

What are Fair and Reasonable prices?

Making a flexible concept tractable

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The concept of Fair and Reasonable (FR) pricing can be interpreted in different ways. This implies that the approach to calculating FR prices depends on the legal and regulatory context. In this article, Ciara Kalmus, Kadambari Prasad and Tanja Salem provide an overview of how FR pricing has been assessed and applied in standard essential patents, EU and UK telecoms regulation and emerging digital markets regulation.

Introduction

The concept of fair and reasonable (“FR”) pricing can have different interpretations and imply a different approach and calculation method depending on the legal and regulatory context.

This paper provides a systematic overview of these contexts in patents, EU and UK telecoms regulation, and emerging digital markets regulation:²

- a. **Standard essential patents (“SEPs”)** – fair, reasonable, and non-discriminatory (“FRAND”) was developed to address the market power of licensors of intellectual property that is essential to telecommunication standards. The goal of the FR pricing was to preserve investment incentives in the patented technologies, while fostering downstream competition in the implementation of those technologies.
- b. **The communications sector** – Here FR serves two main purposes: to preserve investment incentives in the presence of market power; and to promote wider policy goals, such as media plurality and reducing the costs of network roll-out.
- c. **Digital markets** – Here FR pricing has been imposed with different objectives. In the Digital Markets Act, FR is imposed with the dual objectives of guarding against the exercise of market power and promoting competition. The Data Act takes this further by imposing FR on a wide variety of firms, regardless of market power, to promote access to data.

Our findings indicate that:

- a. **FR can be used for different objectives:** FR pricing has been imposed to achieve different objectives, from preventing the exploitation of market power to fostering investment.
- b. **The appropriate methodology depends on the objective:** Different objectives can result in a different approach to FR pricing. It is therefore important that authorities provide clear guidance on their objectives and the principles they would use to determine whether prices are FR.
- c. **A value-based approach:** When FR is imposed to prevent the exploitation of market power while preserving investment incentives, approaches based on

economic value are key. What appears important here is the price that users are willing to pay or what they have paid in similar situations. This is true across all the sectors surveyed.

- d. **An opportunity cost based approach:** Where FR is imposed in circumstances where there is no market power, the assessment approach compensates the firm for the opportunity cost of providing access.

Standard Essential Patents: FRAND should reward investment “but for” market power

The concept of FRAND pricing originated in the context of licensing SEPs. Before a standard is agreed upon, there can be a choice about which patented technologies to include. However, once a standard is established, the patents essential to that standard gain significant power because anyone implementing the standard must use those patents. This situation could potentially give the patent holders monopoly power. The FRAND commitment aims to prevent this by ensuring that the royalties charged for these patents are fair and reasonable. This means they should not be so high that they exploit this power, but also not so low that they fail to adequately reward the patent holders for their investment.

Standards typically specify technical criteria that devices can implement to perform specific tasks. Such standards have been common in many industries, including healthcare, manufacturing and telecommunications. They are generally considered beneficial for consumers, as they facilitate interoperability of devices. For instance, cellular standards like 2G, 3G, 4G and 5G allow devices to exchange data, even if they are produced by different manufacturers. To implement any standard, there are a set of technologies that are “essential” and patents that cover these essential technologies are SEPs.

FRAND should reflect the negotiations “but for” market power

The technologies themselves are typically developed competitively; however, once they are chosen to be part of the standard – and so deemed SEPs – they confer market power on those patent holders since every implementer has to get a licence to them. There is a risk that SEP owners can charge excessive royalties, particularly once the investments of the implementers are sunk (i.e., what is known as the “hold up” problem).

To alleviate this concern, Standard Setting Organisations typically require SEP holders to make a commitment that they will licence their patents on FRAND terms. If a royalty is above FRAND, it is less likely that the innovation will be widely implemented and that as many consumers as possible will benefit from it.

FRAND should maintain investment incentives

However, the FRAND commitment does not imply that the royalties should be as low as possible. Patent holders typically invest large sums of money in research and development activities. These investments are risky, in that they do not necessarily lead to implementable technologies, and they are sunk, in that once invested, they cannot be recovered. If royalties are too low, there is a risk that patent holders will not cover the costs of undertaking these investments. Anticipating that, patent holders may not undertake the investments in the first place or choose to opt for proprietary technologies rather than including them in standards.

The primary goal of the FRAND commitment is therefore to strike a balance between:

- e. ensuring access to patented technologies for implementers; and
- f. maintaining patent holders' incentives to invest in researching and developing standards.

Most economists consider that, as a matter of theory, the royalty should be equal to, or

reasonably related, to the economic value of that patent, i.e., the value of the underlying technology to society, rather than the market power conferred by standardisation. This is the price that the patent would command, 'but for' the licensor's market power.

This is of course difficult, if not impossible, to measure. However, there are methods that allow us to come close to the answer, which we describe below.

To arrive at a "but for" FRAND rate, comparable and value-based approaches are key

There are two main approaches to estimating FRAND rates in this setting. These are (i) based on comparable licence agreements and (ii) based on the total price or total value of all patents in the standard.

Both these approaches estimate FRAND based on either the prices of licences for comparable patents or the value generated by the patented technologies. They do not attempt to link the FRAND price to the costs of innovations. In the past, some practitioners attempted to use a "bottom-up" approach to determine the royalty by benchmarking it to the costs of implementing reasonable alternatives to the SEPs. This was however abandoned since it is difficult to determine what the alternatives would be and whether they could provide all the functionality needed.³

Comparable licences

The most popular approach⁴ to determine FRAND rates uses comparable licence agreements as a benchmark. This is because rates charged for comparable portfolios are a good proxy for the rates that would be agreed in arms-length transactions between willing licensees and licensors. The first step of using this approach is identifying comparable

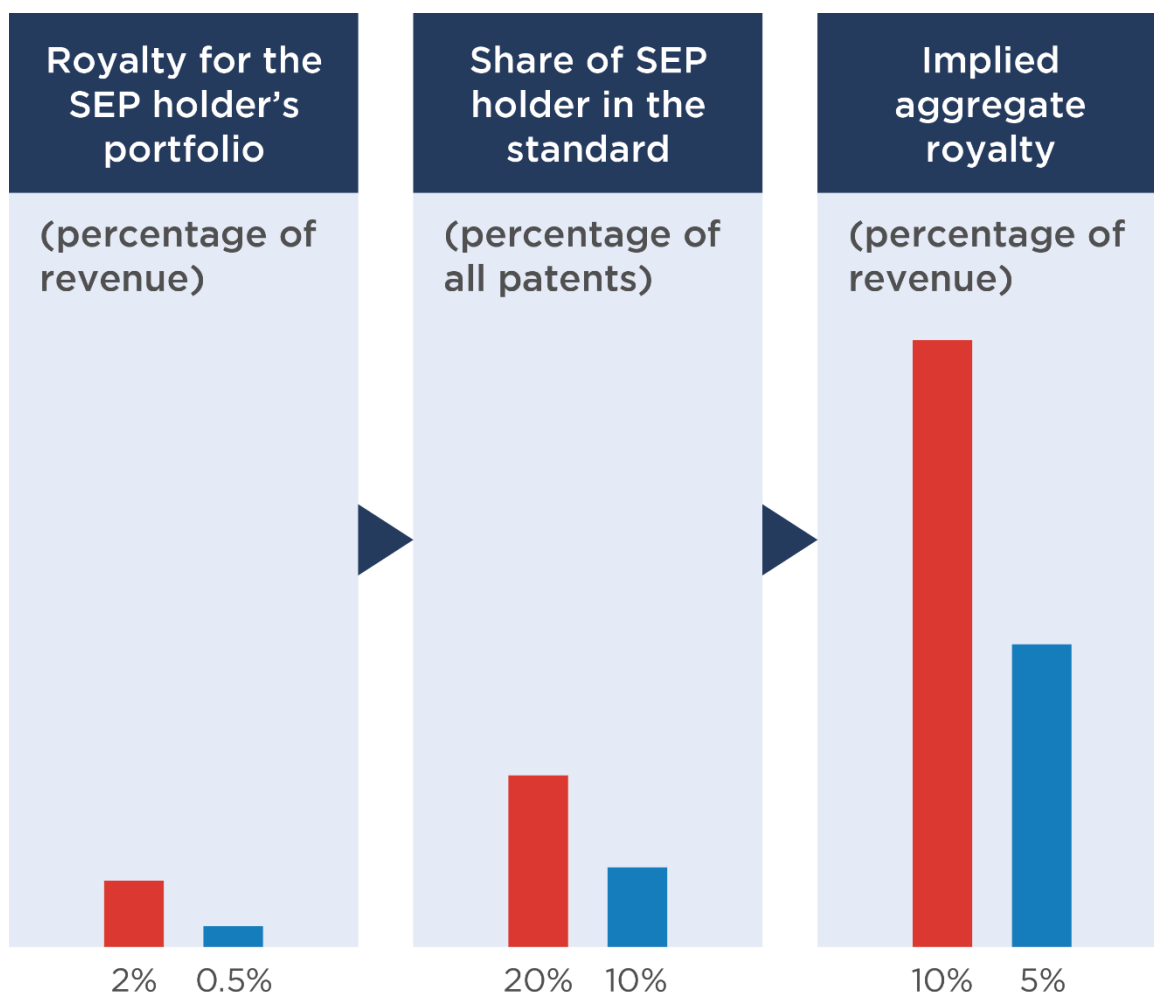
licence agreements in a systematic way. To do this, it is first useful to establish the dimensions that would be relevant in determining comparability.⁵ It should be noted that no licence agreement is ever a

