicitly communicating. As tacit collusion is not forbidden by competition law and any explicit coordination was very hard to prove in a criminal case, eventually, the DoJ reached a settlement agreement with the airline companies, under which the latter agreed to stop announcing most price increases in advance, except for a few circumstances where early announcements could enhance consumer welfare. All of the airline defendants' fares had to be concurrently available for sale to consumers.

These new forms of collusion also create a related challenge which is the ability of the competition authorities to detect and investigate cartels operating in the digital economy. The approaches that most authorities have been relying on to initiate cartel investigations include corporate leniency programmes and dawn raids. These traditional approaches seem to be less suitable for digital markets which are more internet-based, potentially originating and conducted from outside the country, and may require different analytical and technical skills to determine the nature of any conduct.

The Commission investigations into three cartel cases regarding the use of algorithm collusion are illustrative of the new challenges faced in assessing these types of collusion. The Commission has been required to outsource assistance from software developers/programmers to assist in deciphering how the particular software applications are designed to set prices. Furthermore, the sheer volume of data to be analysed has challenged the in-house computing power of the Commission in several other cases.

In cartel matters more generally, the issue of jurisdictional reach to parties operating outside of South Africa has been challenged. This issue is also likely to emerge in digital markets as many digital firms may lack an incorporated entity and presence in South Africa although their service is available locally or they deliver products to South Africa.

3.2.2 New tools and approaches in other jurisdictions

Regulators and enforcers are now forced to rethink the traditional ways of overseeing competition by exploring new methods to adapt to the current developments in digital markets. This has been occurring in several other leading jurisdictions globally, including the following examples;

- ***United Kingdom*** - The Competition and Markets Authority (CMA) makes use of a screening tool for cartels which looks for suspicious signs in a tender.[48]
- ***Brazil***[49] - CADE places great emphasis on the development and implementation of both reactive and proactive investigation techniques. CADE managed to develop an interface called Cérebro (the "Brain"), incorporating data, data-mining instruments and statistical tests. In developing its proactive analytical tool, CADE hired consultants with specialized knowledge in the field of statistics, IT, data mining, cartel and economics. The objective was for the tool to identify evidence of cartels in

public bids, like suspicious, implausible facts or behavioural patterns, and the provision of relevant information for the investigation of the cases.

- ***Russia*** - FAS makes use of an automated web-based service dubbed the "Big Digital CAT", to analyze and detect any violations of competition law within the digital sector. The FAS has developed, implemented and successfully used a multi-parameter system for exposing and proving bid-rigging cartels.[50] The system is used to control auctions and expose anticompetitive agreements. The program works based on the procurement information system and other data sources: mass media, e-trading sites, as well as open information sources.

3.2.3 Strategic Actions on Cartel Enforcement

Collusion through the use of algorithms to set prices and monitor compliance with agreed pricing would be captured by section 4(1)(b) of the Competition Act which prohibits restrictive horizontal agreements. Furthermore, the recent CAC ruling in the forex trading cartel case involving international banks found that the South African competition authorities do have jurisdiction where there is a demonstrable effect in South Africa or on South African consumers and customers. As such, the legal framework currently exists for the prosecution of cartel activity using more novel means to collude and by digital firms located globally.

One of the challenges faced by the Commission in relation to cartel investigations is the lack of requisite skills for cartel detection using data analytical tools rather than leniency programmes. The Commission's strategy to address this gap is to build these cartel detection capabilities in the following manner:

- ***Develop appropriate tools for detecting digital cartels and assessing the effects of agreements amongst competitors:*** - In light of the fact that other jurisdictions and BRICS partners are already developing cartel detection capabilities, the Commission can accelerate its learning processes through collaboration with these institutions. This is necessary as the tools are new and untested, with even other jurisdictions having mixed results and needing to tweak their approaches to detection. A collaborative problem-solving approach will ensure that models can be developed and de-bugged quicker than would otherwise occur.
- ***Pilot a tender bid-rigging detection programme:*** - the Commission has already initiated a tender bid-rigging detection programme which aims to use public sector tender data to develop an automated cartel detection tool similar to the other jurisdictions. The purpose of the programme is to pilot some of the cartel detection techniques and build some experience in an environment where there are known strategies that may be more readily identifiable. It also aligns with domestic priorities around eliminating tender-rigging in public procurement, as well as associated corruption of tenders. This is also an environment where collaboration and mutual learning can take place. Whilst the tender bid-rigging detection tool is an end-product in itself, it also provides a learning platform and springboard to developing more sophisticated cartel forensic capabilities.
- ***Build and staff a cartels forensic lab:*** - the Commission intends to build up its detection capabilities from both an infrastructure and skills-based perspective through the development of a cartels forensic laboratory. This will provide the computing infrastructure for large scale data analysis and scrapping pricing data from the Internet. The lab will be staffed by data scientists with the skill set to undertake the analysis but informed by economic principles.
- Develop guidelines for establishing the Commission's jurisdiction in cases of digital collusion that have an effect in South Africa;

Conversely, firms operating in digital markets should:

- avoid developing and sharing algorithms that allow competing firms to simultaneously adjust prices based on the inflow of market data.
- avoid developing and sharing algorithms that lead to price setting, market allocation or collusive tendering.
- avoid using data to set prices amongst competitors and data analysis to monitor pricing agreements amongst competing firms.
- avoid using data to facilitate tacit collusion, for instance by programming collective retaliation to price changes in a market.
- avoid entering into agreements amongst competing firms that could unjustifiably and substantially lessen competition in a market

3.3 Market Conduct And Abuse Of Dominance

Section 8 of the Competition Act prohibits the abuse of market power by a dominant firm and goes further to list the various types of conduct considered in law to be such an abuse. In summary – and under defined circumstances – the Act prohibits a dominant firm from (1) charging an excessive price; (2) refusing a competitor access to an essential facility; (3) engaging in an act that prevents or impedes another firm from entering or expanding in a market; (4) requiring a supplier not to deal with a competitor; (5) refusing to supply a competitor scarce goods; (6) bundling unrelated products or services together for sale; (7) selling below cost; (8) buying up scarce resources needed by a competitor; (9) imposing unfair prices or trading conditions on suppliers, and (10) discriminating on trading conditions between buyers. International and local experience has shown us that instances of such conduct prevail amongst two-sided platforms in the digital economy. Below, we outline the enforcement challenges experienced by the Commission as well as the proposed strategic direction to abuse of dominance cases.

3.3.1 Challenges resulting in under-enforcement

From a unilateral conduct perspective, the Commission investigated a few cases and none of the cases led to a conviction. However, given the nature of the digital markets which are typically rolled out globally in a largely uniform manner even if their rollout is staggered over time across countries. The one implication of this feature is that behaviour identified as inconsistent with competition law in one jurisdiction may also be prevalent in our jurisdiction. Further, South Africa, like any other country could equally be in a position to benefit from any remedies achieved by the larger jurisdictions (such as in the Google case).

Further, the global digital giants pose an even greater enforcement challenge for developing countries whose own economies are dwarfed by the valuations of these companies. In particular, jurisdictional reach is a challenge for market conduct/abuse of dominance cases as competition authorities may sometimes struggle to hold to account global entities with limited presence in South Africa. This is especially where the evidence is located elsewhere and the competition authority faces numerous legal hurdles in securing that evidence, typically without success. Limited resources and the complexity of digital market cases are a further impediment to effective market conduct/abuse of dominance enforcement in developing countries.

Further, a common pattern that has emerged when observing the growing trend of digital markets, is that digital markets tend to be "tipping markets". This means that there is a likelihood for the rapid expansion of one large dominant platform within a particular market. For example, in the US, the UK, and Germany, Amazon.com has grown to become the largest platform, in China it is Alibaba (through Taobao and T-Mall websites), in Japan is Rakuten, while in South America it is Mercado Libre (Edquid, 2017)[51]. In South Africa, one could consider the growth trajectory of Takealot as being exemplary of this tendency.

A shared threat faced by competition authorities in developing countries is that of the appropriateness of current competition legislation and regulation to address the challenges of the digital economy. South Africa shares these concerns as our own legislative and regulatory systems have often been modelled on those in more mature jurisdictions which are currently facing challenges in regulating digital markets. For example, in terms of abuse of dominance, it is currently the case in South African law that the authority bears the onus of demonstrating harm from potentially exclusionary practices. As raised by the expert report for the European Union on competition policy in digital markets, the preferred position may be for a reverse onus in certain circumstances whereby dominant digital firms should have to demonstrate why certain conduct is net efficiency-enhancing and not restrictive of new entry.[52]

Further challenges faced by the Commission include concerns raised across several sectors about the fact that the broader regulatory framework in many cases does not apply to new, disruptive technology, which gives these new digital firms an unfair competitive advantage on regulated incumbents. For instance, traditional metered taxis have raised the concern that area restrictions and price regulation applied to their business model is not applied to e-hailing firms such as Uber and Taxify/Bolt, placing the traditional model at a competitive disadvantage. Public and Free-To-Air (FTA) broadcaster licensees subject to local content requirements express concerns that streaming services are not licensed and therefore not subject to the same regulations, which threatens to erode their advertising revenue base by the likes of Facebook and Google, undermining the investment in local content development.

