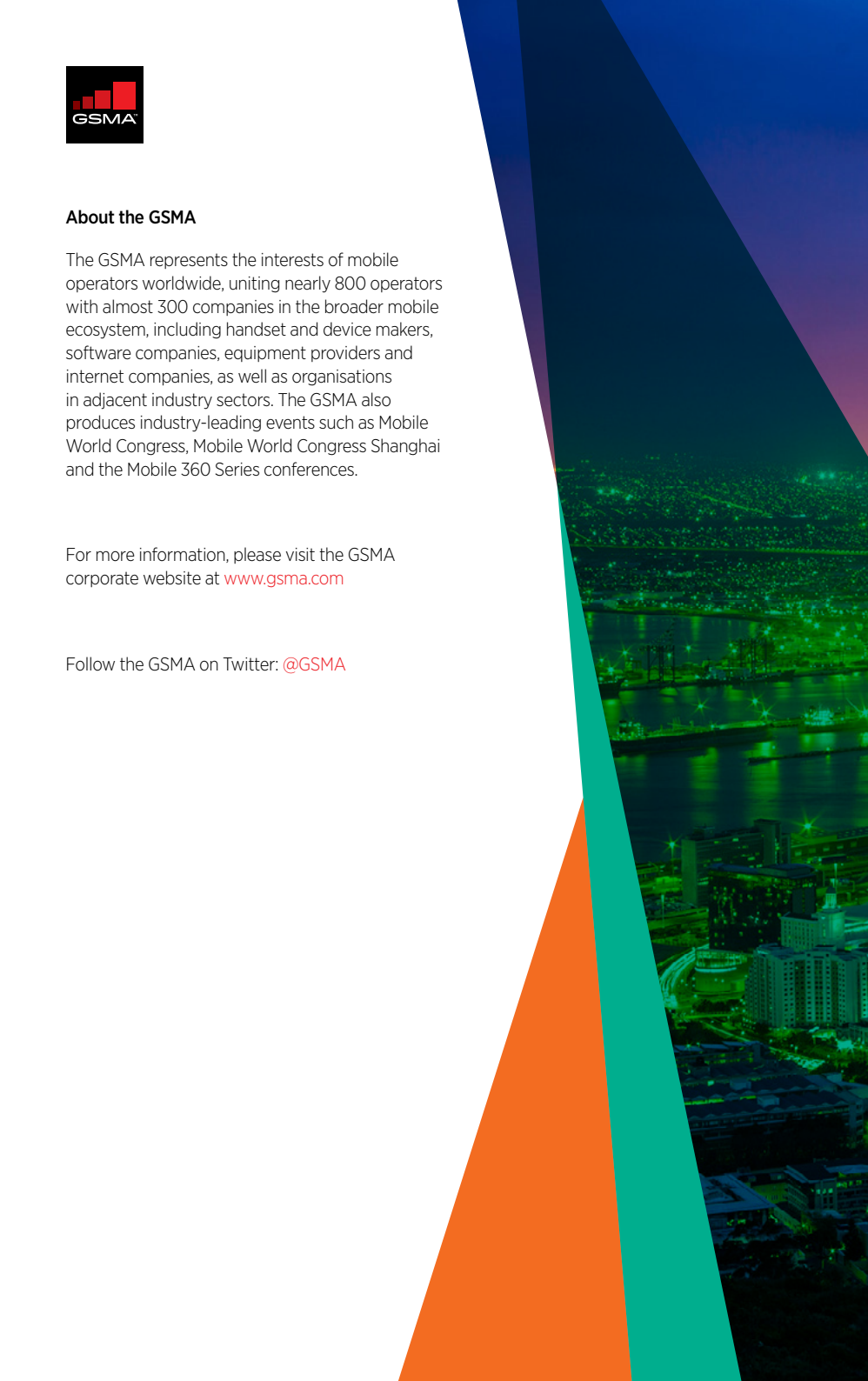
COMPETITION POLICY IN THE DIGITAL AGE

Case Studies from Asia and Sub-Saharan Africa

2016



About the GSMA

The GSMA represents the interests of mobile operators worldwide, uniting nearly 800 operators with almost 300 companies in the broader mobile ecosystem, including handset and device makers, software companies, equipment providers and internet companies, as well as organisations in adjacent industry sectors. The GSMA also produces industry-leading events such as Mobile World Congress, Mobile World Congress Shanghai and the Mobile 360 Series conferences.

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About this booklet

This booklet is for you if you have an interest in competition policy in the digital communications sector. There are chapters on Sub-Saharan Africa and Asia, so this booklet is for you specifically, if you are considering aspects of competition law and regulation in these regions. You are:

- **A lawmaker.** There is a need to consider the balance between sectoral regulation and competition law. The evidence presented in this booklet points overwhelmingly to the benefits (for the economy as a whole) brought about by enactment of a modern competition law, properly enforced by a well-resourced competition authority. More resources should therefore be allocated to competition authorities, and the balance with the sectoral regulator(s) reconsidered. The demarcation of the jurisdiction between the two agencies should be better understood and clarified, if necessary. This should be done both at the national level and in supra-national organisations.
- **An enforcer of regulation**, with or without concurrent competition law powers, who wants to understand how to regulate the telecoms sector in the digital economy, taking into account what competition law enforcers can do.
- **An enforcer of competition law** who wants to consider more deeply the interplay with sectoral regulation and gain a better understanding of the dynamics in the digital economy, where, due to historical reasons, some players are regulated and others are not. Enforcers of regulation and competition law who want to understand and improve the coordination between their respective areas. Collaboration between the agencies is important, both at the national level and in the supra-national context.

Acknowledgments

This booklet could not have been drafted without the help and cooperation of many contributors both from operators and industry players and internally.

Within the GSMA, special thanks go to Kalvin Bahia, David Darwin, Arran Riddle, Serafino Abate and Brett Tarnutzer. In this booklet, care has been taken to be as accurate as possible but all information is taken from publicly available resources which may not be accurate in all cases. The GSMA intends to update this case studies booklet regularly. Please send all comments to comphandbook@gsma.com

PDF Navigation Instructions

This booklet is intended as a reference, and is a companion to the GSMA Competition Policy Handbook. Following the review of the case studies, we have identified five main features of best practice in competition policy that are fundamental to a proper consideration of the issues that arise in the digital economy. We look at Sub-Saharan Africa and Asia to see whether these features are present in the geographies considered. We develop recommendations for policymakers and agencies that are responsible for devising and applying competition policy in the digital age.

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There are examples of more converged regulators for telecommunications and media in Hong Kong, Malaysia and soon Singapore – no regulatory regime applies to the players of the digital age in their entirety. This focus on regulating the telecoms sector is historical. As an example, regulation is required due to the link between WTO trade agreements and telecoms liberalisation and regulation, as described above (see The International Dimension in the introductory chapters).

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Foreword

This booklet is intended as a companion resource to the GSMA Competition Policy Handbook. Existing regulators and competition authorities have the task of enforcing competition policy. They can do a lot to ensure that regulation is only imposed where necessary, recognising that the application of competition law is best suited to the converged digital economy. A careful market appraisal, taking into account all products and services that are substitutable, leads to a market assessment in which all competitive forces are properly considered and therefore in which operators may, in fact, not enjoy a position of market dominance (in competition law) or significant market power (in regulation). For example, if at the retail level consumers can switch to 'free' messaging apps in response to an increase in price of SMS, then no operator can increase the price of SMS and therefore operators do not have significant market power. So too, in the world of internet platforms, it is important to define a multi-sided market in order to arrive at a proper assessment of the competition dynamics in that market.

There is obvious overlap between regulation of operators with significant market power and competition law enforcement. Competition law enforcement applies to all sectors and is a powerful tool for boosting productivity, innovation, competitiveness, and growth. Indeed, a recent report by the World Bank Group estimates that a proper enforcement of competition law has the potential to lift a significant amount of people out of poverty. One aspect that is perhaps less understood concerns the very fabric of the legal, policy and operational framework. If there is no special regulator for an industry, only the competition authority will be able to intervene. This is why issues that may arise in the IT sector, or in the internet provider sector are considered by the competition authority. This is why the cases against Microsoft in the 1990s were investigated by competition authorities. In the digital economy, this is why the existing cases against Google and Apple are pursued by competition authorities. Indeed, this is why cases in the pharmaceutical sector, or against chip manufacturers, supermarket or airlines, are carried out by competition authorities.

Therefore, competition principles need to be integrated between the different agencies that have the task to enforce them, in close cooperation between competition authorities and sectoral regulators. Because of the real risk of over-regulation, it is especially important to rely on competition law whenever possible and to regulate ex ante only when there is a clear case to do so. Because the digital economy is global, cross-border cooperation between competition authorities and regulators is necessary.

This only works if the legal and policy framework is in place; that is, if there is a competition authority in the country, and if the authority is properly set up and has the resources and expertise to operate. In this booklet, we review the situation in Asia and in Sub-Saharan Africa. Although in Asia there is a competition authority in all of the countries surveyed, bar one, the effectiveness of the authority varies greatly from country to country. In Sub-Saharan Africa, out of 50 countries surveyed, only 14 have a fully established competition authority. In all countries surveyed, there is regulation imposed on a sector: telecommunications (in some cases, telecommunications, media and broadcasting). Indeed, it is often a WTO requirement that countries implement a system of regulation of the telecommunications sector in order to gain access to international trade. There is no similar requirement to adopt a system of competition law. Not all telecommunications regulators apply regulation on operators with market power, after an assessment of market failures that require intervention.

In both Sub-Saharan Africa and in Asia, cross-border cooperation has improved in recent times. Common Market for Eastern and Southern Africa (COMESA) in Southern Africa is active as a supra-national competition authority in merger-control cases and is expanding its remit. The Association of Southern Asian Nations (ASEAN) in Southeast Asia is in the process of setting up its own frameworks. This is to be welcomed, although if the jurisdiction of supra-national bodies is not properly codified, instead of leading to a much-needed one-stop shop, it can lead to extra layers of bureaucracy and the risk of businesses facing multiple agencies, at the supra-national level and nationally. However, cooperation spreads knowledge and best practice and minimises the risks of diverging decisions and practices among agencies, between countries, making it easier for the market players to operate with legal certainty across borders.

