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# Intermediation power, aftermarkets and mobile ecosystems: the Apple app store litigation

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## Abstract

Digital platforms often perform intermediation roles and control an ‘ecosystem’ of interdependent products or services on multisided markets. Market power can arise through the control of narrow proprietary ‘walled gardens’ where there are direct and indirect network effects, high switching costs, little multi-homing, information asymmetries and a high degree of consumer loyalty or inertia. This can give rise to a form ‘economic dependency’ which allows exploitation over an ‘installed base’. These ecosystems may or may not be defined as separate markets under traditional competition law but can be subject to ‘intermediation power’. Like an aftermarket, this ‘lock in’ on one side of the market can co-exist with a high degree of competition on the other side of the market. The paper will explore some of these issues in the context of current competition law actions in the EU, US and elsewhere concerning the fees and restrictive conditions imposed for in-app purchasing on smart phones and tablet devices on the Apple app store.

**Keywords:** intermediation power, aftermarkets, antitrust, digital platforms, in-app mobile purchasing

**JEL Classification:** K210

## 1. Introduction

The extraordinary growth of digital platforms and companies such as Google (Alphabet), Apple, Facebook (Meta), and Amazon have revolutionized the way businesses and consumers transact. In January 2022 these companies collectively had more than \$US 7 trillion in market capitalisation and Apple became the first publicly-traded company to reach a market value of \$US 3 trillion (CompaniesMarketCap.com, 2022; Nicas, 2020). These platforms have the potential to entrench their market power through network effects and vertical integration which can create the incentive and opportunity to ‘self-preference’, leverage into, and colonize adjacent conglomerate markets within the same ‘eco-system’.

One increasingly important area of innovation and form of monetization in the digital economy is the development of apps for smart phones and tablet devices. These apps are becoming indispensable sites for consumers to access services, e-commerce, games and information. Apps are largely only accessible on smart phones through ‘app stores’ on a particular smart phones’ operating system. These app stores generally operate as ‘walled gardens’ where access is regulated by restrictive terms and conditions. These issues are central to the current antitrust actions in the EU, US and elsewhere concerning the fees and restrictive conditions for in-app purchasing on smart phones and tablet devices on both the Apple app store using iOS (and iPadOS) operating systems, and Google Play using Google’s Android operating system. One central antitrust issue in these cases is whether a narrow single brand market within an ‘digital ecosystem’ intermediated by a digital platform can be subject to ‘monopolization’.

There is an ongoing debate in global competition law jurisdictions about the adequacy of current competition laws to deal with the challenges of the abuse of power and data in the digital economy (Crémer Report, 2019; US Subcommittee on Antitrust, 2020) While these debates have increasingly led to proposals setting out sector-specific regulation and the imposition of *ex ante* obligations on ‘gatekeepers’ (Digital Markets Act, 2020), this paper examines some aspects of the Apple litigation through the lens of traditional competition law analysis.

## 2. The Apple ‘App Store’ litigation

Apple is the sole distributor of apps on iOS and prevents iOS users from downloading any apps from any source other than Apple’s own storefront, the App Store. Apple requires all in-app purchases to be made exclusively via Apple’s own proprietary In-App Purchase (IAP) system and charges app developers a 30% commission. Apple also restricts developers from informing users of alternative (usually cheaper) purchasing possibilities outside of the app (‘anti-steering provisions’). It is argued that these excessive prices and restrictive conditions mean that iOS developers are discouraged from innovating and are forced to increase prices to app users.

These restrictive conditions have led the European Commission, in response to a complaint by the music streaming service Spotify, to submit a ‘Statement of Objections’ to Apple for abuse of dominance under Article 102 TFEU in the market for the distribution of music streaming apps through its App Store (Statement of Objections, 2021). In the US, Epic, the creator of the popular online video game Fortnite, has sought an injunction against Apple in the Californian District Court (*Epic v Apple*, 2021; Epic Findings of Fact, 2021; Apple Findings of Fact, 2021). Epic added its own direct payment processing option as an alternative for in-app purchases made by users of Fortnite on iOS devices and offered a 20% reduction

on IAP prices. In response, Apple removed Fortnite from its App Store (Paul and Sweney, 2020).