perfect comparable across all dimensions. However, it may be possible to identify those that are more comparable, across a larger number of dimensions, and scale them appropriately to account for the differences that remain between them and the patents being valued.

In addition, it is possible to "test" whether the rate resulting from the comparables approach is reasonable. This is achieved by applying a scaling factor to the comparable rate to derive an *implied aggregate royalty rate*. In essence, this implied rate is the sum of all the individual rates if every other SEP holder licensed its SEPs at the same rate in proportion to their contribution. Therefore, if all patents made an equally valuable contribution to the standard, a licensor with double the portfolio of another would charge double the rate. Figure 1 on page 4 illustrates this concept graphically, using two examples, represented by the red and blue bars.

In the example shown by the red bars, the comparables approach determines the FRAND rate for a particular licensor's portfolio of SEPs to be 2% of the net sales price. This equates to an appropriate royalty payment of £10 for a £500 device. If the licensor's portfolio represents 20% of the value created by all the SEPs on the standard (i.e., for simplicity, that it owns 20% of the SEPs on the standard), then the *implied aggregate royalty rate* (i.e., the total royalty that an implementer would need to pay all the patent holders) would be $2\%/20\% = 10\%$ of the net sales price (or £50). In the second example shown by blue bars, the comparables approach determines the FRAND rate for another licensor's portfolio of SEPs to be 0.5% of the net sales price. If this licensor's portfolio represents 10% of the SEPs on the standard, then the *implied aggregate royalty rate* can be calculated to be $0.5\%/10\% = 5\%$ of the net sales price. It is then necessary to consider whether this implied aggregate royalty rate is reasonable in the circumstances.

Figure 1: Calculation of aggregate royalties based on rates for individual patent holders and their portfolio shares



Top-down approach

Another approach by practitioners is the top-down approach.⁶ This determines the FR rate by calculating the aggregate royalty for the standard and then apportioning it to individual SEP portfolios. This approach attempts to first calculate the size of the pie and then divide it amongst the stakeholders.

The aggregate royalty, or the size of the pie, can be calculated in a number of ways. First, some licensors make public statements about reasonable aggregate royalties for the standard.⁷ Second, there may be a related standard, the aggregate royalty of which is known and can be considered a proxy for the standard in question.⁸ Third, some proponents have argued that the aggregate

royalty must be constrained by the profits of the party implementing the technology in what is known as the “smallest saleable patent practicing unit” (“**SSPPU**”), however recent judgements by the Court have cast serious doubts on this approach.^{9,10} Finally, there are ways of estimating the incremental value of the technology directly (via choice modelling, conjoint analysis and demand estimation models) or indirectly in reference to the observed prices of products (via hedonic regressions). The aggregate royalty can be calculated as one which apportions the total economic surplus to the various stakeholders (patent holders, implementers, consumers) in a way that is fair and reasonable.¹¹

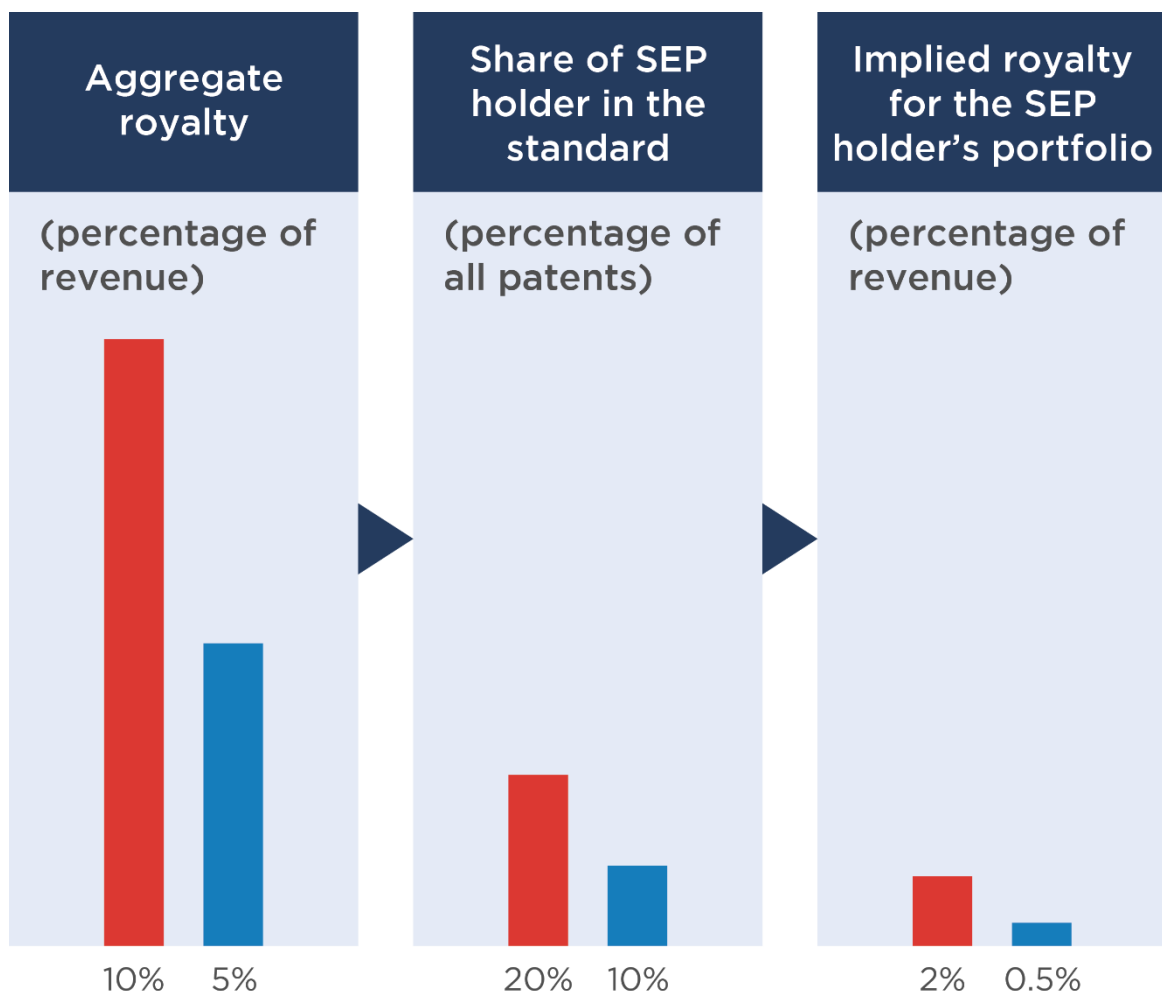
The apportionment of the aggregate royalty, or splitting the pie, is typically done based on the relative patent strength of the various licensors. This may be based on counting the number of patents in each portfolio, the number of patents that are judged essential (essentiality counting), the number of forward citations received by a patent portfolio (citation counting) or the number of technical contributions to the standard.¹² Figure 2 illustrates this concept graphically, using two examples represented by the red and blue bars.