Emanuela Lecchi, Head of Competition (Legal), GSMA

14 December 2016

Summary

Summary

This booklet has been produced in answer to questions posed by users of the Competition Policy Handbook[1], asking that the key concepts in the Handbook should be put into context in the realities that they face. A main principle that should apply in competition policy enforcement is that sectoral telecoms regulators should only regulate where competition law is not sufficient to deal with the issues identified, and then only in a proportionate, non-discriminatory manner. If the regulators follow this principle, then many issues that arise in the application of competition policy in the digital age become less pressing: operators in the sector should not then be over-regulated, and should face a more level playing field with their competitors, the internet players. Until then, telecommunications operators will continue to face a non-level playing field. It is sufficient to consider the number of countries surveyed in this booklet where competition laws are not properly functioning but where there is a system of regulation that applies to the telecommunications sector (sometimes to telecommunications, media and broadcasting)[2] to see the truth of this statement. Especially if the regulators should impose regulation without a proper understanding of the competitive forces that shape the economy, then the telecommunications operators will be subject to national regulation, different in every country, whereas their competitors in the digital economy will not. In the absence of generally applicable competition laws, their competitors in the digital economy may escape scrutiny altogether.

One of the main characteristics of the digital economy is its globalisation (which affects not just telecommunications markets). If the markets are global, or at least "widely transnational",[3] there is a need for a global, or at least a widely regional response, so that the above main principle should apply in a supra-national context too. Failure to grasp the supra-national aspects impairs the benefits of the digital economy when operators are potentially subject to a plethora of laws applied by different agencies, leading to risks to cross-border investment.

The main principle above, that regulators should only regulate when competition law cannot deal with the issues identified, can only apply if in the countries in question there is a properly functioning legal and policy framework that makes this possible. In particular, it can only apply if there is a competition law, and if the competition law is at least capable of addressing the issues. It can only apply if the regulators are sufficiently aware that their powers need to be exercised with caution, mindful of the risks of over-regulation, as more particularly discussed below. None of this is new: Already in 2006, the International Competition Network identified the need for a system of competition law and sector-specific regulation that would be transparent, effective and enforceable and, above all, coordinated. This is discussed in Figure 8, here.

By way of background, competition law and economics regulation overlap, and they each have specific characteristics, as follows.

1. GSMA Competition Policy in the Digital Age: A practical handbook, 2015, available at: http://www.gsma.com/competition-policy-handbook
2. In all countries considered there is a sectoral regulator
3. Maher M. Dubbah, *International and Comparative Competition Law,* Cambridge University Press, 2010, page 115

Figure 1: Competition law and sector-specific regulation

Competition Law	Sector-Specific Regulation
• Applies to all sectors of the economy • The starting point of investigation often is a complaint against a specific action • Leads to imposition of fines and tailored measures to address specific issues (deterrent effect) • Competition authorities have more wide-ranging powers to conduct investigations and to impose fines	• Applies to specific sectors (telecom) only • The starting point is often a predetermined list of markets • Leads to the adoption of regulation that should be reviewed regularly • Regulators have less wide-ranging powers of investigation and enforcement, limited to the sector

Following the review of the legal and policy framework in the Asian and Sub-Saharan African realities in this booklet, we conclude that the following five features are a precondition of 'best practice' in competition policy. When we refer to a 'properly functioning' agency, we mean an agency that is independent of government, properly staffed and resourced.

Figure 2: Five features of best practice in competition policy

1. A **properly functioning competition authority** and a **properly functioning regulator**, i.e., that are independent of government, properly staffed and resourced.
2. Economic regulation must address **market failures**, based on evidence from up-to-date market reviews. Regulators must be clear about the reasons for, and impact of, regulation in all cases.
3. Ideally, **competition law should be enforced by a competition authority**. If the regulator has **sectoral competition law powers**, the need for cooperation between agencies is greatest.
4. Both competition authority and regulator understand **the interplay** between their respective jurisdictions and **work together** to address the issues identified.
5. There is appropriate, **meaningful cooperation** between competition authorities and regulators at the supranational level too.

In the summaries in each of the Asia and Sub-Saharan Africa chapters, each of these features is analysed in the specific context of the realities on the ground. In a nutshell, as can be seen here, advanced societies in Asia tend to have adopted the five features above and tend to approach regulation cautiously, mindful of the potential for over-regulation (*Feature 2*). Some Asian countries such as Australia, South Korea and Singapore are at the forefront of the application of the competition rules to the digital economy, as compared to anywhere in the world (*Feature 1*). There seems to be a movement towards exclusive application of the competition rules by the sectoral regulators in some countries, following the example of Singapore (*Feature 3*). If transition and emerging digital societies are considering the adoption of such a system, then policymakers need to be extra-mindful of the need for cooperation between the competition authority and the regulator (*Feature 4*). Cooperation at the supra-national level could be improved across Asia (*Feature 5*). The creation of the ASEAN Economic Community in 2015 possibly heralds a more cohesive approach cross-border in those Asian countries that belong to ASEAN.

As can be seen here, of the 50 countries surveyed in Sub Saharan Africa, 14 have an established system of competition law, with competition authorities active on average for eight years in the countries where they operate (*Feature 1*). Resourcing of the competition authority can be an issue, although the position has improved in recent years. South Africa has both an established and active competition authority and an established solid regulator.

The countries that belong to the West African Economic and Monetary Union (WAEMU) have adopted a centralised system of application of the competition rules, with mixed results. All African countries considered have active regulators but the regulators do not always seek to impose regulation after a proper market analysis, leading to potential distortions in the competitive landscape (*Feature 2*). The difference between competition law and regulation appears to be blurred in a number of countries (*Feature 3*), and this can impair a proper understanding of the respective roles of the competition authority and the regulator, although in five countries the agencies themselves have entered into MoUs, to address concerns (*Feature 4*). Sub-Saharan Africa is at the forefront of supra-national cooperation in competition law enforcement (*Feature 5*), with the COMESA Competition Commission on its way to becoming an effective enforcer. Supra-national cooperation of this kind has the potential to lead to better outcomes for the economy as a whole, by ensuring that there is alignment of the decisions taken at the national level and that the system can, over time, evolve towards a one-stop shop for, e.g. merger control. The example of COMESA also puts into sharp focus the need for clarity when setting up supra-national enforcers of the competition rules.

In light of the results of the analysis, policymakers on the one hand and agencies that enforce the rules on the other hand should adopt the following recommendations.

Figure 3: Recommendations for policymakers and agencies

POLICYMAKERS — NATIONAL

- When assessing the need for change to a regime, consider the interplay between competition law and regulation. Can the legislative framework be clarified as to the respective roles? This is especially important for merger control.
- If there is no properly functioning competition authority, consider introducing it.
- When allocating resources, consider the wider impact that a competition authority can have on the economy. Ensure fair allocation between the regulator and competition authority.

POLICYMAKERS — SUPRA-NATIONAL

- Consider how existing supra-national bodies can be more effective in the way competition law and regulation is applied in cross-border cases.
- If setting up a cross-border competition authority, consider how it will operate in conjunction with the national agencies. What are the boundaries of the respective jurisdiction? How will the supra-national body carry out investigations? What enforcement tools are available?
- Consider the interplay between competition law and regulation at the supra-national level too.

REGULATORS AND COMPETITION AUTHORITIES — NATIONAL

- If the legal system is silent, consider informal MoUs to decide how to organise cooperation.
- Consider secondments of employees between agencies.
- Always assess whether an issue should be more properly addressed by competition law rather than regulation.
- Cooperate on market assessment for regulation.
- If there is no competition authority, the regulator must be even more vigilant against the risk of over-regulation.

REGULATORS AND COMPETITION AUTHORITIES — SUPRA-NATIONAL

- Recognise that existing supra-national organisations have the potential to extend beyond their current field of action of capacity building, best practice and know-how, for cooperation and consistent cross-border decisions.
- Consider how best to use resources across borders to avoid duplication and to increase efficiency. Action that would lead to quicker adoption of decisions by the agencies, and decisions that are aligned in the different countries would greatly help the business community.

Introduction

Telecommunications connectivity and pricing of telecommunications services are undoubtedly important for the development of countries. However, the digital economy requires an approach that takes into account the different facets of 'connecting people', such as availability of devices and locally relevant content. The existence of a regulatory regime that encourages change and supports innovation underpins much of the effort to bring about digitisation, especially in developing countries. Reliance on competition law rather than regulation (when appropriate) would help to create the conditions for continued expansion of networks and affordable services.

The majority of examples in the Competition Policy Handbook are from the European context. Taking into account the feedback received, in this case study booklet we seek to expand on the conclusions in the handbook; provide worked examples in flowchart format about how significant market power (SMP) regulation is carried out (Appendix 2); and clarify the relationship between spectrum assignment and competition policy (Appendix 1). We put the spotlight on Asia and Sub-Saharan Africa. The two regions are different and within each region there are stark variations amongst the degree of developments of digital societies. Common characteristics can be found in both, however. One such is that fixed network infrastructure tends to be underdeveloped, on average, across both regions: mobile technology is the main access technology.

As a corollary, both in Asia and in Sub-Saharan Africa, regulatory intervention is often directed at mobile operators.[4] This is a key difference with the European Union, where most regulation affects fixed operators (although even in the EU, a number of legal obligations are imposed on the mobile industry without a market assessment (such as roaming and net neutrality rules).