It is not intended to discuss all the possible antitrust claims that may arise in these ongoing EU and US cases but to consider the issues arising from market definition and market power and two possible theories of harm: the possibility in the EU of an action for unfair or excessive pricing and the treatment of the anti-steering provisions in the US *Epic* litigation (see Geradin and Katsifis, 2021). As the EU case is only at the ‘Statement of Objections’ stage this paper draws on some of the factual findings by the US District Court (California) in the 2021 *Epic* decision. Epic claimed the exclusivity and anti-steering provisions amounted to maintenance of a monopoly and denial of an essential facility in the iOS App distribution market and the market for in-app payment processing on iOS devices under s2 Sherman Act and unreasonable restraint of trade and tying under s1 Sherman Act. A claim for ‘excessive pricing’ is not actionable in the US because, the Supreme Court stated in *Trinko*, ‘[t]he mere possession of monopoly power, and the concomitant charging of monopoly prices, is not only not unlawful; it is an important element of the free-market system’ (*Verizon v Trinko*, 2004, p. 294). It has been argued however that the fee could amount to a failure to provide access under ‘just and reasonable terms’ in the US under the essential facility doctrine (*Kotapati et al.*, 2020, pp. 27–28).

### **3. Market definition, market power its relationship to intermediation power**

In its ‘Statement of Objections’ the European Commission made a preliminary finding that Apple has a dominant position in the market for the distribution of music streaming apps through its App Store. The Commission claims that the fees and mandatory use of the IAP distorts competition for the distribution of music streaming apps because music streaming apps compete with Apple’s music streaming app ‘Apple Music’. But a market for music streaming apps within the App Store would seem to be a particularly narrow market. In the US *Epic* decision Apple had argued for a broad market of all digital game transactions (including console gaming on Xbox, PlayStation and cloud-based streaming) because users tend to multi-home and in this case play Fortnite on more than one device (*Epic v Apple*, 2021). The presence of multi-homing and the rise of cross-platform gaming services such as cloud-based streaming services places competitive pressures on platforms providing gaming app transactions and potentially lowers barriers to entry (*Epic v Apple*, 2021, pp. 64, 94). As they are not tied to a single device, gaming through web-browsers and on multi-platforms can operate as a form of middleware and threaten the monetization of gaming app transactions. This may explain Apple’s refusal to remove the App Store’s restrictive conditions.

The US District Court rejected Apple's broad market definition however and found a 'market for digital mobile gaming transactions' where Apple had 52-57% market share (*Epic v Apple*, 2021, p. 137).

Gaming apps are highly profitable and crucial to Apple App Store's revenue. According to Apple's internal records and evidence at the US *Epic* trial, 83% of the apps on the App Store in 2019 were free (Epic Findings of Fact, 2021, p. 32). These are monetized through the 'freemium model' where the initial download is 'free' but revenue comes from in-app purchases or payments for upgrades. In 2016, despite accounting for only approximately 33% of all app downloads, game apps accounted for 81% of all app store billings that year (Epic Findings of Fact, 2021, p. 43). In 2017 gaming revenues overall accounted for 76% of Apple's App Store revenues (Epic Findings of Fact, 2021, p. 43).

There is a competitive market for the downloading of apps through iOS or Android devices or through other sources such as the app developer's webpages. There is also an increasing duopoly in the smart phone market of Android and iOS devices. The US Subcommittee on Antitrust found that:

...both Apple and Google have durable and persistent market power in the mobile operating system market; iOS and Android run on more than 99% of mobile devices in the U.S. and globally. There are high switching costs in the mobile operating system market and high barriers to entry. (Subcommittee on Antitrust, 2020, p. 94, cf pp. 102–105).