3.3.2 Emerging views on abuse of dominance assessments in other jurisdictions

Internationally, concerns have been raised over the size, scope and increasing dominance of digital firms, particularly as they have also in many instances acquired smaller competitors. For example, the size and scope of Amazon have led some to voice concern about its potential monopoly power. In addition to being an online retailer, it is a marketing platform, delivery and logistics network, payment service, credit lender, auction house, book publisher, film and TV producer, fashion designer, hardware manufacturer and leading host of cloud computing services. Furthermore, it has used the additional funding to subsidise products aimed at creating customer loyalty such as Amazon Prime which, for a subscription, provides services such as movie streaming and free next day delivery, but ultimately creates a pool of customers that are less likely to switch. This growth which is partly a result of network effects otherwise means that these companies have the potential to crowd out otherwise competitive local suppliers (both online and bricks-and-mortar).

Amazon can also compete directly with sellers in its marketplace, benefitting from insight into their ordering data. Accusations have been made that they have used their dominance in sales to benefit their e-book business over that of traditional publishers and have used it to demand better terms from publishers, leading to consolidation in traditional publishing. Competition to Amazon has come from marketplaces (particularly eBay) and traditional retailers with an online offering (particularly Walmart). However, the different cost structure faced by online companies (which does not have the same high retail property costs) and the low-profit expectations have led to concerns that they will eventually lead to closures in traditional retail.

i. Data, market power and other forms of abusive conduct

The growth of the digital economy has moreover enabled the rise of business models based on the collection and processing of big data.[53] The ability of firms to collect such data and process it for commercial use provides a competitive advantage over rivals. Firms use this accumulated data to improve services, deliver better-individualised services for consumers and spur innovation and new services. The narrative above has touched upon the potential concerns arising out of the accumulation of big data. The OECD particularly notes that from a competition law perspective, *"While the competitive rivalry and drive to maintain a data advantage can be pro-competitive, yielding innovations that benefit consumers and the company, some competition authorities emphasise that network effects and economies of scale driven by Big Data can also confer market power and a durable competitive advantage."*[54]

The presence of network effects in digital markets means that these markets tend to be quite concentrated with high barriers to entry.[55] The large endowments of data accumulated by incumbents contribute to these outcomes, as it provides incumbents with a competitive advantage that is unlikely to be matched by challengers. Digital firms which rely on the use of big data typically have unusual cost structures, in that they have high up-front sunk costs. This is particularly true in the case of big data, where the information technologies required to store and process the data can be very costly, involving vast data centres, servers, data-analytical software, internet connections with advanced firewalls and expensive human resources, such as computer scientists and programmers. This cost structure is characterised by high economies of scale and scope and can, therefore, facilitate the market concentration of big data in the hands of a few market players.[56] In this context, the main disciplining mechanism against incumbents mitigating their ability to exert market power is competition for the market by actual and potential competitors.

Competition authorities have, however, typically not isolated the handling and analysis of data as the source of market power but have rather evaluated theories of harm related to the possession of data. However, if one considers that often the digitized firms become 'gatekeepers' to access markets, then exclusionary conduct may also occur. This may occur through the act of self-preferencing, by which digital platforms will give preferential treatment to their own services over the services of other companies and as such maintain their positions of dominance.

Similarly, conglomerate effects play a much bigger role in digital markets.[57] This is because firms operating in the digital economy often operate platforms that connect users in a single group to each other, or users in one group to users in other groups.[58] The "*network effects*" that characterize platform markets can lead to rapid horizontal growth and, all else equal, a single firm that serves as the standard for all users to settle on.

Such firms are then in a position to challenge the contestability of markets, may hinder innovation and entrench positions of market power being leveraged to other markets. Conglomeration by global and local digital market firms also has the potential to negatively impact inclusive growth, even where several big players are competing. This is particularly concerning in the South African context where market concentration levels are already high, and the likely impact of increased conglomeration raises barriers to entry for potential entrants.[59] This is because the digitized firms become 'gatekeepers' to access markets and hence potential anti-competitive exclusion may occur through any form of conduct that makes it harder for third-parties to distribute their products or services through a platform while benefitting the platform owner's competing product.

The Google Search (Shopping) case[60] below provides a practical example of the type of conduct that has come under competition law scrutiny around the world.

Box 4: The Google Search (Shopping) Case: Abuse of Market Power

In 2010, the European Commission decided to open an antitrust investigation into allegations that Google Inc. had abused a dominant position in online search, in violation of European Union rules (Article 102 TFEU). The opening of formal proceedings followed complaints by search service providers about the unfavourable treatment of their services in Google's unpaid and sponsored search results coupled with an alleged preferential placement of Google's own services.

This investigation resulted in a penalty imposed on Google related to Google Shopping. The investigation found that Google engaged in 'self-preferencing,' by positioning and displaying more favourably, in its general search results pages, its own comparison-shopping service compared to competing comparison-shopping services.

Google's conduct was an abuse of dominance because it (i) diverted traffic away from competing comparison shopping services to Google's own comparison shopping service, in the sense that it decreased traffic from Google's general results pages to competing comparison shopping services and increased traffic from Google's general search results pages to Google's own comparison shopping service; and (ii) was likely to result in anti-competitive effects in the markets for comparison shopping services and general search services.

Google's conduct had several potential anti-competitive effects, including (i) the potential to foreclose competing comparison shopping services, which may lead to higher fees for merchants, higher prices for consumers, and less innovation; and (ii) to reduce the ability of consumers to access the most relevant comparison shopping services.

ii. Vertical restraints

In some jurisdictions, competition authorities are now pursuing enforcement action following various market studies and expert panel reports. It would appear that these agencies have found that the current competition rules are sufficiently flexible to deal with a range of potentially anticompetitive restrictions in an e-commerce environment. For example, based on its E-commerce Sector Inquiry findings of May 2017, the European Commission opened some antitrust investigations concerning online vertical restrictions. These investigations resulted in four decisions relating to online resale price maintenance against four manufacturers of consumer electronics products in July 2018 and a decision about an online cross-border sales restriction in December 2018.[61] In these cases, the European Commission applied the traditional analytical framework for vertical restrictions while noting that the findings in the resale price maintenance cases 'shed light on the increased use of automatic software applied by retailers for price monitoring and price setting' and that the use of algorithms may have had an exacerbating impact.[62]

3.3.3 A growing chorus of calls to review enforcement laws

The UK is of the view that the biggest missing set of policies are ones that would actively help foster competition in digital markets.[63] Instead of relying on traditional competition tools, the UK believes there should be a forward-looking approach that creates and enforces a clear set of rules to limit anti-competitive actions by the most significant digital platforms while also reducing structural barriers that currently hinder

effective competition. The UK's goal is for consumers to be able to move their data across digital services, to build systems around open standards, and to make data available for competitors. It believes it can achieve this through an establishment of a digital markets unit that will be given a remit to use tools and frameworks that will support greater competition and consumer choice in digital markets, and it must be backed by new powers in legislation to ensure that the unit is effective.

In terms of the policy, the UK is recommending that changes should be made that will enable more use of interim measures to prevent any anti-competitive behaviour while a case is ongoing, and adjusting appeal standards to balance protecting parties' interests with the need for the competition authority to have usable tools and an appropriate margin of judgement.

The EC believes there is no need to fundamentally rethink goals of competition law in light of the digital era, as its vigorous competition policy enforcement is still a powerful tool that serves the interests of consumers and the economy as a whole.[64] However, the EC acknowledges that digital markets require established concepts, doctrines and methodologies, as well as competition enforcement more generally, to be adapted and refined.

According to the EU in cases where consumer harm cannot be precisely measured, strategies by dominant platforms aimed at reducing competition pressure they face should be forbidden in the absence of clearly documented consumer welfare gains. In terms of measuring market power, the EU is of the view that it must be case-specific and take into account insights from behavioural economics about the strength of consumers' biases. The EU argues that dominant platforms play a form of regulatory role as they determine the rules according to which their users interact, and that they have a responsibility to ensure that competition on their platforms is fair, unbiased, and pro-users.

On data, the EU believes the efficiencies of broad data dissemination must be balanced against other policy concerns, such as the need to ensure sufficient investment incentives for firms to collect and process data, protection of privacy and confidential business secrets, and the possibility of collusive aspects of data sharing.

The Australian Competition and Consumer Commission (ACCC) conducted a digital platform inquiry, which considered the impact of online search engines, social media and digital content platforms on competition in the media and advertising service market.[65] The inquiry found that both Google and Facebook have substantial market power in Australia. Google was found to have substantial market power in the supply of general search services, the supply of search advertising services and bargaining power in its dealings with news media businesses. Facebook was found to have substantial market power in the supply of social media services, the supply of display advertising services and bargaining power in its dealings with news media businesses in Australia. In addition to above, the inquiry also found that the advertising businesses of both platforms extend well beyond their core owned and operated platforms. Both platforms sell advertising opportunities on third party websites and apps which are part of their respective advertising networks, as well as on the platforms they own and operate. The inquiry also found that the acquisition of potential competitors by the two dominant firms and economies of scope created via control of data sets are the two factors that have contributed to Google and Facebook's dominant position in their respective markets.

With regards to data, the ACCC considers that opening up the data, or the routes to data, held by the major digital platforms may reduce the barriers to competition in existing markets and assist competitive innovation in future markets. It recommends that this could be achieved by requiring leading digital platforms to share the data with potential rivals and the application of the Consumer Data Right. The ACCC acknowledges that the existing tools and law frameworks remain applicable to digital markets, however, the opacity and complexity of digital markets make it difficult to detect issues and can limit the effectiveness of the broad principles. Thus, the ACCC recommends that existing investigative tools under competition and consumer law should be supplemented with additional proactive investigation, monitoring and enforcement powers to achieve better outcomes. Similar to what other jurisdictions have recommended, the inquiry recommended the creation of a branch within the ACCC to focus on digital platforms.