In the example shown by red bars, the aggregate royalty is found to be 10% of the net sales price (i.e. on a £500 device, the appropriate royalty payment to all licensors would be £50). If the licensor's portfolio represents 20% of the value created by all the SEPs on the standard, the *implied* royalty rate

for that licensor would simply be $20\% \times 10\% = 2\%$ (or £10). In the second example shown by blue bars, the aggregate royalty is found to be 5% of the net sales price. If the licensor's portfolio represents 10% of the value created by all the SEPs on the standard, the implied royalty rate for that licensor would be $10\% \times 5\% = 0.5\%$. There may be some modifications that could be applied to the apportionment method, for example counting only judged essential patents rather than all declared patents. In cases where the value of patents is expected to vary significantly, it may not be appropriate to count the number of patents. In such cases, practitioners may need to rely on forward citations or counts of technical contributions.

The comparables approach has been used more often than top-down by the courts. This

Figure 2: Calculation of aggregate royalties based on rates for individual patent holders and their portfolio shares



is usually because it is easier to implement and requires fewer assumptions to be made about the relative value of licensors' portfolios.

In the communications sector, FR regulation comes in two guises: incentivising investment in the presence of market power, and promoting wider policy goals

Communications sector regulation has always balanced multiple objectives related to economic efficiency and wider policy goals.

Provisions related to economic efficiency address market power by:

- a. fostering competition, investment, and preventing market foreclosure, and
- b. preventing exploitative behaviour (e.g. excessive prices).

Wider policy goals are numerous. These include maintaining a universal service, consumer protection (including vulnerable consumers specifically), privacy, data protection, network security, media plurality and distributional fairness.¹³ Recently, additional measures were introduced to foster investment in very high-capacity networks.

FRAND pricing has been used in both contexts – to address market power and to achieve wider policy goals. Here, we summarise how FR was assessed in:

- **telecoms access regulation**, where significant market power (“**SMP**”) had been found; and
- **other forms of wholesale access**, where market power was not the main rationale for regulatory intervention.

Where FRAND addresses potentially enduring market power upstream, value-based access pricing preserves investment incentives while ensuring consumer choice and innovation

Historically, FRAND pricing was not used for wholesale access to older fixed telecom networks. For example, the 2002 EU communications sector Directive aimed to promote competition by mandating cost-based wholesale access to the existing (mainly copper) networks of the incumbent operators (the main telecom companies).¹⁴ However, this cost-based approach did not effectively encourage investment in new, advanced fibre-optic networks.

To foster more competition in building new networks (beyond just competition between cable operators and traditional incumbents), it was crucial to reduce entry barriers and set wholesale access prices at a level that would not discourage investment.¹⁵ This required a lighter regulatory touch, moving away from strict cost-based pricing and incorporating more use of FRAND terms.

- In the UK, access regulation determined prices based on value, primarily using the “retail minus” approach. This means that wholesale prices are benchmarked to retail prices. This strategy aims to balance two goals: encouraging both the dominant vertically integrated firms (which control both the infrastructure and retail services) and their competitors to invest in new networks and preventing these dominant firms from setting wholesale prices too high, which would stifle competition at the retail level.¹⁶
- Across the EU (excluding the UK for now), access regulation allows for risk-sharing agreements. These agreements let those seeking access to negotiate better terms if they agree to share part of the investment costs upfront. This approach aims to facilitate investment in new networks by sharing the financial risk between network operators and new entrants.

Since the 2010s in the UK, FRAND terms for wholesale access have preserved upstream investment incentives, while ensuring competition in retail markets

Since 2007, Ofcom, the UK's communications regulator, has applied FR pricing as an access remedy in cases where a strictly cost-based access price would be too low. A purely cost-based price might discourage BT Group and other companies from investing in upstream networks (the primary infrastructure).¹⁷ The FR requirement thus had two main goals: to foster competition

in network construction and investment, and to provide a safeguard to protect wholesale customers and ultimately consumers from high prices if competition alone was insufficient.¹⁸

Ofcom often stated that FR implies a no margin squeeze requirement.¹⁹ This typically resulted in a "retail minus access price" approach (as illustrated by the dark blue arrow in Figure 3).

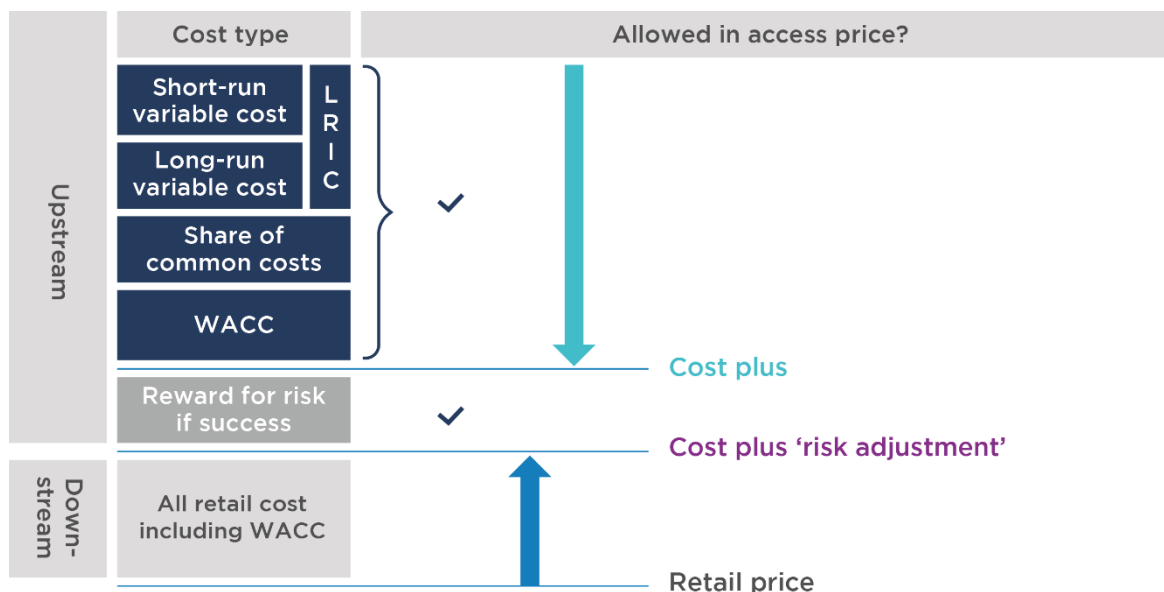
"Retail minus" conditions are designed to ensure competitive retail markets and prevent excessive pricing at the wholesale level. This approach is particularly relevant in situations where there is some competition from providers offering end-to-end services (not relying on wholesale access), but the

competition is not strong enough to eliminate the need for regulation completely. For example, if a major telecom operator competes with a cable operator in certain areas, retail prices are kept in check by both the retail competitors who depend on wholesale access and the direct competition between the cable operator and the telecom operator.

In many EU countries co-investment provisions under the European Electronic Communications Code ("EECC") were used to incentivise investment

The co-investment provisions in the EECC represent an alternative application of FRAND terms. These provisions aim to balance two objectives: preventing the abuse of market power and maintaining incentives for investment. Specifically, these provisions are designed to encourage investment in Very High Capacity Networks (VHCNs), such as advanced fibre-optic networks. Companies with significant market power should be allowed to make commitments to co-invest in VHCNs to open their network to co-investments instead of being subjected to regulated cost-based access pricing. This approach also ensures that there will be competition based on access in the long term (should end-to-end competition not emerge).