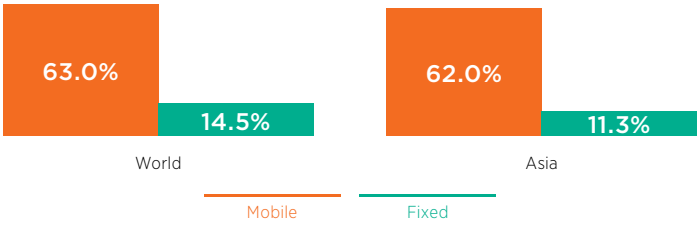
In terms of fixed-line penetration:

Across Sub-Saharan Africa, fixed-line penetration stood at only 0.3% in 2012, the lowest of any region. Where fixed-line networks do exist, they tend also to be relatively expensive.[5]

Across Asia, fixed-line penetration stood at 11.3% in 2015, as shown in Figure 6.

4. This is Interesting. The main justification for imposing regulation on the telecoms industry is that, on liberalisation, the main incumbent fixed operator would receive the telecoms network that had been usually built with expenditure of public money. The fixed operator was effectively 'gifted' a telecoms network, and therefore should be subject to extra regulation. In the context of countries where fixed penetration is low, this justification does not hold true – yet, the mobile operators are subject to sector-specific regulation similar to that imposed on fixed operators, despite the investments made by them in the mobile networks.
5. GSMA Mobile Economy Report Sub-Saharan Africa, 2014, available at: http://www.gsma.com/mobileeconomy/archive/GSMA_ME_SubSaharanAfrica_2014.pdf, page 29

Figure 4: Mobile vs fixed-line penetration (world and Asia) 2015[6] (NB: in Sub-Saharan Africa, fixed-line penetration was only 0.3% in 2012)



Source: GSMA Intelligence, ITU

Both Asia and Sub-Saharan Africa include countries that are among the poorest in the world: lack of connectivity and a perceived relatively high price of telecommunications services are often considered a barrier to their development generally.

However, lack of connectivity needs to be understood against the background of the weak business case for rural network roll-out: low ARPU levels make it hard to justify the costs of deployment and maintenance in rural areas. Although there are about 4 billion people around the world who still do not have access to the internet,[7] mobile operators already provide access to the internet at a rate of nearly one million new customers every day, with 90% of the growth coming from developing markets.

> We currently live in a world in which more Africans have access to a mobile phone than to any other utility or infrastructure service.[8]

Furthermore, it is an interesting fact that more than 2 billion people in the world live within the footprint of broadband-capable mobile networks but have yet to access the internet. Unlocking demand among this population group involves a different set of challenges — ensuring that mobile devices and services are not taxed as luxury goods, helping people gain the digital skills needed to understand how to use the internet and facilitating the development of online content and services that are localised and relevant. The GSMA is actively working with operators on initiatives across affordability, digital literacy and online content to help empower individuals to get online. Indeed, in February 2016 the mobile industry became the first sector to commit to the 17 United Nations Sustainable Development Goals.[9] Whether it is ensuring healthy lives and promoting

6. GSMA Advancing Digital Societies in Asia, 2016, available at: http://www.gsma.com/newsroom/press-release/new-gsma-study-tracks-digital-society-progress-asia/, page 14
7. http://www.gsma.com/newsroom/blog/connecting-the-unconnected-unlocking-human-potential-through-the-power-of-the-mobile-internet/
8. World Bank, ITU, *Info*Dev, IFC, *Telecommunications Regulatory Toolkit*, 10th Anniversary edition, 2010: https://openknowledge.worldbank.org/bitstream/handle/10986/13277/74543.pdf?sequence=1, pp 31 and 32. This is a live resource, updated regularly. It draws extensively, but not exclusively, on the seven modules of the ICT Regulation Toolkit, available at www.ictregulationtoolkit.org.
9. These are: (1) no poverty; (2) zero hunger; (3) good health and well-being; (4) quality education; (5) gender equality; (6) clean water and sanitation; (7) affordable and clean energy; (8) decent work and economic growth; (9) industry, innovation and infrastructure; (10) reduced inequalities; (11) sustainable cities and communities; (12) responsible consumption and production; (13) climate action; (14) life below water; (15) life on land; (16) peace, justice and strong institutions; (17) partnerships for the goals.

well-being for all; achieving gender equality and empowering women and girls; making cities and settlements inclusive, safe, resilient and sustainable; or helping to combat climate change; mobile networks are transforming the world and are a revolutionary force for positive change.[10] Achieving the goal of reducing barriers to take up can only be done by a joint effort of the mobile industry, governments and regulators, and people on the ground. Appropriate, non-discriminatory and proportionate regulation of the mobile industry and appropriate scrutiny of all players in the digital economy under competition law are necessary for the achievement of these goals.

The system of regulation and competition law has an important role to play. As the Telecommunications Regulatory Toolkit[11] recognises,

"Regulation is not a panacea. While it may address market power concerns, regulation comes with costs. Where it is possible, effective competition will generally deliver better outcomes than regulation.

Where regulation is necessary, regulatory forbearance is the key to good outcomes. Regulatory forbearance is about focusing regulation to where it is needed, and withdrawing regulation in those parts of the market where it is no longer necessary. In other words, the concept of regulatory forbearance rests on the goal of a gradual removal of ex ante regulation and an accompanying increase in the use of general ex post competition regulation."

We endorse these statements. Government and regulatory intervention, even when well-intended, can have a distortionary effect.[12] Distortive intervention includes:

- arbitrary and opaque rules that do not allow for transparency;
- rules that discriminate in favour of home-grown companies, or state-owned companies;
- rules that effectively discriminate against one sector;
- application of blanket provisions imposing excessive and unrealistic goals for quality of service, leading to uniform provision of services and extra costs;
- imposition of rules restricting freedom to innovate in the provision of service, irrespective of the market power of the addressees (e.g., rules against bundling; or price controls imposed on companies that do not have market power, in the absence of a market assessment properly carried out).

10. See *2016 Mobile Industry Impact Report: Sustainable Development Goals*, September 2016, available at: http://www.gsma.com/newsroom/press-release/gsma-publishes-report-detailing-mobile-industrys-impact-achieving-sdgs/
11. *Telecommunications Regulatory Toolkit*, 10th Anniversary edition, quoted, pp 31 and 32.
12. World Bank Group, *Breaking down Barriers – unlocking Africa's potential through Vigorous Competition Policy* (WBG African Competition Policy Report), available at: http://documents.worldbank.org/curated/en/243171467232051787/pdf/106717-REVISED-PUBLIC-Africa-Competition-Report-FINAL.pdf , page 108

Competition policy enforcement should involve proper consideration of the potential that competition law has to deal with issues that arise in the context of market players with market power. This can only happen if the legal, policy and operational frameworks that make this possible are in place. Although the situation has improved recently, unfortunately in a number of countries across Asia and Sub-Saharan Africa the frameworks are not properly operational yet.

Policymakers have the power to ensure that the sectoral focus of regulation and competition law is lifted, and competition law becomes generally applicable. Attributing resources to the application of competition law across all sectors of the economy has been demonstrated to have profound effects for welfare gains, with the lowest income population benefiting the most. Figure 5 provides an overview of studies that show the positive effects of removing policy and regulatory obstacles to competition.[13] If the decision is taken to attribute resources to the sectoral regulators in preference to the competition authority, these welfare effects cannot materialise across the economy.

Figure 05: Effect of competition on welfare for the economy as a whole

Country	Study	Reform / Impact of...	Effect
Welfare effects of limited competition			
Mexico	Urzia (2013)	High market power for seven markets, including: food, beverages and medicines	Welfare loss 19.8% higher for lowest income decile than for highest in urban areas 22.7% higher in rural areas
Australia	Creedy and Dixon (1998)	Monopoly power for 14 commodity groups	Welfare loss 45% higher for lower income decile than for highest
Effects of competition law enforcement: elimination of anticompetitive business practices			
International	Connor (2014)	Cartel (sample of 1,530 cartel episodes across sectors and countries)	Median average overcharge of 23%; mean of 49%. 60% of cartel episodes with overcharges of 20% or higher have a mean overcharge of 79.7%
South Africa	Mncube (2013)	Cartel (wheat flour)	Overcharge to independent bakeries of 7-42%

Source: T Bengazo, S. Nyman, quoted (footnote 13)

13. T. Bengazo and S. Nyman, *How Competition affects the Distribution of Welfare,* World Bank Group, at: http://documents.worldbank.org/curated/en/662481468180536669/pdf/104736-REPF-Competition-and-Poverty.pdf

Figure 5 (continued): Effect of competition on welfare for the economy as a whole

Country	Study	Reform / Impact of...	Effect
Effect of removing policy and regulatory obstacles to competition			
Kenya	Argent and Begazo (2015)	Reducing barriers to competition leading to a 20% fall in the price of I) maize and ii) sugar	I) Effect equivalent to 1.2% increase in real income with greater gains for the poor, 1.8% fall in poverty ; ii) Welfare gains for the poorest income decile 4.4 times higher than for the highest 1.5% fall in poverty
Dominican Republic	Busso and Galiani (2015)	Entry of new grocery stores into a conditional cash transfer program	1% increase in number of stores operating in the market reduces prices by 0.06% without affecting product or service quality
United States	Hausman and Leibtag (2007)	Entry and expansion of retail supercenters	Welfare gains from direct increase of variety is about 20% of average food expenditure, indirect price effect of 5%. Lower income households benefit by 50% more than average effect
Mexico	Atkin, Faber and Gonzalez-Navarro (2015)	Foreign supermarket entry	Significant welfare gains for average household (6.2% of household income), driven by direct consumer gains from new foreign stores with cheaper prices, richest income groups gain about 50% more than the poorest

Source: T Bengazo, S. Nyman, quoted (footnote 13)

Policymakers can also ensure that regulatory intervention adheres to common guiding principles, so as to minimise the risks of distortionary effects. Even in the absence of changes to the legal system, regulators themselves can already apply regulation in a way that minimises distortions, by considering the effects that the remedies they seek to impose have on competition.

