Resetting competition policy frameworks for the digital ecosystem

Executive Summary – October 2016

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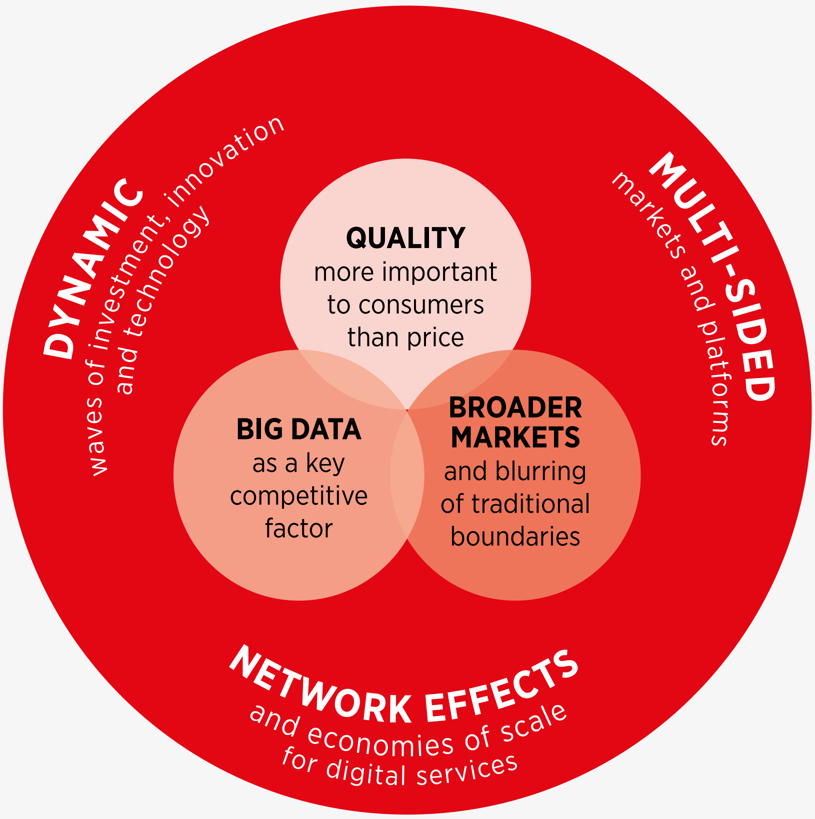
Introduction

The global economy is undergoing a major transformation. The rapid take-up of technologies including mobile communications, digital platforms, big data, cloud computing and social media are changing the nature of products and services and the way in which people interact. This transformation is disrupting existing business models and industries, while offering substantial potential to enrich lives and raise living standards.

The features of the digital market call for a different and more nuanced approach to competition policy



Competition in digital markets is different from competition in traditional markets. In particular, competition in digital markets has a number of distinct features:

- Waves of investment and innovation and rapid technological progress
- Quality and product features that are often more important to customers than price
- Winner-takes-all outcomes where new entrants offering innovative products or services may be able to leapfrog established firms
- Economies of scale and strong network effects in the supply of digital services
- Multi-sided markets and platforms with distinct groups of users on the different sides benefiting from the presence of the other
- Large-scale data gathering and analysis, with the potential for anticompetitive effects, especially where it contributes to the quality of service

These differences challenge existing policies and call for a reset of the competition framework to ensure the competitive process, and a more nuanced approach to competition policy for the digital ecosystem.

In this report, we assess how governments and regulatory authorities can update competition and regulatory frameworks to realise the full potential of the digital economy. Our policy recommendations cover four areas:

- Market definition and assessment of market power
- Adoption of a total welfare standard in place of the consumer welfare standard
- The balance between *ex ante* and *ex post* regulation
- Institutional arrangements

Market definition and market power

Market definition is a useful first step to frame the discussion of competition and regulatory concerns. Assessment of market power and the critical appraisal of its constraints are typically undertaken with reference to the boundaries of the relevant market set at the market definition stage.