Figure 3: FR to protect against downstream margin squeeze: retail minus to support upstream competition between infrastructure investing firms



The strategy recognises that long-term contracts reduce investment risk, and that strict cost-based regulation of assets, once sunk, can discourage investment. This is because investors take on the risk of losing their investment and thus require the opportunity for a commensurate reward if the investment succeeds.²⁰

The EECC stipulates, at its most basic level, that FRAND terms of such agreements must “ensure that access seekers have access to the very high-capacity elements of the network at a time, and on the basis of transparent and non-discriminatory terms, which reflect appropriately the degrees of risk incurred by the respective co-investors at different stages of the deployment and take into account the competitive situation in retail markets.” [emphasis added]

The 2020 BEREC Guidelines offer three illustrative examples of co-investment business models that align with the regulatory conditions previously outlined. These examples also demonstrate the varying interpretations of FRAND terms, depending on the levels of risk faced by the involved parties.²¹

In a joint venture (JV) (as depicted on the left-hand side of Figure 4), all co-investors possess access to the joint venture’s infrastructure and can provide services to users under identical (or comparable) wholesale terms. BEREC notes that “for this reason and due to the fact that the joint

venture’s profits (e.g. generated by wholesale revenue) are usually distributed to the co-investors according to their respective stakes, the risk that the SMP operator can discriminate against other co-investors based on the level of the access conditions included in the offer is rather low”.

In a **reciprocal access model** (as illustrated by the middle structure in Figure 4), each co-investor constructs an independent network within a designated area and extends access to its network to all other co-investors.

Given the requirement for the co-investment agreement to remain “open” even after the initial agreement is established, regulatory terms for late entrants must be structured in a way that does not discourage early entrants who assume greater risks. The BEREC Guidelines thus mandate the implementation of an additional mechanism guided by two main objectives: firstly, ensuring fair compensation for investment risks, and secondly, maintaining sustainable access competition in the long term. This involves complementing the joint venture model with a **one-way access model** for latecomers. The former necessitates accounting for the risks taken by investors at the outset of the investment to prevent regulated access prices (which facilitate access-based competition for latecomers) from limiting potential returns if the investment succeeds. This suggests either a regulated access price plus a risk allowance, or alternatively, a retail minus price approach.

Figure 4: Models of Co-Investment

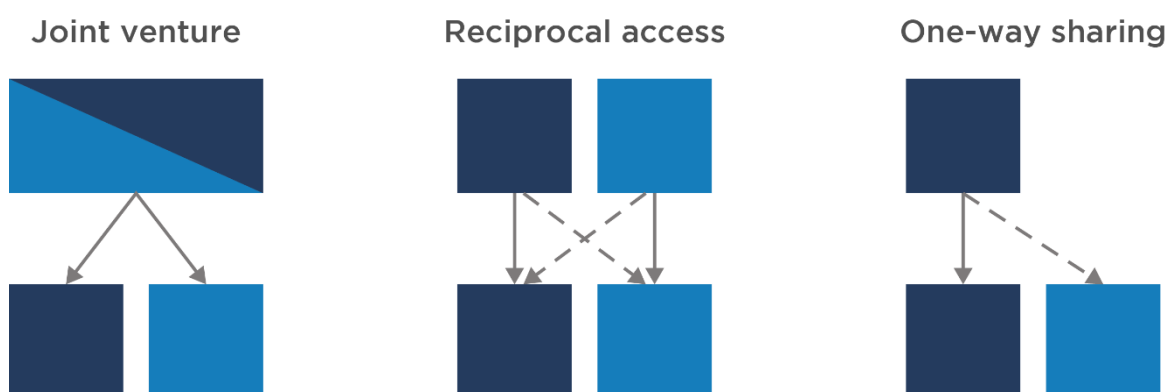
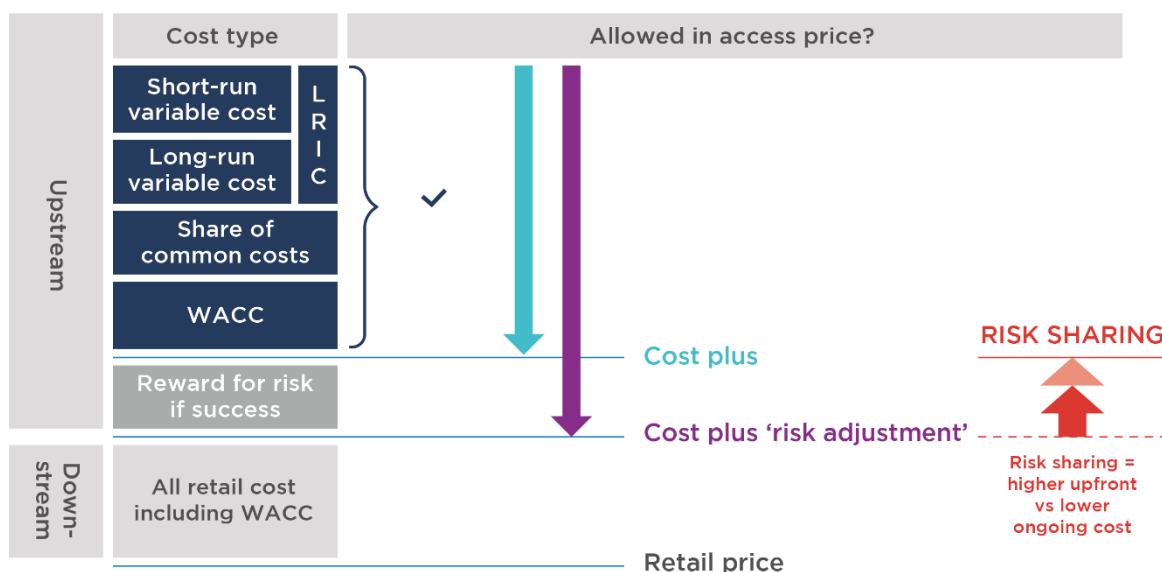


Figure 5: FR can also explicitly support wholesale access arrangements that allow for a form of risk sharing between the access seeker and access taker



The access arrangements established through this approach provide increased flexibility in rewarding and distributing investment risk between upstream network builders (in reciprocal agreements) and downstream retailers. Specifically, retailers who assume certain risks, especially demand risk where they have a better understanding, receive more favourable access terms. As a result, they are incentivised to compete more aggressively on price in retail markets to maximise capacity utilisation and recoup the initial upfront costs associated with such agreements, much like the network builders.

Where FRAND does not address market power, value and opportunity cost of access will have a role to play

FRAND has also been used in cases where no significant market power has been found. Examples in the EU's communications sector include:

- The regulation of conditional access systems which control access to television platforms;²²
- The obligation of providers of number-based interpersonal communications services to provide end-to-end

connectivity on "reasonable terms and conditions";²³ and

- Other provisions, including the Broadband Cost Reduction Directive ("BCRD")²⁴ that requires access to the physical infrastructure needed by VHCNs.

In the following section, we will examine two examples: the regulation of conditional access in the UK, and of the BCRD across the EU.

FRAND prices for conditional access services in the UK

Regulation of conditional access systems, known as Technical Platform Services

("TPS")²⁵ in the UK, serves as an example of comprehensive guidance on FRAND terms in the absence of a determination of market power. This regulation of conditional access systems emerged from concerns that control over access to viewers of traditional pay-TV operators might be exploited to bar other broadcasters from entering the market. Additionally, the issues of media plurality and consumer protection were also significant considerations.²⁶

In accordance with the European Communications Code and previously the

European Framework Directive, “undertakings providing conditional access services” (including, but not limited to, providers of pay-TV services via set-top boxes) “*which broadcasters depend on to reach any group of potential viewers or listeners are to offer to all broadcasters on a fair, reasonable and non-discriminatory basis ... technical services enabling the broadcasters’ ..services to be received by viewers or listeners.*”²⁷

In principle, it is understandable to safeguard the interests of smaller content providers or public service broadcasters, especially in situations where a platform might have limited capacity, as was the case with some broadcast multiplexes in the past. However, it is not immediately apparent why a broadcaster or pay-TV platform would have a commercial interest in limiting access to content that viewers desire. This is especially true in instances where no market power has been identified and consumers have the option to switch platforms if their desired content is unavailable.

However, Ofcom’s consultation on dispute resolution presents an interesting framework that could be applied to consider the pros and cons of different regulatory approaches for access to facilities and/or services with potentially enduring market power.²⁸ Determining FRAND access prices proved challenging due to the presence of a relatively high proportion of fixed and common costs as well as the presence of network effects. Network effects meant that the conditional access provider benefits from the addition of visual content to its platform, making it more attractive to end users. At the same time, the visual content provider benefits from reaching end users to the platforms.