If it makes sense for competition law and regulation to be applicable in a cross-border, supra-national context, then it makes sense to consider the role of supra-national organisations. Perhaps surprisingly, the WTO does not have a framework for the application of competition law. Perhaps not surprisingly, however, given the focus on sectoral regulation in most countries, the WTO has a so-called *Reference Paper* that obliges the signatories to introduce regulation in the telecommunications sector, narrowly intended. On the other hand, both in Asia and in Sub-Saharan Africa, there are a number of supra-national organisations with at least some competition law remit. This is a welcome development, but it creates its own challenges in terms of drawing the jurisdictional boundaries between the various authorities.

Overall, the conclusions already reached in the Competition Policy Handbook are confirmed in this case study booklet. Telecoms operators are subject to a lot more scrutiny

and more regulation than their competitors in the digital economy. Indeed, since publication of the Competition Policy Handbook, the trend towards increased regulation of the telecommunications sector continues unabated. Regulation is often imposed without regard to whether the operators in question have any market power. The recent renewed attempt to impose *ex ante* regulation in the name of net neutrality is a worrying trend. The imposition of regulation indiscriminately, without a proper analysis of the marketplace in which the entities to be regulated operate can lead to over-regulation (Type I errors). Regulators and policymakers need to be aware that inflexible net neutrality regulation has important implications for the way in which mobile operators compete now, will be able to compete in the future and, crucially, will be able to deliver the next technological developments, in 5G.[14]

What applies to telcos should also apply to the internet operators of the digital economy, in the markets in which they compete. The all-important question of taxation of the internet players is outside the scope of this booklet. As a general observation, it would seem only fair that internet players should pay taxes in accordance with the revenue that they earn in a particular jurisdiction. Achieving this aim would be difficult and possibly would require a great degree of supra-national cooperation.

Leaving aside the taxation issues, in terms of strict competition policy, and notwithstanding various calls for subjecting internet players to extra regulation, any obligations should only be imposed on them where necessary, after a proper assessment. The same principles must apply to the telecoms operators: regulators should refrain from regulating where competition law is sufficient to deal with the issues. This is a clear principle in SMP regulation, the third question in the so-called Three Criteria Test in the European regulatory framework, but too often this is not properly considered by regulators.

This is not to say that competition policy is perfect as is. The issues identified in the Competition Policy Handbook with regard to competition policy enforcement need to be addressed. The GSMA has published two further studies aimed at lawmakers, seeking to identify the best way regulation could be adapted to reflect the realities of the digital economy.

In the first study,[15] the GSMA concluded that policymaking must reflect the basic characteristics of the digital economy. Policymaking should seek to

- preserve dynamic efficiency and encourage innovation;
- take into account the presence of strong economies of scale and scope; and
- start from an understanding that consumers access modular services, based on technical innovation.

Regulation should therefore be based on the functionality of the services (rather than based on the infrastructure means of delivery, or the technology used), should be flexible and should take into account the realities on the ground.

The second study commissioned explores how policymakers could improve competition law and regulation in practice, to cope with the challenges posed by the digital age.[16] In it, the following key recommendations are made:

14. P. Alexiadis. *EU Net Neutrality policy and the mobile sector: The need for competition law standards,* Concurrences, September 2016, https://www.concurrences.com/review/issues/no-3-2016/articles/eu-net-neutrality-policy-and-the-mobile-sector-the-need-for-competition-law-80707
15. GSMA, NERA Economic Consulting, *A new regulatory framework for the digital ecosystem,* available at: http://www.gsma.com/publicpolicy/wp-content/uploads/2016/02/NERA_Full_Report.pdf
16. GSMA, CEG, *Resetting competition policy frameworks for the digital ecosystem,* available for download at http://www.gsma.com/publicpolicy/resetting-competition-policy-frameworks-for-the-digital-ecosystem.

Figure 6: Key recommendations on resetting competition policy for the digital age from the GSMA, CEG report quoted in footnote 16

Market definition and market power

1. Adjust existing tools to account for specific features of digital markets
2. Focus on actual substitution patterns
3. Use alternative tools to capture the main determinants of consumers' switching behaviour
4. Ensure market definition is sufficiently forward-looking, and revise and adapt policies to fully capture changes in the relevant market
5. Focus on alleged anticompetitive conduct and its likely effects rather than inferring market power from market structure
6. Assess the extent to which big data confers market power
7. Maintain a high threshold for intervention based on collective dominance

The total welfare standard

8. Adopt a total welfare standard to support long-term productivity growth and higher living standards
9. Focus on dynamic effects when assessing mergers and competition in digital markets
10. Use better tools to assess efficiencies

Ex ante and *ex post* regulation

11. Review the thresholds for ex ante regulation to ensure balance between regulation and investment risks
12. Focus ex ante regulation on enduring market power
13. Ensure regulation is streamlined and consistent with competition law

Institutional arrangements

14. Adopt interim measures to accelerate ex post enforcement and mitigate potential harm from anticompetitive conduct
15. Reassess institutional arrangements

Competition Policy in the Digital Economy

The digital economy requires adapted competition law enforcement, as seen in the Competition Policy Handbook. For the regulatory landscape to operate in a way that is conducive to embracing the digital economy, there needs to be a properly functioning competition authority and a properly functioning regulator. The two need to be aware of each other's powers and to cooperate. The regulator must understand the reasons why it regulates and the impact of regulation. Only when competition law is insufficient to deal with the issues identified should regulation be imposed.

The following table outlines the elements of effective implementation of competition policy (competition law and regulation). [17]

Figure 7: Elements of effective implementation of competition law

A. Legal and policy framework	B. Operational framework	C. Competition policy enforcement	D. Integration of competition principles
Competition policy (competition law and economics regulation)	Structure of the authority and regulator	Regulatory framework: competition guidelines and regulations	Collaboration between agencies and ministries within the government
Competition law	Staffing and financial resources for the authority	Case handling: analysis of anticompetitive practices and merger review	Opinions on relevant laws and regulations that are likely to harm competition
Economics regulation	Staffing and financial resources for the regulator	Market reviews: underpin SMP regulation and other interventions (including spectrum assignment)	Consider the interplay with competition law– Can this deal with the issues? If so, do not regulate.
Law that creates the competition authority and the regulator	Selection of board members and/or head of the agency	Implementation of the agency's powers	Market studies in sectors with competition concerns
Other relevant laws with competition mandates (such as public procurement)	Strategic planning	Administrative efficiency, procedural fairness and due process in case handling	Awareness raising and capacity building for the private sector, civil society, journalists, academia, public sector

17. Adapted from WBG African Competition Policy Report, quoted, Figure B-1. The changes have been made to bring into focus the relationship between the competition authority and the sectoral regulators. This table will also be published in the forthcoming WBG document, *Market and Competition Policy Assessment Toolkit*.

Taking these categories into account, overall the analysis in the Competition Policy Handbook proceeds from the assumption that, in any particular country:

- the legal and policy framework (A) and
- the operational framework (B)

are in place. Therefore, the assumption is that in the particular country there is a legal framework that comprises competition law and regulation (A), and that there is a sectoral regulator with a mandate to apply SMP regulation and a proper functioning competition authority (B).

Given A and B, the analysis in the Competition Policy Handbook focuses on the complexities of competition policy enforcement (C), considering specifically the enforcement of the rules on abuse of a dominant position and merger control, alongside the regulatory enforcement of obligations based on the analysis of operators with significant market power. It is not the intention here to give an in-depth summary of the Competition Policy Handbook. A high-level summary on page 28.[18] It is crucial in this system that regulators understand the need for a proper assessment in order to consider if competition law is sufficient to deal with the issues identified (test 3 in the so-called Three Criteria Test).

In this booklet, the focus will be on whether in the countries surveyed the legal and policy framework is in place (A); whether the operational framework is effective (B) and also the specifics of collaboration between agencies, at the national and at the supra-national levels (D).

- The features and recommendations identified in this booklet echo earlier findings. For example, already in 2006, the International Competition Network had issued a document whose main findings are summarised in Figure 8.[19] The development of the digital economy makes it all the more urgent to understand the issues and act accordingly.

18. The Competition Policy Handbook is available at http://www.gsma.com/publicpolicy/competition-policy-in-the-digital-age and can be accessed in English and in French. It is fully searchable and, in this booklet, care has been taken to cross refer to the relevant concepts in the Handbook when relevant.
19. ICN working group on Telecommunications Services; *The role for Competition in the Telecommunications Sector*, 2006. Available at: http://www.internationalcompetitionnetwork.org/uploads/library/doc384.pdf

Figure 8: Role of competition in the telecommunications sector, ICN (2006), quoted in footnote 19

Competition should be promoted by:

- ensuring that competition law applies to the telecommunications sector and that competition law provides effective instruments, including sanctions and remedies, for deterring anticompetitive conduct;
- ensuring that the powers and duties of the competition authority and sector-specific regulator are transparent;
- promoting co-ordination between the regulator and the competition authority to avoid conflicts involving any overlapping jurisdiction;
- ensuring that operators with market power or SMP do not have same licence obligations as the smaller operators (such as account separation, cost-orientation, non-discrimination, no cross-subsidisation, access/interconnection requirements);
- the regulatory frameworks should be clear on the obligations imposed on operators with market power or SMP. The conditions for the application of these obligations should also be clearly stated to ensure predictability, transparency and proportionality.

Enforcement – There is a need to:

- protect competition in the telecommunications sector by taking appropriate enforcement action against anticompetitive conduct;
- apply sound competition analysis (including relevant market definition, market power/dominance) and remedies;
- take into account technological changes that are occurring in the telecommunications industry and that may impact competitive analysis;
- build effective working relationships with the regulatory agencies and coordinate efforts in the review of particular matters, including with respect to emerging services based on new technology and innovation.