Market definition therefore plays a pivotal role in establishing whether a firm is deemed to possess dominance or significant market power. It provides a framework for *ex post* competition enforcement and merger control. It is a key stage in the assessment of whether *ex ante* regulatory intervention is required.

Competition authorities need to take into account the unique features of digital markets when defining markets and assessing market power. With digital products and services, the use of tools such as the small but significant non-transitory increase in price (SSNIP) test becomes more challenging.

The main purpose of market definition is to identify the competitive constraints faced by a supplier of a given product or service. Defining a relevant market is not an end in itself, and the market definition exercise aims to provide a framework in which anticompetitive agreements, abuses of dominance, the competitive aspects of mergers or the need for regulation can be analysed.

While existing tools may not be applicable in some digital markets, market definition and market power assessment still have an important role to play in answering specific competition or regulatory questions in digital markets. There is no compelling reason for authorities to dispense with a formal market definition stage just because of the shortcomings of some of the more prominent tools such as the SSNIP test. However, authorities can and should use their discretion in choosing assessment tools, which may be contained within the respective legislation or guidelines. Ultimately, the market definition should reflect the analysis of likely competitive effects and should not be viewed as just a tick-the-box exercise to meet legal requirements.

Recommendation 1: Adjust existing tools to account for specific features of digital markets

When using existing tools to define relevant markets in the digital ecosystem, authorities should be cautious but flexible in their approach and accommodate different types of evidence when defining product and geographic markets.

It is important that authorities account for the linkages between the different sides of two-sided or multi-sided markets (either at the market definition stage or subsequently during the competitive assessment stage). Adjustments to the SSNIP test for two-sided markets can assist in this.

Recommendation 2: Focus on actual substitution patterns

In traditional industries, markets are often defined around products with similar physical characteristics. Digital markets, on the other hand, tend to include a broad range of services or capabilities that customers treat as substitutes. Thus, traditional boundaries between products and services — as defined by the technology used to deliver or produce them — start to disappear.

The focus of market definition should be on understanding and describing actual substitution patterns. Drawing ‘bright line’ boundaries around product features or technologies is often unhelpful and misleading when consumers do not perceive clear boundaries between the products or services in question.

Recommendation 3: Use alternative tools to capture the main determinants of consumers’ switching behaviour

In a standard market-definition exercise, the focus is on price as the main driver of switching by consumers. However, in digital markets, differences in product features or functionalities may be more relevant. As a result, the use of the traditional SSNIP test is inappropriate in cases where there is no monetary price or where competition takes place over non-price factors such as quality.

Where goods and services are provided free of charge, authorities need to consider alternative approaches to the SSNIP test, such as changes in quality levels or non-monetary privacy costs, (e.g., through the use of a small but significant non-transitory decrease in quality [SSNDQ] test) to capture the main drivers of consumers’ switching.

Recommendation 4: Ensure market definition is sufficiently forward-looking, and revise and adapt policies to fully capture changes in the relevant market

Digital markets are highly dynamic. Market definition must, therefore, be sufficiently forward-looking to determine the likely competitive effects. The time horizon used should consider the period in which any remedy might impact the market, as well as any short-term harm. *Ex ante* market definition is likely to require a longer time horizon than those typically used by competition authorities for *ex post* enforcement.

Where evidence indicates that markets have changed or are likely to change, so as to warrant deregulation, competition and regulatory authorities should revise existing interventions, including establishing sunset clauses where measures may be warranted for a short remaining time. Caution is appropriate where new regulations are being introduced or existing ones are tightened as this may undermine incentives for operators to invest and innovate if they are unable to recover their costs.

Recommendation 5: Focus on alleged anticompetitive conduct and its likely effects rather than inferring market power from market structure

Structural indicators of market power, such as high concentration or high margins, can be misleading in digital markets. Competition between a few players can be intense. Market leaders can be effectively displaced in a short period of time.