The options explored were as follows:

- **Option 1. Commercial negotiations**, with transparency obligations and dispute resolution as a fallback.
- **Option 2. Setting cost-based prices on a benefits-based approach**, which allocates common costs based on the

relative benefits to different users (i.e. a share of value-approach).

- **Option 3. A behavioural approach**, which assesses the underlying rationale behind the TPS Provider’s decision to invest. The recommended approach was to require Sky’s retail pay-TV offering to bear the full distribution cost, considering Sky’s motivation to design the platform to primarily serve its own downstream arm, specifically its TV channels rather than those of other broadcasters.
- **Option 4. A Long Run Incremental Cost (“LRIC”) proportional mark-up approach**, which distinguishes between a pay-TV platform and a free-to-view platform. This approach considers that certain features are essential for pay-TV but not for free-to-view channels and allocates common costs, that is the mark-up, accordingly.

Ofcom rejected Option 1, stating that this approach may have been justified “during the early days of the DSat platform when there was less certainty of its success, business models for broadcasters were less mature and the value of the TPS Services was not as well understood”; that however, “there is now sufficient maturity in the digital TV industry to enable a more structured pricing methodology to be adopted which can better provide the advantages of transparency and predictability that will promote plurality and range of services and service providers.”²⁹

Ofcom’s final approach was a combination of the other three options.³⁰ It suggested that only a “very small proportion of customer equipment costs should be recovered from Free-to-View broadcasters”. However, determining an exact amount was deemed highly problematic. Therefore, for the sake of transparency, predictability and practicality, Ofcom proposed a “fixed percentage of costs” to be recovered from free-to-view broadcasters. This percentage would be based on an assessment of the benefits (in practice, revenues) they derive from being on the platform.

The impact of the Ofcom Guidance is uncertain. Without this guidance, it is unclear whether there would have been less competition among broadcasters or diminished media diversity.

The economic principles informing Ofcom's reasoning around potential options are likely to remain relevant as an analytical framework for determining FRAND terms available to regulators today, particularly concerning online platforms. Specifically, considering whether the platform's business incentives rely on providing access and assessing the distribution of value among different end users would be valuable.

However, achieving greater clarity on the rationale behind regulatory interventions – whether driven by competition, media plurality or consumer protection – would be desirable. Moreover, when competition is the primary concern, establishing a finding of market power appears to be a crucial prerequisite.

Use of opportunity cost in the Broadband Cost Reduction Directive

The BCRD³¹ offers another example of the use of FRAND terms in the absence of a sustained finding of market power.³²

The BCRD aims to expedite the deployment of high-capacity broadband infrastructure by mandating that all network operators – whether in electronic communications, energy, utilities or railway sectors – grant access to their physical infrastructure on “*fair and reasonable terms and conditions, including price*”. This access is intended for operators planning to deploy VHCNs. The directive permits telecoms operators to utilise infrastructure from other providers, such as electricity poles, railways and sewage ducts, to facilitate the expansion of their networks.

In contrast to regulations addressing significant market power, the BCRD provides access to all network infrastructure, regardless of whether the infrastructure owner and operator hold market power. Under the BCRD, access is expected to be

negotiated initially between the infrastructure owner and the access seeker. If negotiations fail, a dispute settlement body will intervene to resolve the disagreement.³³

Recital 19 of the BCRD delineates the principles guiding the dispute settlement body in determining whether proposed access terms are FRAND.

*“When determining prices for granting access, the dispute settlement body should ensure that the access provider has a fair opportunity to recover its costs incurred in providing access to its physical infrastructure, taking into account specific national conditions and any tariff structures put in place to provide a **fair opportunity for cost recovery** taking into account any previous imposition of remedies by a national regulatory authority. In so doing, the dispute settlement body should also **take into account the impact of the requested access on the business plan of the access provider, including the investments made by the access provider to whom the access is requested, in particular investments made in the physical infrastructure to which the access is requested.**”³⁴*

The BCRD emphasises access pricing based on cost recovery while also considering “*the impact of the requested access on the business plan of the access provider*”.³⁵ Some regulators interpret this clause as permitting the access provider to factor in the “opportunity cost” – that is, lost profits compared to an alternative use – of providing access in the access price. Ofcom addresses this interpretation in its guidance. Ofcom explains that in resolving disputes it will consider the relevance of impacts going beyond those in the physical infrastructure used and specifically notes the relevance of opportunity cost such as the effect on retail investments by the access provider (if they are a network provider), or own-use for non-telecoms infrastructure.³⁶

The inclusion of opportunity cost illustrates how FRAND principles can be tailored to achieve additional regulatory goals beyond

merely curbing market power. While certain network infrastructure owners may lack traditional market power, they might still have insufficient incentives to grant access to their infrastructure especially if so doing may not be a priority. Hence, some form of obligation may still be necessary to fulfil a specific policy objective, such as promoting network roll-out or fostering increased competition.³⁷

However, a strict mandatory access at cost approach could lead to the misappropriation of commercial assets, thus being disproportionate to regulatory objectives. By considering the opportunity costs of providing access within the framework of FRAND principles, it can become feasible to achieve regulatory goals in a more balanced and proportionate manner in particular absent a finding of market power.

EU Digital Markets Regulation also reflects the dual purpose of FRAND

FR pricing has been adopted in a raft of different legal provisions in the EU, which aim to address the issues that arise in digital markets. These provisions include the Digital Markets Act (“**DMA**”), and the EU Data Act. The objectives of FRAND in these acts differ. In some cases, as in the DMA, the objective is to address market power (and address economic efficiency objectives). In other cases, such as the EU Data Act, FRAND applies on a much wider basis, including to firms without market power, with the aim of achieving wider policy goals.

As in the communication sector, FRAND has been imposed both in circumstances:

- a. Where there is **enduring market power**, such as the DMA; and
- b. Where there is **no enduring market power**, as in the EU Data Act.

Where there is enduring market power, value matters and comparables will have a role to play (where available)

Both the DMA and UK digital regulation adopt a value-based approach to assessing FRAND prices, with the aim of curtailing market power.

The Digital Markets Act

The DMA was created to address the growing market power of large digital platforms. While these firms and their conduct would always be subject to A102 TFEU, there has been a growing concern that digital platform markets are subject to strong network effects and market tipping. This makes it likely that once a firm has achieved market power, it will be less likely to be disciplined by market forces. Furthermore, the pivotal role that such platforms play across numerous market sectors means that they act as “gatekeepers”, determining how other businesses can reach end consumers.

The DMA aims to address the conventional competition policy goals of preventing:

- a. **Exploitative behaviour**, such as whether the terms charged to business users to reach end users are too high; and
- b. **Exclusionary behaviour** (foreclosure of competitors either to the platform itself and/or leveraging into related markets).

Moreover, the DMA has additional policy goals of fairness and promoting competition. This goes beyond traditional competition law aimed at anti-competitive behaviour and into regulation aimed to promote competition. Overall, this is not dissimilar to communications sector regulation as set out above.

Article 6(11) requires gatekeepers to offer FRAND access to search engine data. This is to foster contestability of search engines as a core platform service (“**CPS**”). This includes access to “*ranking, query, click and view data*” for other search engines so that they “*can optimise their services and contest the*

relevant core platform service".³⁸ This provision is a reaction to the powerful network effects and the key role of data in search engines, which reinforce the market position of the leading firm, making it difficult for smaller challengers to compete in providing the same digital activity. Access to search data is identified as the relevant entry barrier. As in ex-ante communications sector regulation, regulated access for competitors is identified as the solution. As the data is non-rival in consumption (i.e. both gatekeepers and entrants can use the data without compromising the use by the other), access for third parties does not reduce the quality of service by the gatekeeper, but can have an impact on investment incentives into rival platforms as well the services delivered over them.