Transparency and effectiveness – There is a need for:

- expeditious decision making, as far as possible;
- removal of unjustified regulatory restrictions on competition in the provision of communications networks and services and in the usage of spectrum. With respect to entry, agencies should advocate that the regulatory framework set by jurisdictions for the provision of such networks and services is consistent with non-discrimination principles;
- regulating only in such a way as to create or maintain appropriate market incentives;
- forbearance from unnecessary regulation as soon as practicable, taking into account the availability of existing competition law to protect the interests of consumers, and the ability of existing competition laws effectively to remedy anticompetitive behaviour;
- periodic review of regulation to ensure that regulation continues to be appropriate and is not adversely affecting competition;
- technologically neutral regulation that does not favour one technology over another, create entry barriers for new technologies, or deter convergence of telecommunications services;
- when there is a need for social regulation, such as universal service, implement it in a competition-neutral manner.

In this section, we will refer back, first to the characteristics of the digital economy that make it important to reset the way that competition policy is applied in practice. Second, we will recap on the interplay and differences between competition law and regulation.

The way competition law applies to the economy as a whole, rather than to a sector narrowly intended, makes competition law ideally suited to consider issues related to abuse of market power and substantial lessening of competition in the digital economy. The pre-eminence of competition law is recognised in most systems of SMP regulation, and codified in the third question of the EU Three Criteria Test, which obliges a regulator to forebear from regulating if competition law is sufficient to deal with the issues identified. Where there is no competition law, then exhortations to rely on it instead of regulation cannot be put in practice. Even when competition law exists, sometimes there is no competition authority, or the competition authority is newly established and not yet experienced enough, or is not properly resourced. Regulators in almost all countries have had a head start, but their jurisdiction is too limited to deal with the issues that arise in the digital economy: cooperation between regulators and competition authorities secures a more level playing field between all actors in the digital economy.

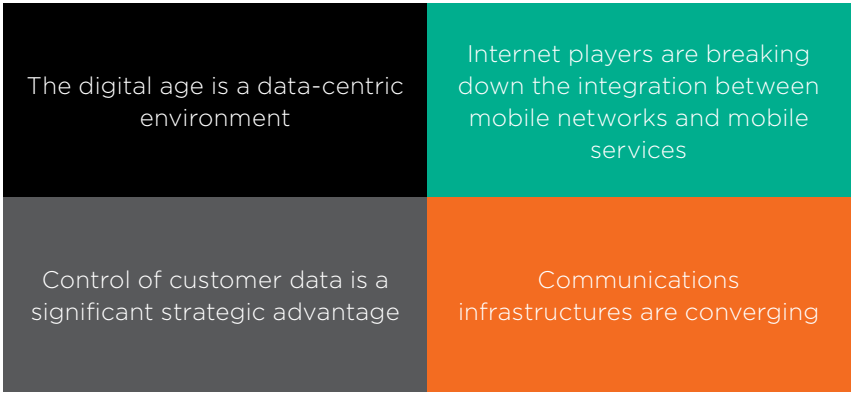
The characteristics of the digital economy

Most governments want to bring about a digital revolution — to empower their citizens with new tools and to reap the benefits promised by the digital economy. In order to do so, connectivity is the starting point. Connectivity underpins the digital economy, but without access to locally relevant content and in the presence of citizens who are not digitally literate, or cannot afford the appropriate devices, connectivity alone cannot deliver the benefits. The digital economy will only dawn (and thrive) in the presence of a regulatory system that embraces and supports change. *Connectivity, content*, empowered *citizens* and a regulatory system that supports *change* and innovation are often referred to as the "Four Cs" underpinning the digital economy. These are especially relevant in developing economies.

The combination of mobile and fixed networks with wireless Wi-Fi hotspots has enabled increased connectivity in a number of countries. The development of these technologies and the advent of the smartphone and the tablet have fostered the availability of internet services often referred to as 'over-the-top' services. This increases the availability of relevant content, provided that citizens are digitally literate and have access to smartphones and tablets. Indeed, the 'freemium' business model promises users the illusion of free basic content, where they only pay for updates and premium services.

The internet players (or OTTs) require their own source of revenue, of course, often obtained through monetisation of personal data. In the Competition Policy Handbook, four key trends were identified that underline the changes brought about by the digital economy.

Figure 9: Trends that underline changes brought about by the digital age



These trends have important implications for privacy and data protection, which are only now becoming apparent and which were not considered in the Competition Policy Handbook (nor are they considered in detail in this booklet). In a nutshell, data have become an important parameter of competition between market players, giving rise to competition policy concerns that exist alongside the traditional concerns that led to the introduction of data protection legislation. To interfere in the way that the new players monetise data would mean interfering in the business models of the new players, at a time when these models are only imperfectly known. To impose obligations such as allowing third parties access to (big) data as a result of an investigation could risk infringing existing data protection legislation, depending on the exact definition of personal data.

Whatever the conclusion reached about the appropriateness of imposing regulation on the OTTs,[20] the same reasoning should apply to the mobile operators, allowing them to compete on equal terms. This is because at present telecommunications operators: (i) may not be in a position to cross-subsidise services to consumers by charging other infrastructure users (due to net neutrality regulation and in some cases due to licence obligations) and (ii) may be constrained in their ability to monetise data in the same way as OTTs (often due to telecom-specific data protection and privacy requirements).

At the same time, OTT platforms that adopt a 'freemium' model are a clear alternative to voice and messaging services by the telecommunications operators and impose an obvious constraint on the ability of telecommunications operators to increase prices for their services to consumers. The market power held by incumbent operators as a result of their control of network infrastructure is correspondingly reduced, but the regulatory regime is slow to catch up.

20. The GSMA believes that the answer is not necessarily to extend regulation to the OTTs. There is an important issue concerning taxation of OTTs, which is outside competition policy. In competition policy, the system adopted should provide for flexibility for all services which are functionally equivalent. http://www.ft.com/cms/s/0/18f7c4d0-6215-11e6-8310-ecf0bddad227.html?ftcamp=engage/email/emailthis_link/ft_articles_share/share_link_article_email/editorial#axzz4I2xxFJE7

Competition and regulation

Overview

Faced with a competitive environment in which consumer choice is already based, or is prospectively based (in the near future) on technical innovation (i.e., on the availability of (smartphones, apps and operating systems), the traditional infrastructure-based system of regulation is fast becoming obsolete, yet endures.

Indeed, quite apart from the areas of regulation that affect the telecoms sector directly and specifically, in-country regulation generally applicable can in some cases have a disproportionate effect on sectors that need high levels of investment, such as the telecoms sector. Rules on foreign direct investment are an example — these arguably limit the potential for restructuring competition and for technology transfer.[21] Rules on foreign direct investment are "perceived to be less favourable in Africa than in other regions".[22]

Sectoral regulation of telecoms operators often takes the form of obligations in licences, permissions, concessions and similar legal instruments. The GSMA advocates for simple technology-neutral obligations and for intervention to be based on the existence of market power. A transparent, predictable and coherent approach to renewal of licences (in particular for the instruments that grant spectrum use) enables operators to make rational, long-term investment decisions. In reviewing the practice of countries in Asia and in Sub-Saharan Africa, it has become apparent that the lack of a standard approach to the renewal process can create significant uncertainty for mobile operators and their customers.

Figure 10: Best Practice in Sectoral Regulation [23]

Communications Licence (Concession, permission, authorisation)	**Spectrum Permission** (Licence, authorisation, concession)
A single, simple set of rules for commercial operation of communications networks and services Without service or technology distinctions Communications providers determine the level and the boundary of their operations on a commercial basis Intervention should be based on market power New licences should be granted for a minimum of 15 to 20 years. Terms for renewal must be clearly identified when new licences are issued, and government and regulators should work on the presumption of licence renewal for existing licence holders.	Simple description of the spectrum that is being made available to a provider or which is unlicensed Without service or technology distinctions With terms which deal only with spectrum-related issues, e.g., period of allocation, payment terms, management of interference New permissions should be granted for a minimum of 15 to 20 years. Terms for renewal must be clearly identified when new licences are issued and government and regulators should work on the presumption of licence renewal for existing licence holders.

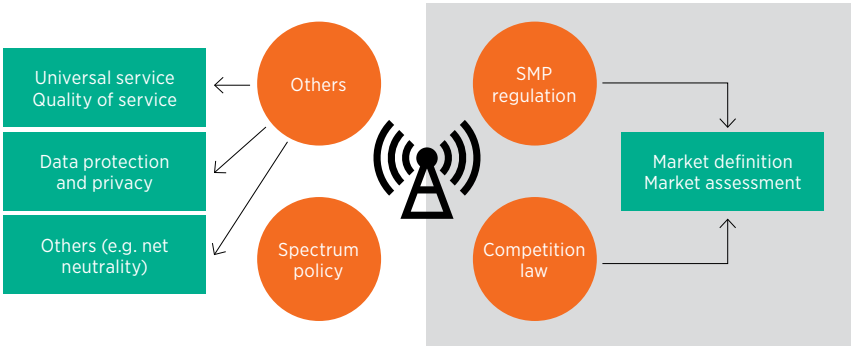
21. In the WBG African Competition Policy Report, quoted
22. WBG African Competition Policy, quoted, pages 4-5.
23. Adapted from GSMA, *Capitalising on ASEAN's Mobile Moment: Effective Mobile Policy and Regulation for the ASEAN economic community*, page 11, at: http://www.gsma.com/aboutus/wp-content/uploads/2013/08/Capitalizing_on_ASEAN%E2%80%99s_Mobile_Moment_24ppWEB.pdf

Telecommunications licences of operators across Sub-Saharan Africa and Asia include a number of obligations that arguably should be based on an assessment of the market position of the operators but often are imposed irrespective of the market power of the licensees. These obligations include interconnection, separate accounting, the prohibition of cross-subsidisation among different services, and prior approval of pricing and service terms. To impose obligations such as these on all players, irrespective of their position in the market, risks that smaller operators in particular find it difficult to challenge the incumbent and scale up.