Competition authorities should focus on alleged anticompetitive conduct and its likely (or actual) effects and not infer market power concerns from market structure. In digital markets, the indicator of market power is usually the power to exclude, which is not necessarily associated with higher market shares or higher profits.

Recommendation 6: Assess the extent to which big data confers market power

Large-scale data gathering and analysis has become an important feature of digital markets, with potential for anticompetitive effects. The widespread collection, storage and processing of data may in some cases lead to barriers to entry for potential new rivals. The impact of big data on market power will depend on the product or service in question. It needs to be assessed on a case-by-case basis. Key issues are the replicability of information and the significance of the scale and scope of data for competitive performance.

Authorities need to bear in mind that data per se need not raise competition concerns. However, competition concerns may arise when dominant firms merge users' data to create cross-platform synergies, which may allow a firm to become a gatekeeper for access to essential inputs. Concerns may also arise when market power is leveraged into emerging markets if there is a foreclosure effect. Overall, the competitive and welfare outcomes of such strategies are ambiguous, and need to be carefully assessed with care.

Recommendation 7: Maintain a high threshold for intervention based on collective dominance

Collective dominance may occur in markets with a limited number of operators where no single firm has significant market power but the firms may possess dominance collectively. The following conditions must be satisfied for collective dominance to emerge and be sustained in the market: firms must be able to reach a coordinated position, they must be able to monitor each other, deviating from the coordination must be perceived as costly, and other firms and customers must not be able to undermine the coordination.

Digital markets are dynamic and highly innovative. There are powerful network effects and potential for a winner-takes-all outcome. They are not well suited to coordination and collective dominance. Therefore, the threshold for intervention on the basis of collective dominance should remain high — much higher than that for single-firm dominance.

The total welfare standard

When assessing the effects of competition policy and regulation, economists generally accept that interventions should be assessed with reference to a total welfare standard rather than the consumer welfare standard that is more commonly adopted by authorities. As a first principle, competition policy and regulation should be concerned with the welfare of society as a whole. It would be arbitrary for a government to attach no weight to the welfare of some parts of society. This is even more the case given that the people producing are also consumers, shareholders who receive dividends, employees who stand to capture some of the higher profits in the form of higher wages or investors such as those with pension funds.

The consumer welfare standard used by most authorities only considers the gains to consumers from the intervention, where the 'surplus' that consumers receive is the difference between what consumers are willing to pay for a good or service and what they actually pay. Under this standard, efficiency gains are only taken into account to the extent that they benefit the customers buying the good or service in question, particularly if efficiency gains will result in lower prices. The total welfare standard, on the other hand, captures the impact of an intervention on the economic welfare of all participants in the market, including producers and consumers. Under a total welfare standard, competition policy and regulation is based on whether the aggregated value (to consumers and producers) would be raised or lowered, without regard to how the particular gains or losses are distributed.

Recommendation 8: Adopt a total welfare standard to support long-term productivity growth and higher living standards

The adoption of a total welfare standard in the assessment of competition issues would support higher living standards over time. A total welfare standard would take all efficiency gains into account and explicitly weigh them against competition effects. Such an approach would be superior to measuring only the consumer welfare, which could wrongly result in efficiency-enhancing mergers being banned.

Authorities should allow mergers that are expected to increase total welfare, taking into account the likely effects on both competition and efficiency. Mergers that give rise to cost savings are also likely to benefit consumers in other markets where resources would be redeployed. Distributional concerns can be effectively addressed by weighting the benefits and costs differently for different groups of consumers and through fiscal policy, with the gains in total welfare being deployed to assist the most vulnerable groups.

Recommendation 9: Focus on dynamic effects when assessing mergers and competition in digital markets

The competitive behaviour of firms in digital markets often affects not only prices but also quality, innovation and overall economic efficiency. Merger assessment guidelines recognise the effects of competition on quality, product variety and innovation as well as prices. However, in practice, authorities tend to focus on price.