Article 6(12) is concerned with fairness and contestability of the CPS, including app stores, search engines and social networks. It requires gatekeepers in certain CPSs (app stores, search engines and social networks) to offer business users general conditions of access on FRAND terms. Recital 62 further clarifies that:

- a. Gatekeepers should provide access to a dispute settlement mechanism that is "easily accessible, impartial, independent and free of charge for the business user";
- b. Pricing or other general access conditions "should be considered unfair if they "lead to an imbalance of rights and obligations imposed on business users or confer an advantage on the gatekeeper which is disproportionate to the service provided". Furthermore, they state that conditions that "lead to a disadvantage for business users in providing the same or similar services as the gatekeeper" or conditions that "lead to unjustified differentiation" would be unfair.³⁹
- c. Benchmarks can "serve as a yardstick to determine the fairness of access conditions".⁴⁰ The DMA recitals also suggest that there may be benchmarks to assess the fairness of conditions. These

include: (i) the terms for the same or similar services by other providers, (ii) terms imposed by the provider for related or similar services, or to different types of end users, (iii) terms imposed by the provider for the same service in different geographic regions and (iv) terms imposed by the provider for the same service the gatekeeper provides to itself.⁴¹

The principles-based nature of this provision means that in theory it could apply to a wide variety of practices by the gatekeepers. However, many specific practices such as self-preferencing, anti-steering provisions or rules preventing side-loading are also covered by other specific DMA provisions and so may not need to be investigated under FRAND rules. The Commission's first investigations into Alphabet, Apple and Meta for non-compliance cite other DMA provisions, even though Article 6(12) could also arguably address the concerns.⁴² This suggests a prioritisation whereby, where specific practices can be clearly defined, the Commission addresses the issue directly with a specific prohibition or obligation, and FRAND is then used to capture other practices.

It is worth noting that the current European Commission investigation into Apple's new fee structure and other terms and conditions for alternative app stores and the distribution of apps from the web (sideloading) could indicate that a determination of access charges compliant with the provisions of the DMA may well still be required, even if Article 6(12) may only be engaged once the meaning of Article 5(4) is clarified. Article 5(4) states that the gatekeeper shall "*allow business users ... to communicate and promote offers, including under different conditions, to end users acquired via its core platform service or through other channels ... free of charge*". However, as it does not explicitly state whether or how much the gatekeeper may charge a business user when they first acquire the customer, a charge may still need to be determined where the business users acquire customers via a gatekeeper's CPS.

Applying the provisions is likely to prove a challenging exercise. Concerns of both exclusionary and exploitative behaviour have been raised in relation to app store pricing and what is fair and reasonable can depend on which concern is paramount. Software application stores may charge a fixed fee to list the app and require business users to agree to other terms and conditions. However they also charge a commission based on the revenues earned by the business user (usually on sales of digital goods). It may be tempting to argue that the price for access should be limited to a fixed fee to list the app. However, that may affect many apps which do not earn any revenues, reducing rather than increasing choice for end users.

Furthermore, search engines and social networking services may have entirely different business models from app stores. Search engines for example typically do not require business users to pay a fixed fee for access, but they do monetise the platform via the revenues they generate selling ad spaces. Consequently, there may only be an implicit price for access, one that is dependent on the price paid for advertising slots and the degree of competition amongst the business users.

With regard to price levels, the DMA proposes an approach that appears similar to that used with regard to the pricing of SEPs. Prices are considered unfair if they “lead to an imbalance of rights” or “confer an advantage” which is “disproportionate to the service provided by the gatekeeper”.⁴³ However, beyond suggesting that the Commission could consider the service provided by the gatekeeper, including whether the share of total value of the service taken by the gatekeeper is “disproportionate”, there is currently little indication as to how this will be assessed. We note below that in the UK, the Competition and Markets Authority (“CMA”), has indicated that it may adopt a similar approach, which could result in prices that are positive, zero or even negative if platforms are considered to derive significant benefits from hosting the service in question.

Recital 62 of the DMA also suggests that benchmarks could be used to ascertain what the gatekeeper would charge for the service if it were not a gatekeeper or whether the share of value taken by the gatekeeper is FRAND. However, the benchmarks will only be effective if they are sufficiently comparable to the gatekeepers’ charges.

For benchmarks, the key issues that must be determined are the same as in SEPs – that is, the dimensions of comparability or the characteristics of the benchmark that make it “similarly situated” to the case at hand. Factors that may be considered when assessing comparability include (a) the value of the CPS, (b) the use of the CPS, (c) the nature of the business user, (d) the business model of the gatekeeper, and (e) other terms and conditions, such as alternative forms of compensation.

In particular, it may be that there are no suitable benchmarks, as competing app stores, search engines and social networking services are often also gatekeepers and therefore not a suitable benchmark for what occurs without market power. Moreover, competing services often set their own access terms based on what the gatekeepers are charging themselves, so this does not provide a useful benchmark.

It is notable that one of the benchmarks cited is “the prices charged or conditions imposed by the provider of the software application store for the same service the gatekeeper provides to itself.”⁴⁴ In such cases, exclusionary behaviour in related markets would be the concern. As there is often no explicit price for internal transfers within a group, in practice this may mean a “retail-minus” or “no margin squeeze” requirement similar to that used in telecoms regulation, albeit with the added complexity of:

- **A high ratio of common costs to fixed and variable costs** – similar in concept to the issues Ofcom grappled with when it considered access to Sky’s television platform. This included how common costs should be recovered from different

users of the platform, including the platform's own services and rivals pointing to value as a highly relevant concept.⁴⁵

- **The two-sided nature of platforms**, and the interaction of demands from both sides of the market. It is evident that in many instances, the gatekeeper does not directly charge end users for the service (other than through the use of their data), generating revenues solely from business users. Consequently, there is a value addition from both sides of the transaction, which may need a “net-off” to obtain an access price.
- **The value provided by business users**, in particular the extent to which gatekeepers benefit from the presence of business users and what payment, if any, may be appropriate from the gatekeeper to the business user.

UK digital regulation: draft guidance on platform publishers

Although UK digital markets regulation lags behind the EU DMA, there are some initial indications of how “fair and reasonable” prices for digital platforms will be assessed. This includes the mutual value each side of the market transactions gets from it and the value it receives. In 2022, the CMA and Ofcom published advice to government on what conduct regulations could look like for relations between digital platforms and news publishers.⁴⁶ The advice indicated that content providers should be entitled to “fair and reasonable compensation” for the use of their content by digital platforms that have been designated with Strategic Market Status (“**SMS**”).⁴⁷ This would entail that “fair and reasonable prices” involve the platforms paying publishers for hosting their content, rather than publishers paying platforms for access.

To determine whether terms are “fair and reasonable”, the CMA’s advice suggests that the joint value created by hosting news content on platforms should be estimated, with content providers receiving a fair share

of this joint value for use of their content by the SMS firm. The advice proposes that a “broad view” of the value is created, including benefits from increased data on end users as well as the direct benefits from advertising placed around the news content.

When assessing the fair share to content providers, the advice stated that:

“A ‘fair share’ would be one which reflected the split that would be likely to occur if the SMS firms did not have significant bargaining power. The question that should be asked is, if there weren’t a significant imbalance of bargaining power, what share would the platforms keep and what would the publishers receive?”⁴⁸

However, as with FR under the DMA, there will be significant challenges in implementation.

- a. First, calculating the total value created by hosting news on digital platforms will be challenging. Although digital advertising revenues may be comparatively straightforward to calculate, the advice suggests that “a broad view” of value should be used which can include benefits to the platform from the data obtained about end users and indirect benefits. Such an expansive approach will undoubtedly be contentious.
- b. Second, the advice suggests that the joint value should include only the incremental benefits from the content. This would involve assessing what revenues both providers may have obtained anyway, and which are truly incremental to the content.
- c. Third, determining “a fair share” will undoubtedly be contentious. The CMA guidance sets out some indicative principles, including whether the share to content providers is an improvement on the status quo (which the CMA considers likely to be distorted by excessive buyer power); whether it covers the reasonable incremental costs of the content provider and reflects its overall contribution to the creation of joint value; and whether the

split results in excess profitability for the SMS firm.⁴⁹

One way to ease these implementation challenges is the use of final offer arbitration. The CMA advice suggests that arbitration would be a preferable alternative to administrative enforcement.⁵⁰ It notes that arbitration can be less costly and faster, and in particular, cites the potential advantages of final offer arbitration, which requires each side to submit a “final” offer which the arbitrator chooses between. Rather than imposing their own view of FRAND, the arbitrator has to decide which offer is closest to FRAND. Final-offer arbitration is considered to have positive incentive properties. As an unreasonable offer is likely to be rejected in favour of the other party’s proposal, each side has an incentive to make reasonable offers, reducing the need to go to arbitration.⁵¹

The Data Act: imposing FRAND without market power

FRAND obligations are also imposed on digital markets in circumstances where there is no market power. The EU Data Act⁵² establishes uniform regulations governing fair access to and use of data (including, but not limited to, personal data) by “users”, which, under the Act, encompasses consumers and business users. The Act primarily aims to allow end users to access the data they generate when using a connected device and to share such data with third parties for the purpose of providing aftermarket or other data-driven information services. It also gives third-party firms the right to receive data from the service provider in certain circumstances on FRAND terms.