A central issue in these cases however, which has important ramifications for the application of antitrust to digital markets generally, is whether a narrow single brand market (the Apple App Store), within an 'digital ecosystem' intermediated by a digital platform, can be a relevant market for antitrust purposes.

The iOS App distribution market operates as a two-sided market comprising app users and app developers where there are strong indirect network effects. There is a positive feedback loop, where users prefer an app store where they can access a large number of apps and app developers wish to write for a platform that has a number of app users (Geradin and Katsifis, 2021, pp. 510–11). The iOS user base is particularly desirable to app developers because there are more than one billion iPhone users (1.5 billion active iOS devices, including both iPhones and iPad) and these users are found to spend twice as much money on apps than Android users, making them an indispensable trading partner for app developers (Epic Findings of Fact, 2021, p. 64).

Apple, as a gatekeeper which sets the conditions for access to an indispensable network for software developers means that there is no competition in the iOS app distribution market and the iOS In-App Payment Processing Market. In performing this gatekeeper role, Apple exercises a form of intermediation power.

Digital platforms, depending on the business model, perform intermediation roles and control an ‘ecosystem’ of interdependent products or services on multisided markets. Market power can arise through the control of narrow proprietary ‘walled gardens’ where there are direct and indirect network effects, high switching costs, little multi-homing, information asymmetries and a high degree of consumer loyalty or inertia. This can give rise to a form ‘economic dependency’ which allows exploitation over an ‘installed base’. The EU Cr mer Report explains:

It is a commonplace in the economics of two-sided platforms that there can be market power even in an apparently fragmented marketplace. . . This kind of market power – which is linked to the well-known competition law concept of “unavoidable trading partner” and has, with a view to platforms, sometimes been called intermediation power – is compatible with fierce competition on the “monopolistic side”. (Cr mer Report, 2019, p. 49).

The ability to charge ‘excessive prices’ and extract data in these circumstances was identified by the US Subcommittee on Antitrust:

While a firm in a competitive market would lose business if it charged excessive prices for its goods or services because the customer would switch to a competitor, dominant platforms have been able to charge excessive prices or ratchet up their prices without a significant loss of business. Similarly, certain dominant platforms have been able to extort an ever-increasing amount of data from their customers and users (Subcommittee on Antitrust, 2020, p. 390).

The EU proposed Digital Markets Act (DMA) draws on the term ‘online intermediation services’ to denote the specific services which may be restricted by gatekeepers which place conditions on users, limiting inter-platform contestability (Digital Market Act, 2020, para [26]). The 10<sup>th</sup> Amendment to the German Act against Restraints of Competition (ARC), which came into force on 19 January 2021, embraces the concept of intermediation power directly within competition law to target firms with ‘paramount cross-market significance.’ It includes gatekeepers and intermediaries with conglomerate power that may or may not coincide with dominance.

Instead, the power derives from a net of dependencies from one and the same company and a multi -market influence of that company covering all relevant elements of the ecosystem. (Budzinski, O., *et al.*, 2020, 12).

These legislative solutions specifically acknowledge the complex market power issues that arise from the exercise of ‘intermediation power’ within digital ecosystems but this paper asks whether we must always resort to sector-specific legislation or whether intermediation power can be equivalent to dominance under traditional competition law? We commence this analysis by considering whether the App Store can be a relevant separate market.

#### 4. The monopolisation of an aftermarket

A single brand market, although rare, can be established in antitrust law. In the US Epic argued that the app distribution market (and the payment processing for iOS apps) was an aftermarket, drawing on the analysis of the Supreme Court decision in *Eastman Kodak (Epic v Apple, 2021, p. 44; Eastman Kodak, 1992)*. While there is intense competition in the primary market for mobile devices where Apple competes with non-iOS devices, this can co-exist with ‘lock-in’ and exploitation in an aftermarket. The iOS app distribution market arguably operates as an aftermarket ‘where high prices and other abusive terms are not self-correcting’ (Geradin and Katsifis, 2021, p. 533) and an ‘installed base’ of consumers can be subject to exploitation.