The focus of merger reviews on (often short-term) price effects is a particular problem in relation to markets in the digital ecosystem, where firms offer differentiated products and consumers often attach as much, or more, importance to quality. In digital markets, innovation offers the potential for significant improvements to quality over time. Mergers can eliminate inefficient duplication of costs and lead to investment that improves the quality of service or introduces new services. A rigorous assessment of the likely effects on quality, innovation and efficiency is therefore critical to understanding how mergers would affect competitive outcomes.

A number of analytical approaches can be used to assess dynamic effects, including a clear exposition of any theory of harm or benefit, assessment of how the merger or conduct would change firms' incentives and abilities to innovate, greater use of independent industry and technical experts, and approaches to weigh opposing effects, where the merger or conduct is expected to lead to increases in price as well as improvements in quality.

Recommendation 10: Use better tools to assess efficiencies

The high burden of proof applied to efficiencies is likely to prevent some mergers from taking place that would otherwise benefit society and consumers. Authorities should discount claims that are not sufficiently substantiated. However, there may be genuine uncertainty in relation to innovative business practices, and there is no compelling reason for authorities to impose a higher burden of proof on such efficiencies than on short-term price effects.

Competition authorities should improve their approaches for assessing efficiencies. Analytical approaches that can assist authorities include the use of economic, technical and industry experts, evidence of similar efficiencies being realised in earlier transactions or in other markets (including by reference to the developing studies on cost pass-through), and analytical techniques such as Data Envelopment Analysis and Compensating Marginal Cost Reduction.

Ex ante and ex post regulation

The converged digital ecosystem has increased the interactions between players using different technologies, or offering different services and applications, resulting in lower barriers to entry and more competition. As a result, there is less need for *ex ante* regulation and also a greater risk that, where regulation is retained, it will distort competition and deter innovation.

Sectoral regulation and competition law have both developed to meet problems that might arise from market failure and/or market power. While there is a case for *ex ante* regulation where enduring sources of market power exist, the role for *ex ante* regulation is likely to be limited. Sectoral regulation should meet the following conditions:

- Regulation should target economic activities that have no potential for competition and should allow for competition in other parts of the value chain. Competition is more effective than regulation in spurring product and service innovation over time.
- The potential for competition should be assessed over a sufficiently long timeframe, with milestones established for the removal of regulation to attract new entry if possible. This would help to avoid unnecessary, self-perpetuating regulation.
- The benefit of regulation that can result from correcting market failures should be weighed against the costs. Careful consideration should be given to the risk of regulatory failure and associated costs resulting from setting prices inefficiently or mandating a particular quality level that result in fewer offers when customers would benefit from more differentiated offers.
- Where investment is subject to significant *ex ante* risk (e.g., highly uncertain demand or the use of an unproven technology) it may be necessary to refrain from regulating, at least for a period of time, due to the difficulty of setting terms and conditions that do not damage incentives for future investment.[1]
- Where the service is provided to customers with significant countervailing bargaining power, *ex ante* regulation may not be needed to prevent the use of market power.[2]

Ex post competition law enforcement is much better suited to dynamic markets, where the risks of regulatory failure are high. Competition law is inherently more flexible than *ex ante* regulation because it does not specify what firms should do, but only what they should not do. Competition enforcement thus allows firms the freedom to set terms and conditions within a potentially wide range of acceptable behaviour. This can be important in digital markets, where firms may wish to introduce a range of differentiated offers with various combinations of prices, product features and quality of service, and where market conditions can change rapidly.

Regulation can reduce the incentive for entry based on new business models and technologies. Regulation should be assessed on a forward-looking basis, with regulation being withdrawn where there is potential for entry to lead to effective competition. The removal of regulation applied to only a subset of competing firms can also improve efficiency by enabling firms to compete on a level playing field.

1. For example, governments generally recognise that it would harm dynamic efficiency to cap the return to patent-holders.
2. For example, Australia applies such a light-handed approach to airport services provided to airlines (see Productivity Commission, 'Economic regulation of airport services', (2011)).