The FRAND terms imply that the data itself effectively be provided for free: the price is zero, plus the transaction costs of actually making it available. However, there are some important caveats to this. The Data Act states that it “*adapts rules of contract law and prevents the exploitation of contractual imbalances that hinder fair access to and use of data*”.⁵³ In the case of data recipients being

micro, small and medium-sized enterprises (“MSMEs”) or non-profit research organisations, any compensation agreed shall not exceed the costs directly related to making the data available (and which are attributable to the request).⁵⁴

However, for other enterprises, a margin is allowed which can take into account “*investments in the collection and production of data, where applicable, taking into account whether other parties contributed to obtaining, generating or collecting the data in question*”.⁵⁵ The Act states that this compensation is to “*to promote continued investment in generating and making available valuable data*” but that such “*compensation should not be understood to constitute payment for the data itself*”⁵⁶; and “*should not discriminate between comparable categories of data recipients, including partner enterprises or linked enterprises of the data holder*”.⁵⁷

The apparent requirement under the Data Act that data should be provided for free raises a number of concerns.

In many markets, data is a valuable asset that is collected and combined as a result of innovation and investment. As such, it can be a source of legitimate competitive advantage. However, where there is no market power, making data available to all with no payment for the data itself risks undermining the economics of some services. This is likely to be particularly acute where innovative services are enabled by significant investments in the infrastructure (including devices, networks, IT platforms and software). One such example is machine-to-machine applications employed in manufacturing processes including supply chain monitoring and smart cities but also agricultural monitoring, all of which rely on significant sunk investments enabling the collection, combination and use of data. Requiring this data to be available to others who have not incurred the required investment risks undermining business models and innovation, and ultimately harming consumers.

The EU Data Act does at least suggest that *“this Regulation aims to avoid undermining the investment incentives for the type of connected product from which the data are obtained, for instance, by the use of data to develop a competing connected product which is considered to be interchangeable or substitutable by users, in particular on the basis of the connected product’s characteristics, its price and intended use”*. In terms of whether *“a connected product competes with the connected product from which the data originates depends on whether the two connected products are in competition on the same product market. This is to be determined on the basis of the established principles of Union competition law for defining the relevant product market.”*⁵⁸

In this case, we consider that FRAND should take into account the full opportunity cost to the firm of making the data available, including the impact on its business model. Although data is typically “non-rival” in consumption, such that the use by one individual of data does not impact on the ability of another to use it, requiring a key competitive asset resulting from material investments and innovation to be shared may impact not just on the viability of the business model in question, but also make it less likely that firms will make similar investments in future.

The Commission is expected to issue guidelines in the coming year on the interpretation of FRAND prices in this context. Additionally, one or more certified Dispute Settlement Bodies are to be established in an EU Member State. It will be interesting to see how it will do so coherently with long-standing concepts of competition law. In particular, it will be important to understand how it will explain why established thresholds for protecting consumers through economic efficiency (dynamic and static) are deprioritised over other objectives, including giving extra protection to SMEs. It will also be important to understand how it will address interventions to “grease” the ability of users (consumers and businesses) to switch

between online service providers, including cloud providers, through greater ease in porting their data.

It is hoped that there will be a mechanism by which logical coherence and consistency between the rulings of the different dispute settlement bodies will be ensured. Regulation can help create markets but only if it provides for regulatory certainty and stability, which in turn requires it to have firm principles at its core.

What does this mean for FRAND prices?

In this paper, we have surveyed the use of FRAND in a number of different sectors and to achieve different objectives. In contrast to other approaches used to address market power (such as cost-based approaches in traditional access regulation), FRAND places a greater emphasis on the need to preserve investment incentives and innovation, rather than short-term consumer welfare. It is likely to be appropriate in cases where innovation and investment are important and where investment occurs (or has occurred) under conditions of competition.

It is evident that there is no single approach to determining FRAND prices. Instead, FRAND prices in any given instance must reflect the objectives underlying the relevant laws and regulations. It is crucial for regulators to ensure that their approach to FRAND is consistent with their ultimate regulatory objectives and proportionality. In particular, where a firm does not have a dominant position or enduring market power, we consider that the full opportunity cost to the firm of providing access on FRAND terms should be taken into account.

We have put together an initial framework that classifies FRAND objectives and the resulting approaches to setting a price. We propose that where FRAND is used to address sustained market power, a value-based approach is likely to be appropriate. This could be achieved through:

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- a. a “retail minus” approach that ensures downstream users of the firm’s product are able to profitably compete;
 - b. benchmarking against comparable products without market power; and/or
 - c. the share of value taken by the firm and how it relates to the share of the value it creates.

In practice, retail minus approaches may be challenging to implement in the presence of network effects and the presence of high common costs. As a result, in relation to online platforms, it is most likely that benchmarking and share of value approaches will prove useful.

When determining FRAND prices, authorities should also balance the desire to increase competition using the FRAND asset, while retaining the incentives to invest in creating those assets in the first place. Regulation that fosters competition downstream can also risk entrenching upstream market power if it reduces the incentives to invest. Authorities should therefore consider how the approach to FRAND relates to the business model of the firm. Where the firm would, in any event, invest in the upstream asset without providing access, the risk to investment may be lower.

FRAND can also be used in cases where firms do not have market power to achieve wider regulatory objectives, such as incentivising the use of assets or facilitating access to data. As this regulation is in competitive markets, it should be used sparingly and with caution. In such cases, FRAND should take into account not only the cost of providing access, but also the opportunity cost to the firm of doing so to avoid appropriation of private investments.

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views of the authors only and should not be taken to represent the views of BT, Compass Lexecon or their
respective management, subsidiaries, affiliates, employees or clients.

2 We note that sometimes the obligation is “fair, reasonable and non-discriminatory” and sometimes “fair and
reasonable”. As we are addressing only the “fair and reasonable” aspect of pricing, rather than non-
discrimination, we cover the use of “fair and reasonable” in both contexts.

3 *Innovatio IP Ventures, LLC Patent Litigation*, MDL Docket No. 2303 Case No. 11 C 9308, page 73.

4 *Unwired Planet v Huawei* High Court Judgment; *InterDigital v Lenovo* High Court Judgment; *Optis v Apple*
High Court Judgment

5 Some factors that may be considered when assessing comparability include: (a) the technological complexities
of the standards, (b) the SEPs or SEP portfolios; (c) the licensed products; (d) the royalty structures; (e) the
identity of the licensees and their position in the product markets where they operate (whether they are
“similarly situated”); (f) other licence terms, such as the term of the agreement and geographical coverage, or
the existence of cross-licences or other forms of compensation; (g) the comparable rate falls in a similar
timeframe, etc.

6 Report of the SEPs Expert Group to the European Commission, 2021, page 104 - 111. Available at
<https://ec.europa.eu/docsroom/documents/45217>, last accessed 21 May 2024.

7 If these are made prior to the standard being set, they may be considered sufficiently ex-ante to form an
estimate of the true aggregate royalty. Of course, statements made after standardisation are more likely to be
considered opportunistic.

8 For example, in valuing 5G technologies, some commentators may consider the aggregate royalty for 4G as
one in a number of proxies.