3.3.4 Strategic Actions on Unilateral Conduct

As outlined at the beginning of this chapter, outside of globalised search and social media digital markets, there currently exists a more open and contestable digital space in South Africa. This space does provide opportunities for domestic startups and established 'brick 'n mortar' firms to open up new digital market products. However, evidence from other jurisdictions is that this period of development and penetration pricing can give way to entrenchment and concentration which reduces contestability and lowers consumer welfare. The evidence from other jurisdictions is also that this concentration is difficult to reverse once in place. Already there is evidence of this tendency in certain more established digital products in South Africa.

As a result, the primary strategy of the Commission will be to use competition law in a manner to proactively regulate domestic digital markets to preserve the current contestability. In terms of market conduct regulation, this strategy involves the following:

- ***Mapping the digital landscape of South Africa:-.*** The Commission is already in the process of mapping the digital market landscape in South Africa. This involves identifying key emerging digital markets, the firms within those markets, the current trends of growth and tendency to domestic dominance, and some of the conduct occurring the market. The purpose of the landscape study is to inform proactive initiations on market conduct by dominant firms and to focus a future market inquiry or research into specific digital markets.

- ***Proactive conduct investigations:-*** The digital landscape study is already identifying conduct by dominant online firms which may be excluding rivals and entrenching dominance. The Commission's strategy is to initiate investigations under section 8 and 9 of the Act into these firms to determine if such conduct constitutes a contravention of the Act.

- ***Guidelines for key areas of abuse:-*** The Commission also aims to issue guidelines where appropriate in respect of conduct which it deems is likely to contravene the Act. Whilst such a strategy is broader than simply digital markets, these guidelines will incorporate specific focus areas on conduct in digital markets. The Commission has already issued such guidelines in respect of Buyer Power Provisions which apply to eCommerce and online services as designated sectors, and which outline trading conditions deemed to be unfair. The process of developing guidelines, much like the practice note on digital market merger assessment, is the opportunity to update the existing toolkits to account for the specific features of digital markets. These include not only the determination of relevant markets and market power but also how certain strategies and tactics of firms in digital markets may be used to exclude rivals and entrench dominance.

- ***Institute a market inquiry into digital markets:-*** the Commission is of the view that market inquiries represent more effective tools to promote and retain competition in markets where common industry practices may collectively contribute to the hindering of competition. These inquiries also provide a more effective means of addressing barriers to participation in such markets, particularly by SME and firms owned and controlled by historically disadvantaged persons. The Commission intends to launch a digital markets inquiry in 2020/21. Concurrently, there is room for the Commission to educate and advocate for compliance amongst firms operating in the digital economy.

The relative contestability of many domestic digital markets is in stark contrast to the global dominance in search, social media and mobile operating system markets. Given the global nature of these markets and the extreme pre-existing dominance, the Commission can neither proactively promote contestability nor address the underlying abusive conduct alone. For this reason, the Commission will deliberately pursue a strategy of global cooperation and coordination in respect of addressing market conduct of firms such as Google, Facebook and Apple which also dominate domestically, and potentially also second-tier globally important digital firms such as Uber, Airbnb, Bookings.com.

- ***Tracking of foreign cases against the global giants.*** The Commission will actively track enforcement action implemented globally against digital services that are also available in South Africa. The jurisdictional scan will provide intelligence on what conduct exists but also whether it is likely to contravene competition law. This would include instances where digital service firms have voluntarily agreed to adjust behaviour in a pro-active manner and referrals for prosecution.

- ***Proactive initiation and global cooperation where conduct is likely to be similar locally.*** The tracking would provide a basis for proactive initiations against the global giants where there is a reasonable suspicion that similar conduct is occurring domestically. The Commission will then cooperate with other jurisdictions that have undertaken conduct referrals to fast track the investigation in terms of theories of harm and evidence. Where the conduct is largely similar, the Commission will adopt a strategy of first determining if the remedy identified in the proceedings elsewhere could be readily applied in South Africa to ensure consistency and ease of

implementation. Further, The Commission intends to make use of existing tools for market definition with due recognition to the pro-competitive effects of data, information and innovation.

Conversely, there are actions that large and dominant firms can undertake:

- As a start, firms should conduct business operations in a manner that promotes inclusivity, shared prosperity and equality.
- Data-rich entities, in particular, should avoid refusing access to data that is considered indispensable to compete; if the refusal prevents a new product from emerging; if there is a current unmet demand for the data and if the refusal prevents a firm from entering into or expanding within a market.
- Firms in a dominant position and those with market power should avoid refusing competitors access to an essential resource; engaging in an act that prevents or impedes another firm from entering or expanding in a market; requiring a supplier not to deal with a competitor; bundling unrelated products or services together for sale; and discriminating on trading conditions between buyers, particularly SME's.
- Concerning vertical restraints, the Commission intends to develop appropriate tools for detecting digital resale price maintenance and develop digital tools for assessing the effects of vertical agreements and practices in digital markets.
- Suppliers to online retailers should avoid setting minimum prices for resellers unless they clarify that such pricing is recommended.
- Parties in a supplier/customer relationship should avoid entering into agreements that could unjustifiably and substantially lessen competition.

3.4 Commission's Previous Interventions In Digital Markets

The Commission has had previous interventions in the digital space through investigations of abuse of dominance, cartel cases and the assessment of mergers and acquisitions. The Commission has decided not to pursue some of the abuse of dominance and cartel cases against global tech firms due either to the view that the conduct was unlikely to lead to substantial lessening or prevention of competition in the relevant market or there was lack of evidence to prove a contravention of the Act.

In merger cases, the trend in digital markets in South Africa has been that international and incumbent firms would buy newly formed companies that did not yet have notable revenue and did not have any substantial share in the market. As such, these mergers were not notifiable to the competition authorities which removed the opportunity to investigate potential competition concerns that could result from these mergers. The Facebook/WhatsApp merger in 2015 was a typical example of this problem faced by the authorities. Table 5 below, provides a summary of some of the past cases investigated by the Commission and Tribunal in digital markets.

Table 5: Digital platforms active in South Africa

Parties involved	Case summary	Findings, Remedies / Recommendations
ABUSE OF DOMINANCE CASES		
Complaint against Microsoft South Africa and others (2009)	The Complainant alleged that no distributor or retailer would sell him a version of the Dell laptop without a Microsoft operating system pre-installed. The complaint was investigated as possible exclusionary conduct and inducement.	Provide an online search platform between web users and advertisers The Commission decided not to pursue the investigation because the remedies in the US case applied globally, meaning that it is highly unlikely that Microsoft can restrict the OEMs ability to sell non-Windows PCs, or in some way illegally incentivize them to sell only PCs pre-installed with Windows.
Complaint against Google South Africa (2008)	The complainant alleged that Google's action amounts to requiring and inducing another market player not to deal with the complainant, but to deal directly with them in contravention of Act.	The allegation was dismissed because the complainant was a small player and the conduct of Google was unlikely to result in substantial lessening or prevention of competition in the relevant market.
Metered Taxi Industry vs Uber (2015)	The metered taxi industry alleged that Uber was (i) conducting unfair business practice as it secures partnerships with multinational companies that have exposure to its client base and ultimately giving it unparalleled market access (ii) charging below-cost rates.	The Commission's preliminary findings found that Uber driver-partners were not charging prices that are below cost. It further decided not to pursue the case as the complaint was lodged within one year of Uber commencing its operations in South Africa and it was unlikely to establish anti-competitive effects.
Complaint against Bluespec (2017)	The complainant alleged that through its Dreamtech App, Bluespec can influence the decision on who tows the motor vehicle from the accident scene.	The investigation looked at the use of algorithms to facilitate exclusionary conduct by a vertically integrated industry player. The case was, however, closed due to lack of evidence of exclusionary conduct.
CARTEL CASES		
Complaint against Audatex SA & others (2008)	It was alleged that the use of Audatex SA database by the insurance companies which include the costing of specific vehicle parts, costing of paint and even labour times amounts to directly and/or indirectly fixes the prices and/or trading conditions of motor vehicle repairs to the detriment of panel beaters.	The case was non-referred on the basis that no evidence of collusion between insurance companies to fix prices on the Audatex system was found.
MERGERS AND ACQUISITIONS		
Mobile Telephone Networks & Verizon South Africa (2009)	The Commission's assessment focussed on five markets in which there are horizontal overlaps and three markets in which there are potential vertical or conglomerate effects.	The Tribunal approved the merger unconditionally as it found that the transaction was unlikely to lead to a substantial lessening of competition in any of the relevant markets. The merged entity faced competition from much stronger players in all the relevant markets.
Takealot & Kalahari (2014)	The merger involved two of the largest online retailers in South Africa. There was a horizontal overlap in relation to online retailing of consumer goods and products.	The Commission approved the merger with conditions related to the public interest (employment). There were no competition concerns in this regard.
Facebook & WhatsApp (2015)	The merger involved an overlap in the provision of consumer communications services. The transaction raised some issues relating to big data globally.	The transaction was not notifiable in South Africa because WhatsApp did not generate any revenue in the country.
Microsoft Corporation & LinkedIn (2016)	The Commission found overlaps arising in respect of social network services and cloud-based services in South Africa.	The merger was approved without conditions because the merging parties generated relatively low revenues in South Africa. It was also unlikely to anti-competitive effects in any markets in South Africa.
MIH eCommerce Holdings and Car Trader & AutoTrader (2017)	The merger presented a horizontal overlap in the provision of online automotive classified advertising services.	The Commission found that the merger is unlikely to substantially lessen or prevent competition in any markets in South Africa. The merger was approved without conditions.