Recommendation 11: Review the thresholds for *ex ante* regulation to ensure balance between regulation and investment risks

The European regulatory framework for electronic communications identifies markets as being susceptible to *ex ante* regulation on the basis of three conditions: (i) the presence of high and non-transitory structural, legal or regulatory barriers to entry; (ii) the market structure does not tend towards effective competition within the relevant time horizon; and (iii) competition law alone is insufficient to adequately address the identified market failure(s). In practice, the European framework establishes a threshold for *ex ante* regulation based on a finding of significant market power.

Governments should review the thresholds established for *ex ante* regulation to ensure they balance any expected gains from regulation against the risks to investment and innovation. For example, the appropriate threshold for *ex ante* access regulation should balance the benefits from enabling competition based on regulated access versus the risks to investment by infrastructure investors. In markets where there are material risks to investment and innovation by either incumbent firms or entrants, the costs of *ex ante* regulation may outweigh the benefit or call for less intrusive forms of regulation. Importantly, investment risks should be taken into account by applying a sufficiently long time horizon in assessing the potential for competitive entry.

Recommendation 12: Focus *ex ante* regulation on enduring market power

Technological convergence should allow for some *ex ante* regulation to be removed with remaining regulation focused on enduring market power where rival infrastructure (of any technology) is unlikely to be replicated. Where multiple infrastructures are present, which either directly or indirectly constrain each other through competition at the retail level, access regulation is less likely to bring material benefits that would outweigh the risks to further investment and innovation.

While many aspects of the digital ecosystem suggest that enduring market power will be relatively rare, a robust regulatory framework should enable regulation to be applied where new bottlenecks emerge, and where the expected benefits of regulation are greater than the costs. In dynamic markets with high levels of innovation, the focus of authorities should be on the firm's conduct to ensure that new bottlenecks do not reduce competition rather than on price controls that might harm investment incentives.

Recommendation 13: Ensure consistent and streamlined regulation that is consistent with competition law

While competition law is likely to be effective in many circumstances in dealing with enduring market power, *ex ante* regulation may also have a role to play in such cases. A specialist regulator can, for instance, more readily determine the terms and conditions of access required to protect competition in related markets. The relative merits of *ex ante* regulation and *ex post* competition law enforcement should be considered to determine the appropriate role for each.

Regulatory impact assessments should be undertaken when it is deemed that *ex ante* regulation might be better suited to deal with a particular competition problem. Such assessments ensure that the *ex ante* regulation is proportionate, that key effects are identified, and that the regulation will bring greater net benefits than alternatives. In dynamic, highly innovative and multi-sided markets, regulators should be cautious in intervening to change terms and conditions unless they can be confident that their intervention will bring net benefits.

Regulation should be streamlined to be competitively neutral. When a specialist regulator has determined that certain terms and conditions are not harming competition, they should not be found to be in breach of competition law. It is important, however, to ensure that there are no gaps in enforcement. Competition authorities should be able to act on matters that the regulator might have failed to consider properly. Regulators should adhere to a clear, long-term regulatory framework and commit to add, remove or modify regulation in accordance with changing circumstances.

Institutional arrangements

While a shift towards *ex post* enforcement in the digital ecosystem is desirable, leaving *ex ante* regulation to focus on enduring market power, the question is how to achieve this. In recent years, different jurisdictions have adopted different institutional arrangements. These include the following:

- The integration of sector regulation and/or consumer protection within the competition authority
- Independent sector regulators with concurrent competition powers
- An all-purpose regulator that cuts across all regulated industries, such as placing regulation of infrastructure bottlenecks across sectors within one authority

While institutional design varies and there is no one 'best' institutional arrangement, we can draw some general conclusions from a review of the different arrangements.