9 Typically, technologies are implemented in an intermediate product, which may then be included in a final
product that is sold to the end consumers. For example, cellular technologies may be implemented in the
baseband chip, which is then incorporated into a cellular device. The baseband chip may be considered the
SSPPU as it is the smallest unit that implements the standard and is traded in the market.

10 See *Re Optis v Apple* (2023) EWHC, 1095 (ch), [222c]. The proponents in favour of this argue that royalties
should be charged to the SSPPU manufacturer and should be bound by its profits as that is the maximum
margin available for it to pay royalties from. However, others have argued that the profits of the SSPPU (or
indeed any other type of) manufacturer should not be a ceiling for the royalties because if those manufacturers
pay royalties, they will also have the incentive to increase the prices of their products. Therefore, an increase
in royalties, like any other input, is in part passed down to the final consumer in the form of a higher price, and
as such the profits of the SSPPU should not represent a ceiling for the aggregate royalty.

11 Report of the SEPs Expert Group to the European Commission, 2021, page 108 - 109. Available at
<https://ec.europa.eu/docsroom/documents/45217>, last accessed 21 May 2024.

12 There is also a ‘present value-added approach’, which is a form of top-down approach that relies on the results
of the comparables assessment. In this approach, first the incremental value of the technologies is calculated
based on hedonic regressions or choice modelling methods, and then the results from the comparables
assessment along with a model of the market structure are used to estimate the proportion of the incremental
value that is attributed to the various stakeholders in the market (i.e., the licensors, the implementers and the
consumers).

13 [Regulatory framework for electronic communications | EUR-Lex \(europa.eu\)](#), specifically Directive 2002/20/EC
or ‘Authorisation Directive’; Directive 2002/19/EC or ‘Access Directive’; Directive 2002/22/EC or ‘Universal
Service Directive’; Directive 2002/58/EC or ‘Directive on privacy and electronic communications’; Regulation
(EC) No 1211/2009 establishing a Body of European Regulators for Electronic Communications (BEREC);
Regulation (EU) No 531/2012 on roaming on public mobile communications networks and Directive (EU)
2018/1972 the European Electronic Communications Code.

14 Directive 2002/20/EC (Authorisation Directive) and Directive 2002/19/EC (Access Directive)

15 Richard Feasey (2024), [Competition in FTTP networks.pdf - Google Drive](#). In the UK this approach was
 16 facilitated by a concept called the ‘Fair Bet’, a commitment device to ensure investors can trust that regulation
 will not expropriate returns for long-term sunk investments that go well, while also carrying significant downside
 demand and cost risk.

17 Retail minus works when there is a degree of end-to-end competition, for example if the incumbent faces
 competition from cable networks; or where retail products based on one access technology (e.g., fibre
 broadband compete with other technologies such as copper-based broadband); or as in the UK today, where
 there is end-to-end competition by an established player.

18 Ultimately any wholesale charge control even if ‘only’ applied to one firm, will curtail the returns of all firms
 competing in the same market end to end (e.g. in the UK BT, Virgin Media/O2 and alternative FTTP builders
 ‘Altnets’) as the lower the wholesale price, the lower prices in retail markets. In turn, this reduces market prices
 and hence total revenues for all network providers.

19 With regard to the latter, Ofcom opted for a framework it called the ‘fair bet’ combined with ‘anchor pricing’
 whereby it made a commitment not to charge control higher speeds at cost for an extended time period to
 ensure that investors have the opportunity to earn an upside commensurate with the downside risk they took
 when taking the decision to invest.

20 See for example, Ofcom 2021, Wholesale Fixed Telecoms Market Review, WFTMR
 ([https://www.ofcom.org.uk/____data/assets/pdf_file/0024/216087/wftmr-statement-volume-3-non-pricing-remedies.pdf](https://www.ofcom.org.uk/__data/assets/pdf_file/0024/216087/wftmr-statement-volume-3-non-pricing-remedies.pdf)), para. 3.25-3.27, Ofcom 2017 Narrowband Market Review, 7.60-7.87 and Ofcom 2010 Review
 of the WLA Market ([wla_statement.pdf \(ofcom.org.uk\)](#)).

21 Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing
 the European Electronic Communications Code (‘EECC’), recitals 26-28 and recital 198.

22 See CERRE: [cerre_implementing_co-investment_and_network_sharing-26.05.2020.pdf](#)

23 Directive (EU) 2018/1972, Art 5, “d) contributing to the protection of end-user rights in the electronic
 communications sector, in coordination, where relevant, with other competent authorities”

24 Directive (EU) 2018/1972, establishing the European Electronic Communications Code, Recitals 18, 144-145
 Broadband Cost Reduction Directive, 2014/61/EU.

25 A conditional access (“CA”) service enables a broadcaster to restrict access to content that it has made
 available on a digital platform only to those customers that have been authorised to access it; critical in
 particular for copyrighted material generally and paid for content specifically. TPS services also include for
 example listing in the Electronic Programme Guide (EPG) and interactive tv services amongst others.

26 Article 6 of the Access Directive, and extended in 1.2 Article 5 (1) (b) to also cover other facilities in digital
 broadcasting, such as Electronic Program Guides (EPGs) and Application Program Interfaces (APIs).

27 [Directive \(EU\) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing
 the European Electronic Communications Code \(Recast\)Text with EEA relevance. \(europa.eu\)](#), Annex 2 Part
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28 When considering where market power applies, the ‘three criteria test’ provides a useful framework. These are
 markets characterised by high and non-transitory barriers to entry, no tendency toward effective competition
 and the relative (in)efficiency of ex post competition law.

29 Ofcom 2005, paragraph 6.17

30 Ofcom (2006), Statement: Provision of Technical Platform Services, [Microsoft Word - TPS Statement TO PDF
 210906 \(ofcom.org.uk\)](#)

31 Broadband Cost Reduction Directive, 2014/61/EU.

32 Broadband Cost Reduction Directive, 2014/61/EU.

33 Broadband Cost Reduction Directive, 2014/61/EU, Article 3(4).

34 Broadband Cost Reduction Directive, 2014/61/EU, recital 19

35 Broadband Cost Reduction Directive, 2014/61/EU, Article 3(5).

36 [Ofcom \(2016\) Guidance under the Communications Access to Infrastructure Regulations](#), paras 5.22-5.28.

37 This could be because the infrastructure owner’s business model may primarily relay on other revenue streams
 and the incremental revenue source from granting access is small, or because they fear some cannibalisation
 of existing revenues could indeed result from giving access.

38 DMA, Recital 61 and Art.6

39 DMA, recital 62.

40 DMA, recital 62.

41 DMA, recital 62.

42 Commission press release, Commission opens non-compliance investigations against Alphabet, Apple and
 Meta under the Digital Markets Act, 25 March 2024.

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- 43 DMA, Recital 62.
- 44 DMA, recital 62.
- 45 Going back to the concept of Ramsey pricing as a (social) welfare optimising approach, originally applied to taxation: Ramsey, Frank P. (1927). "A Contribution to the Theory of Taxation". The Economic Journal. 37 (145): 47–61.
- 46 <https://www.gov.uk/government/publications/advice-to-dcms-on-how-a-code-of-conduct-could-apply-to-platforms-and-content-providers>.
- 47 Ibid, para. 5.3.
- 48 Ibid, para. 5.37.
- 49 Ibid para. 5.38.
- 50 Ibid para. 6-7-11.
- 51 For an explanation of the benefits of final offer arbitration, see Rod Sims (2022), "Instruments and Objectives; explaining the News Media Bargaining Code", Australian National University.
- 52 Regulation of the European Parliament and of the Council on harmonised rules on fair access to and use of data and amending Regulation (EU) 2017/2394 and Directive (EU) 2020/1828, <https://data.consilium.europa.eu/doc/document/PE-49-2023-INIT/en/pdf>
- 53 Data Act, recital 5.
- 54 The Data Act also provides for the EC to develop and recommend non-binding model contractual terms for business-to-business data sharing to be to help to conclude transparent and FRAND data transfer contracts (distinct from model contracts under EU GDPR).
- 55 That said, volume discounts and similar appear to be allowed (ibid)
- 56 Data Act, recital 46.
- 57 Data Act, Chapter III, Article 8(3).
- 58 Data Act, recital 32