Source: Commission's various internal cases in digital markets

CHAPTER 4

REGULATORY ISSUES IN THE DIGITAL ECONOMY

"…[D]igitalisation has [ ] given rise to fundamental challenges for policymakers in countries at all levels of development. Harnessing its potential for the many, and not just the few, requires creative thinking and policy experimentation. And it calls for greater global cooperation to avoid widening the income gap."

Digital economy report 2019, UNCTAD

Besides the competition issues raised in the paper thus far, there are regulatory issues that have linkages with competition policy. Matters of the digital economy require a holistic and systemic approach by all relevant players. We highlight the following aspects of digital economy regulation below.

4.1 Promoting Access & Connectivity: Infrastructure & Digital Penetration

A strong digital sector, including adequate internet infrastructure and digital firms providing online content and services, is the foundation of the digital economy. South Africa must invest in digital technology and its infrastructure with a sense of urgency.

In South Africa, as in many developing countries, there is still no universal access to broadband. Whilst mobile broadband coverage may be pervasive in a country like South Africa with close to 100% of the population covered by mobile operators, there is a demand gap as low-income individuals are unable to afford access to digital services due to the cost of devices and the price of data services offered by the operators. Therefore currently only 65% of South African households had at least one member that had access to or used, the internet either at home, work, place of study or internet cafés, but usage levels are low even for a large portion of those that do have access[66]. Rural access is even lower. While figures show that 60.1% of households in the country use mobile devices to access the internet, this figure drops to 45.0% in rural areas[67]. Fixed-line access is even lower, with 10.4% of South African households having access to fixed internet services at home[68], pointing to a supply-gap where infrastructure roll-out is lacking, particularly in low-income and rural areas.

Mobile networks have grown to become the main vehicle for internet access in South Africa. From the period 2015 - 2018, almost 100% of the mobile internet user population fell within Vodacom's[69] second-generation (2G) and third-generation (3G) networks systems. Coverage of the fourth-generation networks (4G), also known as the Long-Term Evolution (LTE) was estimated at 85% of the mobile internet user population. MTN SA [70]also covered almost 100% of the population with its 2G and 3G networks while in October 2019, 4G coverage reached 95% of the country's population.[71]

For many end-users, access to data services requires 'smartphones' which are capable of gaining access to data services and the internet. It is reported that 20.4 million people used smartphones in South Africa in 2018, representing roughly 36% of the population. According to the Independent Communications Authority of South Africa (ICASA)'s latest State of ICT Sector report, smartphone penetration in the country increased from 43.5% in 2016 to 81.7% in 2018. Internet usage figures nationally show that 56.9% (39.6% in rural areas) of households in the country use mobile phones to access the internet.[72]

Irrespective of the trends observed above, access to data services and indeed the digital economy remains highly problematic as there is a real threat of not just economic exclusion, but also exclusion from full participation in society. For these reasons, the Commission has worked to reduce data costs for consumers through its inquiry into data pricing in South Africa. As a direct outcome of this inquiry, the Commission recently concluded settlement agreements with Vodacom, Cell C and MTN to reduce data pricing with a specific focus on lower-income segments of the market. The Commission also noted efforts by MTN, also a major mobile network operator, to reduce data costs following the Commission's data inquiry.

Data access for consumers will stimulate the use of digital technologies. Current plans to increase broadband connectivity in under-served communities, the rollout of 5G networks, the creation of an open access network (WOAN) that provides access to essential facilities, infrastructure sharing and rapid infrastructure deployment, and digital terrestrial television are opportunities for growth in the ICT sector which should stimulate local manufacturing.[73]

4.2 Avoiding Regulatory Responses That Distort Markets

Many jurisdictions have had to respond to the disruption caused by digital platforms with regulation as these platforms were not regulated before. Regulatory responses have included restrictions of the operations of platforms, application of the traditional regulations to the platforms or introduction of specific regulations that apply only to these platforms. Common examples of regulatory responses to increased use of digital platforms are found in the tourism (AirBnB), transport (Uber) and broadcasting sectors.

The Commission notes that the use of technology presents opportunities to expand consumer options in various sectors but also raises several questions regarding the regulation of these services.[74] In the tourism sector, for instance, many jurisdictions reacted with policies that were targeted at the share-economy as there was uncertainty on the application of the normal rules and regulations on people using these platforms. For example, concerns have been raised about the fact that Uber drivers in South Africa have not been required to apply for operating licences from the relevant authorities, an issue which emerged prominently in the Commission's market inquiry into Public Passenger Transport. Similarly, some amendments were made by Government to the Tourism Bill, with concerns that operators of AirBnB's may not necessarily comply with municipal bylaws which traditional accommodation establishments have to.

Another instance where there has been digital disruption is in Broadcasting, where new technologies and the dynamic effects of convergence are changing the way consumers access audio-visual content. Arguably, the dissemination of information to the public and other services offered by multiple platforms, including analogue or digital terrestrial television, radio, satellite, internet protocol and over-the-top (OTT) television could constitute 'broadcasting'.

Regulating in this instance would require a consideration of how current technologies converge with digital platforms. How should broadcasting regulators approach matters related to must-carry, advertising rules or content censoring in the digital age?

We propose that regulation in these and other sectors should adopt a technology-neutral approach, without differentiating whether firms traditionally operate their business or whether they make use of digital platforms. The unequal application of regulation means that the firms making use of these platforms have a competitive advantage over the traditional operators. This is because they have little or no costs of compliance with regulations.

From a competition point of view the Commission supports the stance where rules are applied equally across the board amongst competitors. In this regard, the Commission advocates for regulatory responses that are geared at levelling the playing field and reducing regulatory barriers to entry and expansion.

4.3 Consumer Protection: Data Privacy And Sovereignty

4.3.1 Data privacy

Data protection law has a common objective with competition law in that it seeks to protect individuals from having their data exploited. While we note that competition and consumer protection laws are complementary, they still comprise distinct areas of law, and consumer protection law remains the main legislation to address potential big data harm to individual privacy.

Section 14 of the South African Constitution affords the right to privacy including the right to not have the privacy of communications infringed. This section forms the foundation of the Protection of Personal Information (PoPI) Act, 2013. The purpose of this Act is to give effect to the constitutional right to privacy by safeguarding personal information when processed by a responsible party. However, as with any right under the Constitution, this right is subject to justifiable limitations aimed at, inter alia, balancing the right to privacy against other rights and protecting important interests. These interests include the free flow of information within the Republic and across international borders, regulating how personal information may be processed by establishing conditions, in harmony with international standards, that prescribe minimum threshold requirements for the lawful processing of personal information and providing persons with rights and remedies to protect their personal information from processing that is not per the Act.

The accumulation and use of data contrary to the consent and the privacy of consumers is not solely a concern arising from big digital monopolies. However, their pervasiveness across borders along with their potential market power raises similar concerns referred to above in terms of jurisdictional reach and enforceability. Privacy regulators in developing countries, where they exist, are resource-constrained and need to balance the right to privacy against global connectivity and trade. Should privacy regulators in developing countries get the balance wrong, a business may perceive compliance as too stringent and administratively burdensome which may stifle innovation and cross-border e-commerce to the detriment of consumers. However, the protection of privacy, particularly the exploitation of private information in developing countries is of greater concern, especially where some countries do not have privacy laws and/or the enforcement know-how to provide consumers with meaningful recourse whilst deterring firms from breaching privacy laws.

Box 5: The Bundeskartellamt and Facebook

The decision of the Bundeskartellamt in relation to Facebook provides a vivid example of a single country seeking to enforce different and more stringent privacy standards in order to protect the personal data of individuals. It had ruled that Facebook had abused its position as a market leader in Germany and had violated antitrust law.

Antitrust proceedings against Facebook were initiated in March 2016 and centred on the company's terms of use for the collection and processing of data from "third-party sources". Under these terms, users can only use the social network if Facebook is allowed to collect data about the user from outside of Facebook (i.e. on the Internet or on smartphone apps), and assign the data to the user's Facebook account. Outside the social network, Facebook collects data from the group's other services (e.g. WhatsApp and Instagram) and from third-party websites and apps via "Facebook Business Tools" (e.g. Facebook "Like-Buttons", "Facebook Login" or "Facebook Analytics"). By combining its own and third-party data, Facebook can create an exact profile for each user.

To address these concerns, the Bundeskartellamt ordered that Facebook adapts its terms of use and to change its business model in regard to data collection and processing. Regarding data, it ruled that a kind of "internal unbundling" should take place. The decision was however later successfully appealed by Facebook, where Düsseldorf High Court suspended the Bundeskartellamt's decision. The High Court did not find any anti-competitive results from Facebook's data collection and processing. They further ruled that the collection of third-party data did not lead to the exploitation of its users.

The case was far from over as the Bundeskartellamt has lodged an appeal with the Federal Supreme Court. On 23 June 2020, the Supreme Court provisionally confirmed the alleged abuse of dominant market position by Facebook. It also indicated that "*There are no serious doubts as to Facebook's dominant position in the German market for social networks nor can it be doubted that Facebook abuses this dominant position by using the terms of service…..". "The lack of options available to Facebook users does not only affect their personal autonomy and the exercise of their right to informational self-determination also protected by the General Data Protection Regulation".*

Competitive dynamics in data markets that include personal data are influenced by the laws designed to protect personal data.[75] However, the sole reliance on POPI to address privacy-related concerns would be a mistake, as it cannot contest mergers or exploitative abuses. Indeed, personal information is the currency with which consumers purchase services from digital markets where the product is "free". But consumers in this exchange have limited bargaining power, as the only choice that grants access to the service is to consent to default terms and conditions and privacy changes.[76] It may also be found, upon closer examination, that data-driven firms are fully compliant with POPI while processing personal information for targeted advertising because the consent had been given by the user to make use of the firm's services.