- The independence of regulators and competition authorities is vital to ensuring a fair and transparent system that supports the competitive process, regardless of the institutional arrangement. Countries that have weak institutional arrangements should establish independent competition and/or regulatory authorities with appropriate funding and clear, credible rules that support investment and innovation.
- Competition authorities and sector regulators should cooperate closely to ensure competition policy principles are applied consistently across sectors and support a move towards *ex post* enforcement.

Recommendation 14: Reassess institutional arrangements

Governments should assess their institutional set-up and rules to ensure they are suited to a shift from *ex ante* regulation to *ex post* enforcement. While the ideal institutional set-up is country specific, different institutional arrangements have been implemented across jurisdictions, and each has its advantages and disadvantages.

Integration of sector-specific regulators with competition authorities can reduce the risk of regulatory capture and creep, increase efficiency and effectiveness of competition oversight, enhance legal certainty and reduce costs due to economies of scope. There can be substantial synergies, and the broad expertise and experience from regulators and competition experts can mitigate inconsistencies in the application of competition policy and economic regulation, enhancing the quality of authorities' decisions.

Proponents of separate sector-specific regulators with concurrent powers argue that different approaches required by competition policy and economic regulation may lead to a competition authority placing too much emphasis on short-term wealth transfer to consumers that undermine the incentives for investment than promote the longer-term interests of consumers. Additional advantages of maintaining sector-specific regulators include an increased amount of sector-specific information, reduced information asymmetry and access to yardstick competition to compare the performance of different regulators.

Another arrangement adopted in some countries places all infrastructure bottlenecks under one regulator. In this case, regulation focuses on true enduring market power and facilitates migration to a system with greater reliance on the use of *ex post* enforcement of competition law. While a single infrastructure regulator would streamline regulation to some extent, it would still leave open the possibility of inconsistency between the competition authority and regulator.

Where more than one regulator exists, governments should develop institutional arrangements that minimise any overlap of responsibilities and avoid duplication of agencies with similar responsibilities. This can help ensure regulatory consistency, avoid uncertainty and reduce resource cost for both government and businesses of multiple regulators looking at the same matter.

Recommendation 15: Adopt interim measures to accelerate *ex post* enforcement and mitigate potential harm from anticompetitive conduct

Ex post competition law is often criticised as being too slow, specifically in dealing with competition issues in fast-moving digital markets. In many competition cases, the duration of an investigation between the first complaint and the final decision takes years. The competitive infringement, if it continues during the investigation, can cause severe and irreparable damage to competition. Regardless of any remedy that ultimately results from the investigation, the infringement may lead to a permanent dominant position of the infringing firm, particularly if rivals exit.

Competition authorities can impose interim measures to prevent further and more permanent harm. However, the assessment of the potential harm may be difficult in digital markets and the implementation of an interim measure may be overprotective, harming a firm that is later found to not have infringed competition law. Therefore, care is needed in the choice of the interim measure. Two main conditions should be met before an interim measure is imposed:

- Urgency due to the risk of serious and irreparable harm to competition
- The likelihood of an infringement being found

Authorities should review timeframes to ensure an appropriate balance between the speed of competition proceedings and the quality of the investigation. As digital markets are typically quite complex, a balance has to be struck between the speed of the investigation and allowing sufficient time for a proper and fact-based investigation. This involves (i) prioritising urgent cases where the potential for harm is great, (ii) enhancing data-gathering and processing capabilities, (iii) making use of outside industry experts early on, (iv) using early settlements and commitments where appropriate, and (v) ensuring a fit-for-purpose, streamlined appeal process.

Conclusion

The digital economy can make life easier, more productive and more enjoyable for people around the world. Governments should ensure that their competition and regulatory frameworks take proper account of the market changes underway and provide a sound basis for ongoing competition, investment and innovation to the benefit of all.

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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

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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 consistent and streamlined regulation that is consistent with competition law

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14. Reassess institutional arrangements

15. Adopt interim measures to accelerate *ex post* enforcement and mitigate potential harm from anticompetitive conduct

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