Four areas where regulation affects mobile operators

In Figure 11, the orange shapes represent four main areas of intervention that apply to the mobile sector.

Figure 11: Different areas of regulation that are applicable to the mobile sector



Of those orange shapes, the two inside the grey area are the focus of the Competition Policy Handbook, and include competition law and regulation of operators with significant market power (SMP). In reviewing the position in Sub-Saharan Africa and in Asia, it appears that only some countries have a formalised system of SMP regulation, which in Asia is often confusingly named as the *ex ante* regulation of 'dominant' operators. In countries where there is no proper understanding of the difference between competition law and SMP regulation, there is a real risk of over-regulation.

The other two areas of regulation are outside competition policy and are broadly grouped under 'spectrum policy' and a general 'others' category. For ease of reference, under this 'others' category we have included areas of regulation often considered under the umbrella of consumer protection, such as:

- universal service obligations and quality of service obligations. These are often imposed on the incumbent or on the operator that happens to have infrastructure in a certain area. Although theoretically these obligations could be imposed on an enterprise with market power, in practice, market definition and market analysis are not pre-requisites for imposing these obligations;
- data protection and privacy rules, as seen above, which usually apply in a more stringent way against the telecoms operators;
- number portability;
- other more or less ad hoc regulatory instruments also aimed at the telecoms operators, irrespective of any market definition or market analysis. Important among these is the area of taxation and tax administration. The taxation of spectrum and spectrum holders is a very difficult issue for the mobile industry and is considered in detail in other GSMA documents.[24]

The two categories of regulation, namely 'others' and 'spectrum' should arguably be approached with more care than at present, not just in Africa and Asia. Specifically on spectrum, the need for competitive mechanisms for spectrum assignment is considered in Appendix 1. Before seeking to introduce a new entrant mobile network operator, governments and regulators must carry out a market assessment, to avoid the situation where too many operators are licensed, then they cannot compete and must exit the market, only for the government and regulator to start the same process all over again (see the examples in Figure 33, the case of Indonesia; and Figure 52, the case of Côte d'Ivoire).

If some regulation is applied in the name of consumer protection, there should be an understanding of what falls under consumer protection and why. Certain categories of consumers may be vulnerable, and regulation must be imposed to protect them, but there should be transparency on which categories of consumers need protection, and why. Perhaps consumers need protection against onerous terms and conditions, but surely if they do, that must apply not just to the telecoms operators, but to all industries. How many consumers even read the terms and conditions provided by the internet service providers? If they did read them, what could they do if they did not agree? If regulators impose extra measures on some players only, in the name of consumer protection, without a proper assessment of the market and without an understanding of the aims that the measures should achieve, the position can quickly become untenable. This is illustrated in Figure 12, with reference to the potential unintended consequences of retail regulation.

24. See for example: *Digital inclusion and the Role of Mobile in Nigeria*, at: http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2015/10/GSMA_Nigeria-Report_WEB.pdf

Figure 12: Micromanaging by regulators (especially at retail level) interferes with the competitive process

Consider a fictional country where quality of service is managed by the regulator by way of detailed KPIs on each mobile operator and also retail price tariffs. In this country, every consumer receives the exact same service, at the same price and the ability of operators to innovate is so limited as to be non-existing.

This extreme example shows how quality of service (QoS) regulation may lead to:

i. operators having less incentive to invest in network improvement (as these cannot be recouped through a competitive advantage): as a result, the total amount of network investment might be lower than under full competition on QoS;

ii. a sub-optimal allocation and use of resources if the choice of QoS KPIs (rather than the consumers) decides who should benefit from innovation (certain type of users, certain locations, some type of content);

iii. possibly, a lower common denominator, with a QoS for all or some below what could be refined with full competition.

This illustrates why regulators should apply a market analysis approach to regulation in areas where, usually, such an approach is not carried out and also refrain from regulating when competition law is sufficient to deal with the issues identified.

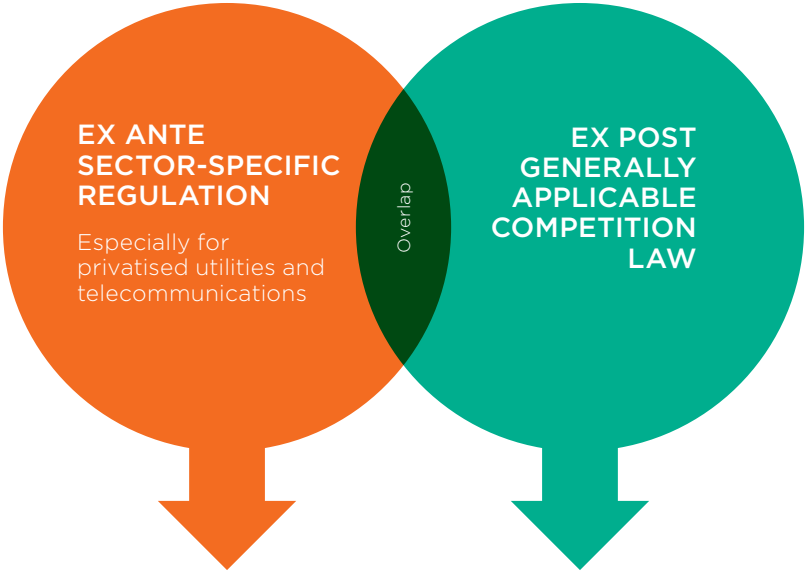
Competition law and SMP regulation

The other two categories, competition law and SMP regulation, share the aim to promote consumer welfare, enhance efficiency and ensure an effective competitive process. The goal of competition law and SMP regulation is therefore to protect the competitive process, for the benefit of consumers. Through the application of these rules, consumers should have access to a number of services that represent value for money. If that is not the case, then the assessment of the market needs to be carried out again, and proper remedies imposed (in the case of SMP regulation) or fines levied and commitments exacted (in the case of competition law).

Whereas the need for a proper market assessment is second nature to a competition authority, this is not the case in SMP regulation, resulting in market analysis and market assessment by the regulators that are not in all cases fit for purpose.

There is an overlap between the competition law rules that deal with abuse of a dominant positon and merger control on the one hand, and regulation imposed on telcos with significant market power. This is illustrated in Figure 13:

Figure 13: The overlap between abuse of a dominant position and competition law



Regulatory Frameworks	Competition Law Frameworks
Global ITU (for spectrum), WTO	**Regional** (sometimes) In **Africa**: COMESA, WAEMU
Regional In **Asia**: APT, APEC, ASEAN In **Africa**: CEMAC, COMESA, EAC, ECOWAS, SACU, SADC, WAEMU	**National** In some countries (e.g. Hong Kong), the regulator has concurrent powers with the competition authority in competition law. Even when that is not the case, cooperation between the regulator and competition authority is necessary
National In some countries (e.g., Malaysia, Nigeria), the regulator applies competition law exclusively to the telecoms sector	

Regulation only applies to specific sectors; competition law applies to all sectors. It is often said that regulation applies *ex ante* (before the event) and competition law applies *ex post* (after the event). This is a useful way to think about the respective roles of a regulator and a competition authority but, as explained in the Competition Policy Handbook,[25] can be misleading.

Merger control, usually applied by the competition authorities, is applied *ex ante*, prior to the merger taking place (the question is: 'Will this merger, if allowed to proceed, lead to a substantive lessening of competition?').

Once the obligations are imposed on an operator, by way of a licence obligation or other instruments, there needs to be a mechanism of enforcement. Enforcement of SMP regulation happen ex post, by definition, when the rules imposed by regulation have not been followed.

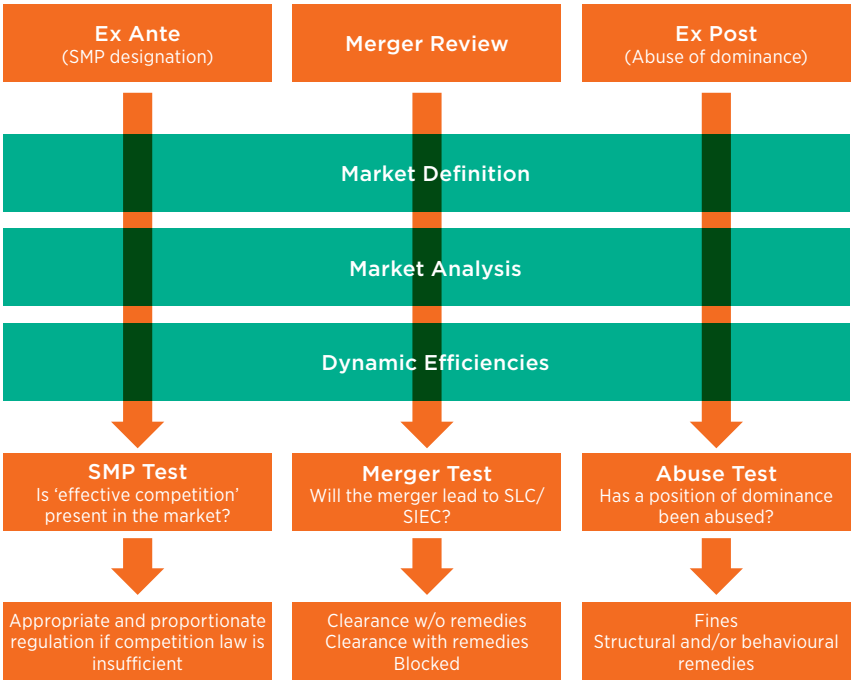
Figure 1: (reproduced again below) provides a high-level overview of differences.