There is an intersection between competition, and privacy and consumer protection. In the design of a regulatory framework, competition authorities and regulatory institutions for consumer protection and data protection should share common goals, such as the promotion of consumer choice and welfare. The intersections between competition, data protection and consumer policy seem to be particularly significant in the digital economy, where transactions involving the transference of personal data play an important role. Hence, to better achieve the common goals and avoid inconsistent approaches, it is recommended strong cooperation and close dialogue between these institutions.

Given the inherent developmental agenda of South Africa, the privacy policy is not immune to concerns arising from digitalisation. This warrants a more collaborative effort across regulators in developing countries, especially where there are separate enforcement mandates, like in South Africa on competition, consumer protection and privacy.

The intersections between competition, data protection and consumer policy seem to be particularly significant in the digital economy, where transactions involving the transference of personal data play an important role. Hence, to better achieve the common goals and avoid inconsistent approaches, it is recommended strong cooperation and close dialogue between these institutions.

4.3.2 Data sovereignty

Data sovereignty, while it does not have a standard definition, concerns the right to ownership and use data, including the ability to access and process such data.[77] The literature reviewed indicates that there are two levels on which data sovereignty can be weakened. Firstly, it is argued that governments that use cloud computing could store data outside their jurisdiction and run the risk of compromising national sovereignty by conceding control over information. Secondly, individuals cease to be data sovereigns if they are unable to enforce claims to power and they are not aware where their personal data is stored and how it is processed and used.[78] [79]

We note that globally countries have been grappling with issues concerning data sovereignty. Countries within the BRICS grouping have adopted divergent approaches to tackle these matters.[80] For instance, Russia imposed data localisation rules applicable to international cloud service providers. The collection and processing of data also require formal registration by the data service providers with the Roskomnadzor, Russia's media oversight agency. Beginning in September 2015, data service providers are obliged to store personal data of Russian citizens on servers based in Russia. India appears to be most interested in the data protection of its international investors, rather than proclaiming sovereignty over its own nationally generated data.[81] For example, India and the UK entered into a "cyber pact" in 2012 intending to protect British data stored in Indian data centres.[82]

In South Africa, section 72 of PoPI regulates the transfer of personal information outside the Republic and therefore broadly determines the issue of "data sovereignty". It also restricts the transfer of personal information to a third party who is in a foreign country unless a set of conditions/considerations are met. In this regard, the PoPI does not broadly restrict the transfer of data outside of South Africa. However, it is more concerned with personal information and regulates how it may lawfully be transferred outside the domestic borders provided that a set of five conditions are met by the responsible party.

The government must not only concern itself with consumer data privacy but also the control of the individual, national and sensitive data generated by the public sector, wherever it may be stored. It is a user of software and hardware that is at the back-end of digital technologies designed by foreign e-commerce entities. This raises the question of a possible competition impact of foreign digital champions gaining control over large data sets of government through surveillance technologies and the potential implications for consumers and markets. For instance, the cross-border flow of information about defence, medical records and tax records without appropriate authorisation and the location of computing facilities outside of the country raise the risk of a national security data breach.

Data governance practises that enhance data sovereignty are emerging in other jurisdictions. For example, the governments of the United States and the United Kingdom have in recent times raised concerns that Huawei's growth in the market for 5G mobile network technologies could provide the Chinese government with undue access to and control over their communication networks. In July 2020 the UK government banned the use of Huawei equipment in its 5G network infrastructure, denying it access to sensitive data sharing.[83]

The South African government should take heed in its commercial interactions with IT service providers to maintain and preserve its data sovereignty. It should impose minimum controls on the information being stored and hold firms accountable for what they do with the data and assign responsibility and accountability for specific databases. These should ideally be included in the service level agreements that State organs enter into with service providers. Companies that store such data should be subject to periodic audit. A national digital strategy should empower the government to review, investigate and take action against any e-commerce activity that threatens data governance and the localisation of national data.

4.4 Industrial Policy In The Digital Economy

The development of internet-based digital technologies calls for a new type of national industrial strategy. Competition and industrial policy require updating for the digital age to help start-ups to effectively compete with dominant platforms. Several industrial policy instruments can enable competition in the digital economy including investment, incentive schemes, supporting national champions in strategic sectors with conditions attached to state support, public procurement (local content designations), trade defence instruments (tariffs and anti-dumping duties) and appropriate use of competition protectionist approaches such as reviews of acquisitions by foreign firms. These strategic industrial policy levers should feature in a national digital framework that will act as a roadmap for the wider industrial effort in the digital economy. Competition law and policy will need to build on these interventions that have been earmarked by the government. In this way, competition law and industrial policy can make a useful contribution in making digital markets competitive and open to local digital firms.

Understanding the opportunities and limitations of digitalisation in the South African context will provide important insights into the investment and non-financial needs of domestic SMEs that can be addressed by private-public partnerships. For instance, in the food and agro-processing sector where the Commission has uncovered high barriers to entry and expansion facing emerging farmers to access foreign markets.[84] Incentive schemes that can make export markets more accessible to domestic SMEs, including by linking them to global value chains, should feature in the master plans and a national digital strategy.[85]

As part of its industrial strategy, policymakers can provide subsidies or indirect support to local firms that are innovative or use existing products and services that can be incrementally improved and help them compete in the global market. These firms would be considered "national champions." India has successfully incubated national champions into global brands, such as Coal India and Tata Motors. The government's draft e-commerce policy makes a strong case for championing and scaling Indian online marketplaces and has implications for foreign-owned e-commerce enterprises operating in India. Key recommendations include barring holding companies of e-commerce players from directly or indirectly influencing sale prices in the domestic market and also suggests Indian-owned and Indian-controlled online marketplaces be allowed to hold inventory as long as the products are domestically produced. In May 2020 India launched a portal 'Champions' to assist small enterprises to develop into national and global champions. It is a tech-driven control room management information system that provides industry support and resolution of grievances relating to regulation.[86]

There may be a case to protect or champion national digital firms to enable them to compete globally, as part of a broader industrial policy. However, in a developing country, this promotion of national champions, without market access for small businesses, may deepen a monopolistic market structure, inhibit innovation and raise high barriers to entry which undermine competitive rivalry. Today's champions can be tomorrow's dominant firms. Therefore, conditions must be attached to state support (subsidies and incentives) to ensure that the beneficiary firms reciprocate through appropriate investment behaviour, public interest obligations and performance. State support must be short term and conditional on market performance. This principle of reciprocity or 'quid pro quo' approach to industrial policy promotes competitive rivalry, innovation and mitigates future concentration.

A notable example of the connection between industrial policy drivers for national champions and competition is the merger attempt between Siemens and Alstom in the European Union.[87] The case was a transaction between two national champions in the high-speed train market who sought to combine their rail assets and resources in anticipation of increased competition from China. Ultimately the European Commission prohibited the merger, but it sparked a political response to subject foreign companies that target Europe's national champions to scrutiny. It leads to the introduction of a European foreign investment screening framework in force as of April 2019, which enables cooperation in relation to the national screening of acquisitions by foreign entities.[88] This is an example of a protectionist approach which requires merger control rules to take account of industrial policy objectives. The President of the European Commission, Margaret Vestager, announced that the European Commission as of 1 November 2019 is a "geopolitical Commission" given its task is to ensure that competition policy and rules are fit for the modern economy but also contribute to political objectives of strengthening the local industry.

In South Africa, the Competition Amendment Act of 2018 introduced a similar protectionist mechanism in merger proceedings involving a foreign acquiring firm. Section 18A of the Competition Amendment Act provides the President must constitute a committee to determine if a merger in a designated sector involving a foreign acquiring firm may have an adverse effect on national security interests. This mechanism featured in the Commission's approval of the merger in which Simba (Pty) Ltd, a subsidiary of PepsiCo - a foreign producer of packaged goods and snacks - acquired Pioneer Foods Group Limited - a South African producer of food and beverage products - subject to certain conditions.[89] The Competition Tribunal approved the merger subject to several public interest commitments including significant investment in the operations of the merged entity, the agricultural sector and the establishment of an enterprise development fund.

In recent years, countries have taken protectionist policy decisions to protect their domestic markets from foreign competition.[90] A question arising is if protectionist policies are effective in a digital environment characterised by seamless access or cross-border data flows because data is intangible and highly tradable.

Trade policymakers are struggling to develop shared norms for digital protectionism and regulate it.[91] For example, some consider EU efforts to establish the digital single market as an EU-wide approach to protectionism. Nations such as China are using digital protectionism to censor information flows and impede online market access beyond its borders. It will be a challenge to set international rules for or against digital protectionism in both large and developing economies because the competitive conditions in each economy are different. International rules and standards will need to be developed to enable the cross-border flow of data without compromising data protection rules, prevent the forced localisation of data and facilitate access to data. The World Trade Organisation is best placed to make universal rules to govern digital trade because it covers 164 nations.[92]

The DTIC is developing several master plans to help create conducive conditions for local industries to grow. These are industry-led partnerships with the State, to identify high growth areas for targeted investment and other support such as enterprise supplier development initiatives in key sectors of the economy, including the

digital, automotive, steel, textiles, sugar and furniture industries. The master plans should also promote investment and provide for incentive schemes that can make export markets more accessible to domestic SMEs, including by linking them to global value chains.