Aftermarket cases concern the sale of original equipment such as a car or a computer in a primary, usually competitive market, together with the sale of complementary goods or services such as software, spare parts or repair services in an interdependent aftermarket. The aftermarket may be narrowly defined and contain proprietary spare parts which are not substitutable with generic parts. The question arises whether a firm can monopolise an aftermarket by raising the price for spare parts, refusing to supply or by tying the sale of spare parts to repair services.

A majority of the US Supreme Court in *Eastman Kodak* held that Kodak, which sold photocopiers and micrographic equipment in the primary market, could monopolise the aftermarket for repair parts and service. Kodak, facing competition from independent service operators (ISOs), had changed its practice of selling repair parts to ISOs. Unable to obtain parts, ISOs were forced out of the market. Kodak argued that it could not monopolise the aftermarket because consumers engage in ‘life cycle pricing’ and take account of the aftermarket prices at the point of purchase of the original equipment. Any attempt to raise price in the aftermarket would be restrained by reputational effects, fall in demand and loss of profits in the original equipment market. A majority of the Supreme Court found that a separate market could exist for the parts or service of a single brand of original equipment (*Eastman Kodak, 1992, pp. 481–482*). Life cycle pricing was considered difficult and costly and its accuracy varied with each consumer. It found that competition in the original equipment market could co-exist with market power in aftermarkets where higher aftermarket prices could more than compensate for lost equipment sales. The Court found that ‘[i]f the cost of switching is high, consumers who already have purchased the equipment, and are thus “locked in,” will tolerate some level of service-price increases before changing equipment brands’ (*Eastman Kodak, 1992, p. 476*). The *Kodak* decision demonstrates that s2 Sherman Act may be used to restrain the charging of higher prices in aftermarkets.

While subsequent US Federal Circuit courts have limited the application of *Kodak* in the US to circumstances where the aftermarket policy has been changed post-purchase of the original equipment (*PSI Repair Services*, 1997; *Newcal Industries*, 2008), the EU has accepted the approach in *Kodak* in a number of decisions under Article 102 TFEU (*Hilti*, 1991; *Pelikan/Kyocera*, 1992; *Digital Undertaking*, 1997; *Info-Lab/Ricoh*, 1999). These decisions recognize that exploitation through the imposition of restrictive conditions and high prices in narrow/proprietary aftermarkets can be abusive.

In *Pelikan/Kyocera*, Kyocera supplied printers in a competitive market together with consumables such as laser replacement toners and repair parts in an aftermarket. Pelikan, which competed in the aftermarket for replacement toners and spare parts, argued that warranties imposed by Kyocera that restricted use of competitor brands in the aftermarket amounted to an abuse of dominance under Article 102. The European Commission found that ‘the market for supply of toners and/or other consumables for printers of a specific brand must be considered a separate market’ (*Pelikan/Kyocera*, 1992, p.54). The Commission, referring to *Eastman Kodak*, found however that dominance and lock-in in an aftermarket was unlikely to occur in that case because a customer

(i) can make an informed choice including lifecycle – pricing... (ii) is likely to make such choice accordingly, and that, in case of an apparent policy of exploitation being pursued in one specific aftermarket, a (iii) sufficient number of customers would adapt their purchasing behaviour at the level of the primary market (iv) with reasonable time (*Pelikan/Kyocera*, 1992, p. 61 (emphasis in original)).