Competition Law	Sector-Specific Regulation
• Applies to all sectors of the economy • The starting point of investigation often is a complaint against a specific action • Leads to imposition of fines and tailored measures to address specific issues (deterrent effect) • Competition authorities have more wide-ranging powers to conduct investigations and to impose fines	• Applies to specific sectors (telecom) only • The starting point is often a predetermined list of markets • Leads to the adoption of regulation that should be reviewed regularly • Regulators have less wide-ranging powers of investigation and enforcement, limited to the sector

The tools for market definition and market assessment in competition law and in SMP regulation are the same but the approach is different. This is explained in detail in the Competition Policy Handbook. In a nutshell, the following table illustrates in a diagrammatic form that in abuse of dominance and in merger control, and in SMP regulation, there needs to be a market definition and market assessment, but the final results are different for the two. Please consider the Competition Policy Handbook for the issues posed by the digital economy in market definition and market assessment.[26]

25. See Competition Policy Handbook, *How Competition Policy Works Today*. The handbook is available at: http://www.gsma.com/publicpolicy/wp-content/uploads/2015/10/Competition-Policy-Handbook.pdf
26. See Competition Policy Handbook, quoted, *Key Concept 1, market definition in practice.*

Figure 14: Market definition and market assessment in competition law and in SMP[27]



Significant market power - a summary

The Competition Policy Handbook did not provide a detailed explanation of the steps to be taken by a regulator engaged in the process of SMP regulation. Further to the feedback received from a number of regulators, we now provide in Appendix 2 a detailed explanation of the SMP regime with worked examples in the form of flowcharts. SMP regulation does depend on a market assessment, and this is not an easy task for regulators, especially in small jurisdictions where resources may be constrained and the number of experts limited. Nevertheless, it is especially important that a regulator understands the forces that shape a marketplace before it engages in regulation. Failure to do so can result in over-regulation.

In short, the system of SMP regulation starts with a consideration of the services that are substitutable at the retail level for consumers. When consumers in a geography can substitute away between products, then these products form a market (so called product market) and the geography forms a geographic market.

Once the retail market is defined, the regulator should apply the Three Criteria Test.

27. This is Figure 9 in the Competition Policy Handbook.

Figure 15: The Three Criteria Test as applied in the European Union, details in the flowcharts in Appendix 2.

Three-Criteria Test

1. The presence of high and non-transitory structural, legal or regulatory barriers to entry in the market
2. The market structure does not tend towards effective competition within the relevant time horizon (having regard to the state of infrastructure-based and other competition behind the barriers to entry)
3. **Competition law alone is insufficient to address adequately the identified market failure(s)**

These criteria are applied cumulatively — only if they are **all met** is a market considered not effectively competitive.

The test applies to overall market characteristics and structure, not to a specific operator (which is the focus of an SMP assessment).

If after application of the Three-Criteria Test the relevant retail market is found to be not effectively competitive, the closest wholesale market is analysed and the test is repeated. If the wholesale market is not effectively competitive, then the regulator must identify operators with significant market power and remedies must be imposed. As more particularly described in Appendix 2, remedies must be appropriate, that is, targeted to the particular issues identified and proportionate. They must also minimise the risk of regulatory failure.

Issues in regulation and competition law

A number of issues can be identified, as follows.

First, intervention in the telecommunications sector is predominantly by regulation rather than by competition law. In the context of the digital economy, this results in the inevitable tilting of the playing field, as the telcos are regulated and an increasing number of their competitors are not.

Second, at the operational level, intervention by regulation is often not based on a market assessment, resulting in blanket obligations often imposed to all operators regardless of market share, market power or in fact without a proper understanding of the issues that regulation is intended to address. Regulation is often applied at the retail level, giving rise to the risk of micromanagement identified in Figure 12. As shown in this booklet, in a number of countries there is no formalised system of regulation.

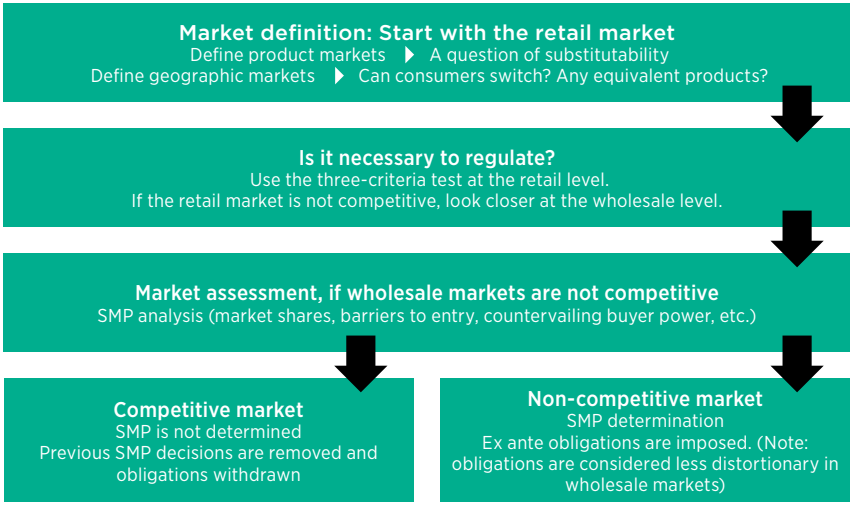
Third, in countries where the legal and political frameworks do not include competition law, it is not possible to apply criterion 3 of the Three-Criteria Test. Then, even though SMP regulation is still better than the alternative (i.e., regulation not based on a market assessment), the SMP system cannot operate properly and actors in the digital economy that are out of the regulatory system are also not captured by competition law.

Fourth, when SMP regulation exists, it is important that there should be market reviews every three to five years (maximum), given the pace of change in the communications industry. In our experience, however, it is not uncommon that reviews are carried out every six or more years, which increases the risk of application of outdated regulation.

Fifth, SMP regulation needs to start from a reassessment of the market definition. Too often a new SMP review consists of a regulator reaching out to the market definitions that were the basis for regulation at the time of the prior review. This results in a reassessment that is not conducted from the starting point of those services and products that consumers find substitutable at the retail level. Too often the new market review develops along the following lines, in the hypothesis of market regulation of SMS call termination: (i) at the time of the past review we considered that there was a market for SMS call termination; (ii) we note that currently there is some substitution between SMS and internet messaging, but we have no data about this; (iii) hence, the market is SMS call termination and we consider that the previous regulation should continue to apply. This fails to identify the question to be asked, namely how likely is it that a mobile operator would increase the price of SMS call termination if consumers can simply switch to a 'free' internet message provider? It may be that there are reasons why the operators can do so, but these should be seriously investigated.

Sixth, the above example shows the difficulty with collecting evidence. Internet providers do not have an obligation to disclose information, e.g., about the number of users in the country or rates of switching. This difficulty is acknowledged. Nevertheless, regulated companies and regulators can and arguably should make an effort to consider the rate of switching in their country. There are a number of apps providing internet analytics that can be used for the purpose, and also consumer surveys and company documents can provide valuable information. In the absence of proper information gathering, there is a real risk that existing regulation will continue to be carried out, by inertia.

Figure 16: SMP regulation in summary (see Appendix 2 for the details)



The International Dimension

Globalisation requires a global outlook in regulation and in competition law, and cooperation at a supra-national level. Too often, supra-national intergovernmental organisations take a soft-law approach that limits their effectiveness. Supra-national cooperation among regulators and among competition authorities often remains at the level of capacity building and know-how. While these are valuable goals, cooperation on enforcement can bring great benefits by enhancing predictability and legal certainty for all market players. When influential bodies such as the WTO link the adoption of telecoms regulatory measures to the ability of members to participate in trade agreements, they create a bias towards sectoral regulation.

With an increasing degree of globalisation and trade liberalisation, markets have become generally easier to access. Regional cooperation can bring enormous benefits for the countries that participate. Specifically in competition policy, through cooperation, the countries become better able to tackle potential anticompetitive practices across borders. Businesses can take advantage of harmonised substantive and procedural rules, reduced costs, enhancing legal certainty and minimising the risk of inconsistent findings by more than one competition authority, or inconsistent regulation by different regulators.[28]

A number of reasons explain why competition law and regulation of telecommunications have been considered and developed within a regional cooperation setting. Competition law and economic regulation are seen as complementary to rules on trade, which are often one of the main aims of regional cooperation. Creating a centre of gravity at the regional level can enhance the status and importance of competition law and regulation domestically. And regional solutions can be seen as necessary to solve cross-border issues.

This latter point is of particular significance in the context of this booklet. If globalisation in the digital economy has led to businesses operating across borders, often without a presence in the countries in which they operate, and if reliance on competition law (rather than regulation) to tackle issues of anticompetitive agreements and abuse of dominance makes sense, then it is important to consider the international dimension of competition law and regulation. Regional organisations play an important role as facilitators and coordinators, as issues in the digital era are inherently cross-border and transnational. Regional platforms also enable country-level lessons and successes to be propagated, so that emerging and transition societies have reference points for best practice. Cooperation can happen as a result of bilateral agreements between countries, or between the agencies of two countries, formally or informally. Free trade agreements between two countries often provide the backdrop for bilateral cooperation. Of more relevance globally are forms of multilateral cooperation through intergovernmental organisations.[29] Binding obligations are more difficult to achieve (as there is always the

28. Maher M Dabbah, *International and Comparative Competition Law*, Cambridge University Press, 2010, 402, 403
29. Maher M. Dubbah, quoted, pages 576, 577

fear that they will pose a threat to national sovereignty). Non-binding obligations are based on achieving consensus through instruments of soft law, such as guidelines, best practices or principles.[30] Even within this category, there is a difference between achieving harmonisation and convergence on the one hand and, on the other hand, creating a detailed international code in regulation or competition law to be adopted at the domestic level.[31] Binding obligations range from concluding a binding multilateral agreement to building an international regime with an independent institutional apparatus with capabilities and competence to handle cases. This latter model has been attempted by two regional organisations in Sub-Saharan Africa, namely COMESA and WAEMU.