In summary, South Africa needs a cross-cutting national digital strategy that:

- includes an investment strategy to guide the sectoral approach in each sector. In this regard, the industrial policy must facilitate investment in (i) digital infrastructure, (ii) skills development and (iii) digital firms, particularly SME's;
- includes stimulating investment in local enterprise development by creating a conducive regulatory framework for digital firms and by undertaking active support measures, which may include establishing technology or innovation hubs and incubators, building or improving e-government services, supporting innovative financing approaches and instituting skill-building programmes;
- identifies new and niche markets for local digital firms, such as digital applications adapted to specific local conditions in sectors such as agriculture, education and health;
- provides for incentive schemes that can make export markets more accessible to domestic SMEs, including by linking them to global value chains;
- supports national champions through industrial policy. As part of the industrial strategy, policymakers may provide subsidies or indirect support to local firms that are innovative or use existing products and services that can be incrementally improved and help them compete in the global market. National champions must face competitive rivalry and reciprocate through investment and performance. Reciprocal control mechanisms can be incorporated in national industrial policy frameworks to ensure that economic outcomes are in line with performance targets[93];
- uses emerging technologies to boost the governance of public procurement, such as algorithmic trading software.[94]

4.5 Digitalising Government Services

The shift to an internet-based economy necessitates a digitalisation and synchronisation of e-government services such as e-health, online education revenue collection and finance. The government can leverage on advances brought upon by technological innovations (such as cloud computing, internet of things (IoT), big data, and mobile innovations) to drive the success of digitalising government and delivering public services to its citizens.[95]

In order to advance the quality of education in public schools, education departments must move beyond the textbook, which is being superseded by the internet. The effects of the Covid-19 pandemic in the country exposed the persistent inequalities in public education. With schools shut, the plan was for learning to take place remotely through online learning but many children in this country learn at school and do not have access to the internet. With greater internet access and roll-out of e-education services, educational resources can be accessed anywhere, whether at school or home. Digital transformation in the healthcare sector requires the use of data analytics for management of dreaded diseases and chronic diseases, such as tuberculosis and HIV-AIDS. The sharing of quality, accurate health data to the public during the Covid-19 pandemic is an example of leveraging e-services for effective service delivery.

The National e-Government Strategy provides a broad guideline on how this internet-based innovation in government services can be achieved. The vision for this strategy is to digitalise government services while transforming South Africa into an inclusive digital society where all citizens can benefit from the opportunities offered by digital and mobile technologies to improve their quality of life. The strategy aims to optimise service delivery that provides universal access to government information and services. The framework aims to ensure that all South Africans can access quality public service and government information, reduce the cost of public administration in South Africa, and harmonise the policy environment and legislative framework to enable digital transformation and provide socio-economic development opportunities by empowering rural communities.[96] This is fundamental for a developing economy such as South Africa because e-government services can enhance cross border trade, income opportunities for small business, and increased access of public services by underserved communities and the previously disadvantaged.

The regulation of digital markets requires greater coordination, collaboration and connection in the agendas of national regulatory agencies. Regulators participating in the digital economy will include general regulators, such as competition regulators, consumer protection regulators and personal data information regulators, whose functions are not sector-specific, and sector-specific regulators, such as the electronic communications sector regulators, banking and financial regulators, health professions regulators, and transport regulators. Some matters will be attributable to the mandate of a particular regulator, while other matters will fall in the overlapping mandates across regulators.

Given the level and adequacy of their technical expertise, the government needs to adopt a 'whole-of-government approach' and engage a broad and diverse range of stakeholders for regulatory effectiveness in the era of digitalisation. The Independent Communications Authority of South Africa (ICASA) has an important role to play in the management of spectrum licensing and ICT infrastructure. Competition regulation is needed to regulate the potential for consumer lock-in and cases of abuse of dominance by big tech. The Department of Communications and Digital Technologies will be instrumental in the roll-out of the National e-Government Strategy and the provision of inclusive communication services to all South Africans. With respect to consumer protection for cloud-related services, the Protection of Personal Information Act 4 of 2018 (POPI) introduces a new regulator, the Information Regulator, whose functions include monitoring and enforcing compliance with POPI by public and private bodies. In view of their cross-sectoral nature and adequacy of technical expertise, in regulating digital technologies, it calls for increased dialogue and coherence among these regulators.[97]

4.6 Promoting Inclusion In Financial Services

The disruption brought about by digitization in banking and financial services are monumental; each segment of the value chain- from currency to banking and insurance- has been affected. This calls for a rethink in the manner in which the financial system is defined and regulated. Whereas licenses were the traditional barriers for new entrants in financial services, "big learning" from big data is now the regulatory frontier. Whilst the historical markers for financial stability focused on incumbent players, digitization requires a regulatory shift that encompasses financial networks (which include firms in telecoms, e-commerce) more broadly. Definitions of institutions which are "systemically important" must be reviewed, with the advent of BigTech.

Earlier we stated that fintech refers to computer programs and other technology used to create, support or enable banking and financial services but added that the large technology firms or 'big tech', namely Apple, Google, Amazon and Facebook are well poised to enter the fintech market given their access to consumer data, consumer profiles and preferences. Indeed Google Pay, which has existed under different brands since 2006, is a financial service that allows consumers to transfer funds at no cost to the consumer.

Ultimately the Commission favours a regulatory approach that promotes the inclusion of fintech and enables their access to the national payments system, banking platforms and provides for their licensing in a fair regulatory landscape. Rather than protecting incumbents, regulation should protect the payments system for the benefit of consumers. In this regard, the financial regulators should explore regulation that can allow non-banks such as mobile network operators (and now big tech) to enter the national payments system; settlement and clearance system. In particular, financial system regulators should review the ecosystem of regulation that enables entry and participation in the system, including licencing and trading condition, data ownership, portability and system operability- all of which remain key elements that will ensure fair competition in banking services

Currently, there are greater levels of regulation targeting those institutions regarded as posing a high systemic risk, that is the "too big to fail" and "too large to ignore" group of companies, and less on fintech and Big Tech. Yet, fintech and Big Tech tend to operate outside of traditional sector regulation: financial stability, anti-money laundering, consumer protection and so forth. Because of the potential systemic risks posed by the

entry of FinTech and BigTech, as has been highlighted in an earlier chapter, regulatory design for the inevitable competition arising from the entry of tech players must be appropriate. In order to prevent systemic risks, regulation should put the relevant "walls" to manage potential harm if commercial and banking functions are blurred. It should be noted that regulating part of the market whilst ignoring a significant portion which poses a systemic risk, namely fintech and big tech, is the real systemic risk. Capturing these functions through regulation would enable better oversight and prevent shadow banking.

Finally, in a digitalised world that can be exclusionary for many citizens, particularly the poor, deliberate consideration of inclusion by policymakers is more pertinent. Promoting greater inclusion of citizens in financial services is ultimately both a function of innovation and regulation. Banks, mobile network operators and the private financial sector role-players should begin the relevant innovations and product offerings that will deliver a cashless future for South African consumers. The challenges that South Africa has faced regarding the payment of social grants over the years have been more starkly pronounced during the current Covid19 pandemic, as millions of citizens must collect relief grants in-person from physical pay-points. The risk to security and health of many is certainly preventable through a regulatory embrace of technological solutions. Solutions by firms that enable the participation of marginalised groups should, in principle, be supported through regulation. However, South Africa's regulatory framework has not always achieved this balance, as has been the case concerning mobile money operators and their attempts to access the payment system. Mobile money operators in South Africa constitute as non-banks. They, therefore, cannot settle and clear payments and must therefore be sponsored by a registered bank to operate. This dependency increases costs for the operator and constrains its ability to be an effective competitor with registered banks. Stakeholders interviewed during the Commission's banking inquiry noted that there were conflicts of interest between banks and mobile money operators which made such joint ventures difficult. The current review of the payment system regulation should consider how best barriers to entry can be lowered, whilst continuing to guard against systemic risks.

4.7 Prioritisation For Maximum Effectiveness

In the developing world, there is some evidence to support the idea that targeting and prioritising specific industries for large scale and accelerated digital penetration can spur on faster, deeper and more meaningful growth in digital markets than if digital development were to occur without prioritisation. In India, for example, newly digitising sectors – such as financial services, agriculture, education, retail and logistics - are expected to deliver significant economic value by 2025. These industries are thus touted as worthy of investment for the returns they are likely to generate in the digital economy. The benefits of digital applications to productivity and efficiency in each of these newly digitising sectors are already visible. For example, in logistics, tracking vehicles in real-time has enabled shippers to reduce fleet turnaround time by 50 to 70 percent. Similarly, digitising supply chains allows companies to reduce their inventory by up to 20 percent. Farmers can cut the cost of growing rice by 15 to 20 percent using data on soil conditions that enables them to minimise the use of fertilisers and other inputs.[98]

China, on the other hand, has seen varying degrees of digitalisation across sectors with the least digitalised being agriculture. Overall, the service sector is the most digitalised, with ICT contributing to 33 percent of the sector's value-added in 2017. The industrial sector is lagging, with ICT contributing 17 percent of its value-added. The agriculture sector is the least digitalised, with only 7 percent of digitalisation. There is also substantial variation among subsectors. In services, the most ICT intensive subsectors are mostly in financial services and entertainment; In the industrial sector, the advanced manufacturing sector is also more digitalised.[99]

However, it is in financial technology that both India and China report the most potential for growth in the digital economy. Of all the newly digitising sectors anticipated to deliver economic value in India, financial services are cited as the most promising. India's internet user base has grown rapidly in recent years, propelled by the decreasing cost and increasing availability of smartphones and high-speed connectivity, and is now one of the largest in the world. The share of Indian adults with at least one digital financial account has more than doubled since 2011, to 80 percent, thanks in large part to the more than 332 million people who opened mobile phone-based accounts under the government's Jan-Dhan Yojana mass financial-inclusion programme. The government also triggered a growth spike in digital payments through the launch, in 2014, of the Pradhan Mantri Jan-Dhan Yojana, the national financial inclusion drive, which led millions of people to open Aadhaar-authenticated bank accounts linked to mobile phones. Indians have opened 337 million Jan-Dhan accounts, a threefold jump in four years. One of the effects of the government's move to demonetise high-denomination currency notes in November 2016 was to remove any legal and regulatory barriers to digital payments. Financial technology innovation has grown rapidly. One survey ranked India second in the strength of the fintech movement, with 77 percent of consumers saying they use at least one non-traditional firm for financial services. Some are reaching huge scale: Alibaba-backed Paytm, India's largest mobile payments and commerce platform, has more than 300 million registered mobile wallet users and six million merchants. Other players are also growing rapidly. Freecharge, with over 54 million wallet customers, handled 500 million transactions in June 2017.[100]

Despite India's explosive digital growth amongst individuals, potential still exists to digitalise the large number of cash transactions still prevalent amongst small and micro-sized businesses. More than 80 percent of all retail outlets in India—most of them sole proprietorships or mom-and-pop shops—operate in the cash-driven informal economy. That compares with 55 percent of retailers in China and 35 percent in Brazil. Because a large part of their trade happens in cash, owners of these businesses do not generate the financial records needed to apply for a bank loan. Digital payments automatically create financial records to establish the creditworthiness of both the store and its customers, making access to formal finance easier.

China's success in the digital economy is attributed, in large part, to the potential presented by the financial sector. It is reported that China's climb to the top of the digital revolution started with a relatively large financially-underserved population. In the early days of digital development, financial inclusion was still limited in China compared to advanced economies. In 2011, account ownership among adults was 64 percent in China, compared to more than 90 percent in Japan, Korea and Germany. Small and medium enterprises also had limited access to credit via the formal banking channel. This resulted in sizable demand for services from non-bank financial service providers. The application of information technology to the provision of financial services – has surged in recent years, with China emerging as a global leader. The massive scale of China's markets and a "light touch" from regulators and supervisors in the early years supported China's fintech development. Leveraging existing social-media platforms, China's fintech services include several key areas: third-party payments by non-bank digital providers, peer-to-peer lending, internet credit, including microlending, internet-based banking and insurance, digital wealth management, and credit-ratings. Notably, large, dominant fintech players in China – Tencent and Alibaba – have branched beyond their traditional niche to other areas of the finance supply chain, building an integrated ecosystem of financial services that link customers with businesses. Within fintech, the following advancements stand out as significant contributors to digital growth:

- third-party mobile payment on non-bank platforms
- peer-to-peer lending ("P2P") – loan transactions on an internet platform
- microlending from internet banks
- the emergence of Yuerbao—an online money market fund developed by Ant Financial in 2013[101]

China's fintech development has a uniquely high level of integration across different parts of the finance supply chain. Companies that had early successes in the fintech space have built an ecosystem along the entire finance supply chain, broadening and linking their core businesses to consumers. Examples include tech giants Alibaba, Ant Financial, Tencent, JD.com, Baidu, and the financial conglomerate Ping An. For example, beyond Alipay, Ant Financial also provides consumer loans SME lending through Ant Credit Pay, microloans to SMEs, asset management services through Ant Fortune, and private and independent credit scoring service. By contrast, firms in the U.S. such as Visa and MasterCard, or digital payment companies such as PayPal, have focused almost exclusively on one or a few core businesses with no offline integration across business lines.[102]

4.8 A Role For Regional Coordination

There is a greater need for coordinated enforcement action and regulation regionally and globally. It is evident that even for larger jurisdictions like the European Union, a cooperative approach provides greater leverage and enforcement resources, but also enables common solutions to be found that might result in more consistent regulation of these global firms across jurisdictions in which they operate. Indeed, the EU itself has adopted a "Single Digital Market Strategy" to realise these benefits for its citizens and firms within the European Union. Fortunately for the European Union there exist political and legislative means of doing so, but this is not the case for developing countries like South Africa. We need to find one.

Regional or even continental coordination in the case of Africa is imperative as it will provide more leverage in dealing with issues that may have a regional or continental dimension. These may include merger transactions amongst digital firms with a stronger regional presence than their position globally, or where there is a shared developmental objective. Much like the European Union, stronger regional or continental coordination would also permit greater consistency in approach across Africa which might also provide benefits to such global companies and African ones demanding scale from cross-border expansion.

Coordination might also resolve some of the resource constraints that would face individual authorities in dealing with these matters. We, however, note that the current regional or continental bodies (for example COMESA or SADC) operating in Africa may not readily have the required legal instruments to allow for regional enforcement such as there may be with a supranational competition regulator on the continent. Whilst there is some progress observed in establishing the African Continental Free Trade Area (AfCFTA), this does not preclude initiatives by domestic competition regulators to use the platform provided by the AfCFTA to consider mechanisms that would deepen cooperation on the continent with particular focus on the impact of digitalisation.

Given the substantive harmonisation of most competition laws on the continent, there is scope to springboard closer enforcement cooperation in anticipation of African economic integration through the AfCFTA. The first step towards this is ensuring that all member states across the continent pass relevant competition laws and regulations, which should be supported by strong enforcement institutions that will anchor the implementation of competition policy and regulation on the continent.

Further, the African Competition Forum (ACF), an organisation consisting of 32 African competition regulators and 6 regional bodies could be leveraged to develop formal committees dedicated to systematically ensuring and recording the consistent enforcement of competition laws across the continent, capacity building and technical assistance, exchange of information and best practices as well as research and advocacy. These new areas that could be undertaken by the ACF need to be supported by existing authorities both domestically and within Regional Economic Communities (RECs) recognised by the African Union. Given the common developmental agenda, further cooperation within the continent and through the ACF could be geared towards finding a common regulatory approach to assist local start-ups to gain scale across African markets, particularly as the AfCFTA progresses. Developing markets are typically small and so cannot build the scale in home markets that the United States and European Union firms can. So, for ease of rollout, a common regulatory approach would enable local African start-ups to meet the global challenges.

Beyond coordination on the African continent, developing countries need to explore ways in which enforcement and remedial action in the larger jurisdictions are rolled out to smaller jurisdictions. Sometimes this happens naturally, for instance where there is a common global digital service interface such that any remedial changes are applied globally. However, in many instances, this is not the case. One solution is for smaller jurisdictions to monitor and keep abreast of investigations and referrals in other jurisdictions. Again here, the role of the ACF as a platform for coordination could be instrumental in collating and disseminating such information. The aim would be to determine relevance for each jurisdiction before seeking a similar order against the firm leveraging off the foreign finding. Longer-term, we might seek a legal instrument for facilitating automatic changes domestically where adverse findings are made against a global firm operating the same business model locally. Currently, developing countries which are signatories to the UNCTAD-DGIC (Discussion Group on International Cooperation) have, in principle, agreed to a cooperation framework which allows for information exchanges and debate on enforcement action with a cross-country impact. However, the extent to which this legal instrument would be sufficient in addressing enforcement action for digital markets remains uncertain.

CHAPTER 5

IMPACT OF COVID-19 ON THE DIGITAL ECONOMY

The onset of COVID19 has had a major impact on both the industrial economy and the digital economy. According to the International Monetary Fund (IMF), the pandemic is anticipated to cause a recession in several developed countries.[103] The IMF described the decline as the worst since the Great Depression of the 1930s.

The impact of the pandemic on individual businesses, though largely negative – as can be seen from global economic figures – has varied depending on the nature of the business. Firms operating in travel, tourism and hospitality were hard hit as governments around the world ordered national lockdowns, social distancing protocols and issued stay-at-home orders. At the same time, however, other companies experienced a rise in fortunes like they had never anticipated before.

While Comair – an airline that has run a profitable operation for 74 years – began business rescue proceedings in May 2020[104], Amazon advertised 100 000 full-time and part-time positions in its fulfilment centres and delivery network as e-commerce demand spiked.[105] As 90 staff members of the Hilton Hotel in Cape Town reported that they were struggling financially, after they were not paid their April salaries by the ailing global hotel group[106], Google offered its full-time global workforce, numbering more than 100 000, 14 weeks of family leave due to the global pandemic. According to the tech giant, employees could choose to take consecutive weeks off or adjust their working hours over several days.[107]

Uber and Lyft, both popular e-hailing companies dependent on the movement of people, reported that their businesses had *"all but collapsed in March"* though they were confident of a turn-around in future.[108] Some technology companies experienced an increase in share prices due to their home-based digital offering. For instance, shares in technology companies such as Zoom shot up, as more people relied on video conference calls and email to hold meetings or get tasks done. Amazon's share price hit new highs, while streaming platform Netflix was at one point a more valuable company than oil giant ExxonMobil.[109]

Here at home, the government's response to COVID19 exposed the economic divide in the country. Since the start of the national lockdown, news media were reporting on scores of families who went from earning little to earning nothing on very short notice – leading them to feed on food parcels being handed out by the State and humanitarian groups.

The digital divide was also exposed as those with low or no connectivity struggled to maintain productivity at work or to keep the school going children educated at the same pace as their connected peers. When the government ordered a national lockdown, many schools asked parents to ensure that learning continued at home. Online learning was touted as an obvious way to keep lessons going, however, only a few schools had well-established online learning systems. Additional challenges for parents included limited data access and power blackouts.[110] Companies like Telkom, Khan Academy, Mindset, Siyavula, MTN and Vodacom helped by zero-rating educational content on their platforms.