International financial institutions (primarily development banks) often act also as knowledge hubs and thought leaders in international developments. The World Bank Group advises governments on improving the effectiveness of competition enforcement and policy, generates knowledge and analytical products on the importance of stronger pro-competition frameworks, and supports global initiatives to place competition policy on the development agenda. The World Bank Group, for example, has developed a number of documents quoted in this booklet, under its Global Competition Policy Programme. Some organisations such as the OECD also perform a know-how function for members and non-members alike, operating as a think-tank and best-practice body.[32]

With the exception of COMESA and WAEMU in Sub-Saharan Africa and, prospectively, with the possible exception of ASEAN in Asia, the regional intergovernmental organisations surveyed in this booklet adopt different variants of nonbinding multilateralism. This often affects timely delivery or limits the efficacy of their initiatives. Member countries and wider stakeholders of these platforms need to realise that the challenges of a digital era cannot effectively be met by maintaining the status quo. The GSMA believes that regional supra-national organisations should "consider the following to achieve their mandates in a rapidly digitising world: [33]

- Strengthen links with non-state actors such as the private sector, NGOs and academia. This inclusive approach will enable regional organisations to develop a more accurate take on the issues at hand by drawing in the necessary expertise.
- Recognise that the challenges of a digital era are opportunities to revive and rejuvenate member collaboration. While negotiation impasses and political posturing cannot be completely avoided in multilateral cooperation, moving up the digital society value chain is an agenda that countries can easily rally around and will allow these regional organisations to reassert their influence. Digital trade and commerce, digital financial inclusion and digital identity for development are examples of common accessible agendas that can readily turn into regional development goals.
- Identify alternative mechanisms to encourage action among members. The non-binding nature of institutions does not mean they have to succumb to inaction. Rather, regional organisations should leverage their convening powers to bring together members and a wider group of stakeholders across different sectors. For example, ASEAN still does

30. Multilateral instruments within a loose framework include the Organisation for Economic Cooperation and Development (OECD) and the United Nations Conference on Trade and Development (UNCTAD). These have all developed and produced best practice in competition law over the years but generally have not considered the interplay between competition law and regulation.
31. Maher M. Dubbah, quoted, pages 120-121
32. Specifically on competition law, the OECD has developed in recent times the following documents: http://www.oecd.org/daf/competition/46193173.pdf (principles); http://www.oecd.org/daf/competition/45544507.pdf (guidance); and http://www.oecd.org/daf/competition/COMP_Toolkit_Vol.3_ENG_2015.pdf (operational manual
33. GSMA, The Mobile Economy, Asia Pacific 2016, page 60, https://www.gsmaintelligence.com/research/?file=5369cb14451e0db728bd266c7657a251&download

not have a cross-sectoral channel linking telecommunications and finance at a working level such as APEC's Ad-Hoc Steering Group on the Internet Economy. For these platforms to be effective, they need to be charged with shorter term and achievable goals to avoid the fate of producing diplomatic platitudes."

The WTO framework has arguably had the most influence globally. By linking the adoption of regulatory measures to the ability of countries to participate in international trade, and through its own mechanisms for implementation (by each country into their national laws) and enforcement (by its system of dispute settlements) the WTO is a formidable international organisation. It pays to consider its role in the liberalisation of telecoms, and also to consider that, within the WTO framework, there is no generally applicable competition law.[34] Again, this exemplifies how telecoms is subject to a more stringent regulatory approach than other sectors.

WTO and sector-specific regulation[35]

The General Agreement on Trade in Services (GATS) is foremost among the WTO instruments relevant to telecommunications. The GATS Annex on Telecommunications requires WTO members to ensure that suppliers of scheduled services may access the public telecommunications network and services on reasonable and non-discriminatory terms.[36]

In addition, GATS encompasses a set of schedules that contain market access commitments on specified services. Each Member may decide when, and to what extent, to commit on market access for telecommunications. Members' commitments vary greatly from one schedule to the next. Which services are opened to competition and the types of restrictions maintained reflect the type of reforms in place or anticipated by each government at the time of the negotiations.

The negotiations on basic telecommunications resulted in the Telecommunications Services: Reference Paper. It was designed as template of a framework for sector regulation adapted to a competitive environment.[37]

According to the WTO website,[38] a "total of 108 WTO members have made commitments to facilitate trade in telecommunications services. This includes the establishment of new telecoms companies, foreign direct investment in existing companies and cross-border transmission of telecoms services. Out of this total, 99 members have committed to extend competition in basic telecommunications (e.g., fixed and mobile telephony, real-time data transmission, and the sale of leased-circuit capacity). In addition, 82 WTO members have committed to the regulatory principles spelled out in the 'Reference Paper', a blueprint for sector reform that largely reflects 'best practice' in telecoms regulation." It is instructive to consider the relevant provisions in the Reference Paper,[39] which is legally binding for all WTO members that commit to it.

34. For a full list of WTO commitments and exemptions, see: https://www.wto.org/english/tratop_e/serv_e/telecom_e/telecom_commit_exempt_list_e.htm
35. With special thanks to Dr Hetham H Abu Karky, PhD, for his suggestions, and for sharing his article *Bring the Topic of Competition back to the WTO,* to be published shortly
36. The 2004 panel ruling in the WTO dispute settlement case on Mexican telecoms regulation confirmed the importance and legal weight of these guarantees. In this case, the US complained that Mexico had erected regulatory barriers that impeded the commercial resale of long distance and international long distance services originating in Mexico. The WTO Panel found in favour of the US (and third party interveners) and Mexico adopted new regulations. See: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds204_e.htm
37. Telecommunications Regulation Handbook, Tenth Anniversary Edition, quoted, page 21
38. https://www.wto.org/english/tratop_e/serv_e/telecom_e/telecom_e.htm, although the data on the website appear to be not entirely up to date
39. Available at: https:b//www.wto.org/english/tratop_e/serv_e/telecom_e/tel23_e.htm

The Reference Paper includes six short provisions dealing with:

- the institutional framework (Principle 5, Independent Regulator) — there should be a regulator for the telecoms sector, separate from suppliers of telecommunications services and impartial with respect to market participants;
- transparency (Principle 6, Allocation and use of scarce resources; Principle 4, Public availability of licensing criteria);
- substantive provisions to ensure interconnection (Principle 2, Interconnection) and to allow members to impose universal service obligations on telcos (Principle 3, Universal service); and
- so-called "Competitive safeguards" (Principle 1).

There are two provisions under the competitive safeguards Principle 1, as follows (emphasis added).

> *1.1 Prevention of anti-competitive practices in telecommunications – Appropriate measures shall be maintained for the purpose of preventing suppliers who, alone or together, are a major supplier from engaging in or continuing anti-competitive practices.*
>
> *A major supplier is defined as: "a supplier which has the ability to materially affect the terms of participation (having regard to price and supply) in the relevant market for basic telecommunications services as a result of: (a) control over essential facilities; or (b) use of its position in the market.*
>
> *1.2 Safeguards – The anti-competitive practices referred to above shall include in particular:*
>
> a. *engaging in anti-competitive cross-subsidization;*
> b. *using information obtained from competitors with anti-competitive results; and*
> c. *not making available to other services suppliers on a timely basis technical information about essential facilities and commercially relevant information which are necessary for them to provide services.*
>
> Essential facilities re defined as *"facilities of a public telecommunications transport network or service that (a) are exclusively or predominantly provided by a single or limited number of suppliers; and (b) cannot feasibly be economically or technically substituted in order to provide a service."*

In a nutshell, therefore, Principle 1 obliges the WTO members that have committed to the Reference Paper to impose regulation for the prevention of anti-competitive practices by telecommunications operator that have a position of market power, *"alone or together"*, similar to the system of SMP and collective SMP regulation. The six principles of the Reference Paper have come to serve as a checklist of success of telecommunications reform in many countries.[40]

40. World Bank Telecommunications Regulation Handbook, quoted, page 21

WTO and competition law

Nothing similar applies generally to the economy as a whole, as would be the case if the WTO included a framework paper for competition law. In 1996, the WTO Working Group on the Interaction between Trade and Competition was created. This became known as the Singapore Group. Initially it focused on what was deemed to be the core principles of interface between competition law and trade, namely: transparency, non-discrimination, procedural fairness, voluntary cooperation, capacity building and limitations on hard core cartels. The Singapore Group made a major contribution to the initiation of a debate on a WTO competition law agenda, but its mandate was always limited. The intention was to provide a forum for discussion without any signal that formal negotiations between WTO members on a competition agreement would definitely ensue. In practice, insufficient progress has been made towards a WTO competition law framework. As has been stated:

"Perhaps the only occasion on which the WTO community came fairly close to taking a concrete step was at the 4th Ministerial Meeting — the Doha round — in 2001 when it was agreed to include competition policy in the Ministerial Declaration and to start formal negotiations on competition policy within the WTO framework following the 5th Ministerial Meeting, namely the Cancun round which would occur in 2003. This particular Declaration established a 'vision' of a bright future for a WTO competition law agenda especially in light of how specific it was in terms of setting out the topics on which negotiations would take place, including, among other things: hard core cartels; offering support to competition authorities of the developing world through capacity building; and cooperation between countries and specifically between their competition authorities in the field. The remarkable failure of the Cancun round in 2003 however delivered a fatal blow to the Doha round efforts and achievements with the decision taken to exclude competition policy from future trade negotiations at the WTO."[41]

As a result of this resolution, the working group established pursuant to the Doha declaration was put on hold, although not abolished. The group still provides support to countries that wish to implement a competition policy. This is evident in the technical support provided to Zambia, Cameroon, Ethiopia, Yemen, and Trinidad and Tobago.[42]

Nevertheless, the WTO's rules linking the ability to participate in international trade and telecommunications liberalisation mean that in virtually every country there is a telecommunications regulator. The lack of an equivalent provision in competition law means that the adoption of competition law is not as widespread. This perpetuates a system of sectoral regulation arguably not well suited to the digital economy.

41. Maher M. Dabbah, quoted, pages 157-158
42. WTO (2015), competition policy: Technical Assistance in regard to Trade and Competition Policy: From: http://www.wto.org/english/tratop_e/comp_e/ta_e.htm#regional [Accessed 05 July 2016].