Another consequence of low connectivity during the COVID19 restrictions is the limited access to work opportunities that the unemployed face. Under level 4 restrictions, for instance, food deliveries were permitted which meant that e-delivery companies like Uber Eats and Mr D Food were able to operate. These firms rely on networks of drivers to service their customers, but potential drivers would need reliable connectivity to become part of the network.

Figure 6: Shares in Zoom, Netflix and Amazon on the rise

The competition and consumer authorities have also been confronted with a large pool of complaints on excessive pricing of essential products since the declaration of the national disaster. Retailers and pharmaceutical companies experienced a surge in sales of certain products due to 'panic buying'. The consumer protection regulations were, as a result, issued in March 2020, which together with existing competition regulations, deal with pricing and supply matters during the national disaster. The objective of these regulations is to prevent unjustified price hikes.

The Commission has successfully prosecuted two firms before the Tribunal, namely, Babelegi Workwear and Dis-Chem Pharmacies for excessive pricing of face masks during the pandemic to the detriment of consumers.[111] [112] It has also concluded settlement agreements with several firms that admitted guilt on price gouging and agreed to pay penalties. The Commission is currently pursuing complaints on excessive pricing, price discrimination and exclusionary conduct against an online retailer, a global internet group and food delivery companies.

Even though several companies operating in digital markets have been able to come on board to contribute solutions to the education concerns brought about by the national lockdown, the pandemic exposed South Africa's slow progress in harnessing the benefits of the digital economy. Undoubtedly, those with better connectivity have been faring better under COVID19 restrictions than those with no connectivity. COVID19 has thus highlighted the need for South Africa to speedily take up the reforms offered by the digital economy.

COVID19 locally, as with internationally, has provided the impetus to the online economy as the response to the crisis has promoted online commerce at the expense of brick 'n mortar retailers, and online work solutions using a range of online tools. This is partly the result of lockdown rules which favour online commerce, but also due to consumers seeking to limit their exposure. The sudden step-change rise in the digital economy creates opportunities for new entrants and business models due to market demand growth. However, it also provides scope for dominant online firms to entrench and abuse their position.

For instance, the dependency of restaurants on online delivery platforms when they remain closed to walk-

in customers results in a shift in market power to these platforms. Reports are that numerous chains are not opening due to the uneconomic commissions charged by the delivery firms. Practices such as MFN pricing for restaurants may limit the emergence of competitors, or the spike in demand may facilitate the rapid rise of a competitor. Similarly, online commerce may start to consolidate around the market leader, or the rapid growth may provide the impetus for retailers to invest in their delivery systems.

Either way, the accelerated shift to the online economy will reduce the timelines for enforcement action. A decisive and proactive stance needs to be taken in order to ensure the balance of economic forces favour a shift to facilitating entry and a more competitive digital market. This requires removing the entry barriers, including those erected by dominant platforms, and preventing consolidation at this critical moment in the development of the online economy in South Africa.

CONCLUSION

Competition law in the digital era

The Commission recognizes that markets in the digital economy present novel challenges in detecting, assessing and remedying anticompetitive conduct and transactions. Further, although the digital economy operates globally with little regard for physical borders and local considerations, it remains in the interests of all South Africans to promote a competitive digital landscape that enables inclusivity rather than exclusivity, supports opportunities for work and that encourages the establishment and growth of local digital players. This is not only the responsibility of regulators but also firms operating in the digital economy and their local branches where these exist. In this regard, firms are encouraged to be aware of the type of conduct that could amount to anti-competitive conduct in the Competition Act and to operate in a manner that honours the letter and the spirit of the provisions set out in the Act.

The over-riding strategy in the enforcement of competition law is to proactively prevent what are mostly contestable digital markets currently from becoming concentrated. This strategy is premised on the fact that digital markets have tendencies to tip towards a 'winner takes all' environment, or one where a few firms dominate, and the accepted difficulties in reversing that position once the markets have tipped, as well as regulating the behaviour of dominant firms. A strategy aimed at retaining contestability also supports the broader objective of more inclusive digital markets and a reversal of some of the high levels of concentration in industrial markets. As such, it is consistent with the overall mandate of the Commission in respect of reducing concentration and increasing participation in the economy.

A proactive competition law strategy requires strong coherence across the different elements of enforcement to be effective. Market conduct needs to address conduct which may exclude rivals and entrench dominance, whilst merger control needs to be vigilant against acquisitions which strengthen conglomerate and data advantages of leading digital firms that may be used to exclude rivals in future. Merger control also needs to ensure that potential competitors in adjacent product markets or other geographic markets enter and contest the digital market space in South Africa rather than buy up leading existing competitors in those spaces. Cartel enforcement supports through ensuring that new methods of collective abuse are not exploited by firms that should be competing to deliver better consumer products and prices.

Such a programme also requires that the Commission commit to dedicating resources to improve its knowledge of markets operating in the digital economy and develop tools for appropriate detection and assessment of anti-competitive conduct and transactions in the digital economy. It also requires that the Commission commit to specific interventions designed to preserve competition where it exists and prevent abuse where it is absent. The Competition law strategy outlined in this chapter seeks to achieve that.

Globally competition authorities appreciate that this tendency to concentration in part reflects the underlying economic characteristics of many of these markets, and facilitating a level playing field may require a range of other policy tools, such as data access and privacy regimes, to best address these market features and retain contestability of markets. The Commission shares the view that competition law alone cannot address the tendency to concentration in digital markets.

For this reason, the Commission strategy incorporates advocacy around a broader set of competition policy and regulatory tools aimed at ensuring these markets remain contestable. That chapter sets out the areas which the Commission believes are necessary to retain a contestable and inclusive digital market space, and some of the specific principles of regulation that the Commission believes are necessary. These include level playing fields and facilitating access by potential entrants to enabling assets such as the private South African consumer data accumulated and held by dominant companies, many foreign, whilst at the same time protecting consumer privacy and security.

The Commission also calls upon platform-based firms and other companies operating in the digital space to heed the principles of inclusivity and competition.

Regulation in the digital economy

According to Arbache, the Vice President of the Development Bank of Latin America, *it is widely agreed that governments of emerging economies need to work on several fronts in order to enable the digital transition and reap the associated benefits. These areas of intervention include reducing capacity constraints and improving skills; investments in ICT ecosystems, connectivity, and digital infrastructure; agreements to promote ICT adoption and diffusion as well as market access; regulatory frameworks that foster competition and market conditions; and policies to boost investment and innovation.* These interventions are similar to those put forward in this publication. It is the Commission's view that pursuing pro-competitive policies and implementing pro-competitive reforms, where required, will contribute positively to South Africa's desire to achieve more equitable levels of equality, employment and shared prosperity.

In this document, we suggest ways for Government and policy to consider in regulating respective sectors. We proposed regulatory principles for lawmakers to take into account when designing policy interventions. These are principles aimed at ensuring fairness in markets and promoting greater inclusion and participation of new or smaller players.

In this strategy document, we have made the call for urgent investment in technological infrastructure: Investment decisions should be linked to policy objectives in a National Digital Strategy that guides the sectoral approach in each priority sector is needed. Measures must be created that facilitate investment to (i) digital infrastructure, (ii) skills development and (iii) digital firms (SMEs). Further, the Government can influence market structure by supporting selected suppliers that will boost industrial competitiveness. Support can be in the form of subsidies or indirect support (access to global value chains) to domestic SMEs. The government must work with the WTO to develop international standards to regulate digital protectionism.

Consumers find themselves in a paradox whereby they are empowered by technological changes, but equally, face greater vulnerability because of digitization. The Commission raises data protection as a central element in consumer protection that regulators must consider. Data privacy and consumer protection must be balanced with intellectual property rights that are suitable for the digital world.

When regulating for specific sectors such as tourism and transport, in response to the disruption posed by share-economy platforms such as AirBnB and Uber respectively, the Commission supports the stance where rules are applied equally across the board amongst all competitors. In this regard, The Commission supports the stance where rules are applied equally across the board amongst competitors, with regulation that is aimed at levelling the playing field and reducing regulatory barriers to entry and expansion.

As such, we advocate for a technology-neutral approach that minimizes distortions in markets. The Commission supports the stance where rules are applied equally across the board amongst competitors, with regulation that is aimed at levelling the playing field and reducing regulatory barriers to entry and expansion.

This principle is equally applicable to financial sector regulation, which has the potential to promote greater inclusion among the poor and unbanked, whilst also harnessing opportunities provided by FinTech. The South African Reserve Bank and its family of regulators can begin to prepare the relevant regulatory environment that will enable connectivity, in anticipation of a move towards a cashless economy. Given the potential entry of big tech into the financial industry, the rules which govern how banks interface with commercial activity should be reviewed or clarified in a way that prevents risks, whilst enabling competition. The regulatory emphasis should remain on financial stability but also on financial networks more broadly. Fintech must be regulated to ultimately promote the stated benefits, namely financial inclusion, technological innovation, employment creation, economic growth and market efficiency - which requires a more collaborative approach to regulation going forward.

Overall, the Covid-19 pandemic offers an opportunity for stakeholders to fast-track the implementation of solutions to South Africa's intractable problems; the pandemic also offers an opportunity to reset the socio-economic contract among South Africans. Business, Government and the competition authorities can respectively and together, reset their agendas in a manner that enables us to realize the digital future imagined, as articulated at the beginning of this document.

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