In the US, Epic argued that the App Store distribution market constituted an aftermarket that was subject to exploitation by Apple. Any attempt to increase the price to app developers and for in-app purchasers would not be constrained by competition in the market for smartphones because consumers do not generally engage in ‘life-cycle pricing’ when they purchase a smartphone (*Epic Findings of Fact*, 2021, paras [88], [173]). This is because it is difficult to calculate and compare the lifecycle costs of smartphones. There is often a complicated cost structure that includes the comparison of features, contract length, the mobile service operator and the device cost and these are subject to information asymmetries regarding the price of app distribution (*Epic Findings of Fact*, 2021, paras [88], [173]). The cost of distributing apps is low compared to the overall cost of the phone so that even if consumers had better information it would not likely be a major factor in their choice of mobile phone (*Epic Findings of Fact*, 2021, para [173]). They are unaware at the time of purchase how much they are likely to spend over the life cycle of the device.



Once purchased, iOS device users also face substantial switching costs when they switch to alternate mobile phones with a different operating system such as Android. These costs include data portability, learning costs and loss of compatibility of devices within the Apple ‘ecosystem’. Users of Apple’s devices are also very loyal to the brand with a retention rate of 92% and they do not switch easily (*Statement of Objections*, 2021).

Primary equipment sellers can also benefit from feedback, sales and repair information in the aftermarket ‘as “counting devices” to measure the intensity of customer equipment usage’ (*Eastman Kodak*, 1992, p. 499, per Scalia J (dissenting)). In the same way the ‘the app store’s review service remains an important source of value-added for app upgrades in aftermarkets’ (Cabral *et al.*, 2021, p. 18). But different from the relationship in *Eastman Kodak*, this value flows as much as to the Apple App Store as gatekeeper as much as the app developer (Cabral *et al.*, 2021, p. 18). As Geradin and Katsifis point out the ‘Apple has detailed information, on which apps are successful, and even how much time and money users spend in them. These are commercially sensitive data, which app developers would normally never hand over to their rivals’ (Geradin and Katsifis, 2021, pp. 560–61). To the extent that these provisions also permit Apple to take control of the billing relationship with the consumer they allow unprecedented access to customer data and their purchasing profile The mandatory use of the IAP

...disintermediates app developers from their users, deprives them of the data they could use to improve their products and services, but it also deprives app developers from the innovation and tailor-made solutions that could be brought by providers of other in-app payment solutions. (Geradin and Katsifis, 2021, p. 531).

In the US *Epic* decision Apple rejected the aftermarket theory as non-applicable because single brand market definitions are rare. Apple argued that as it was a two-sided transaction market it must be considered as supplying only one product (Citing *American Express Co.*, 2018, p. 2286 n. 8). The US District Court also rejected the aftermarket theory and found, as previously mentioned, a ‘market for digital mobile gaming transactions’ where Apple had a 52–57% market share. The Court did recognize however that a single brand could constitute a separate market although considered rare (*Epic v Apple*, 2021, p. 127). The Court rejected as artificial the idea of a primary or foremarket for Apple’s iOS operating systems because the operating system is not licensed or sold. Competition exists for smartphones which are more than just an operating system (*Epic v Apple*, 2021, p. 45). The Court was also critical of the evidence presented by Epic to support switching and information costs. Epic failed to prove that users were subjected to high switching costs and were therefore locked-in (*Epic v Apple*, 2021, pp. 48–50). No consumer survey was presented that consumers were unaware of the restrictive

conditions before purchasing the smartphone and the 30% rate had not changed post-purchase (*Epic v Apple*, 2021, pp. 50-51). The Court also took account of Apple's evidence that strongly suggested that low switching between operating systems stemmed from overall satisfaction with existing devices, rather than any 'lock-in' (*Epic v Apple*, 2021, p. 51).

The EU courts have been more willing to find narrow markets in aftermarket cases and in digital markets. In *Google (Android)* iOS was considered to be in a separate market to Android (*Google (Android)*, 2018). Apple's gatekeeper control over the mobile device, iOS, App Store and IAP operates as a 'walled garden' and the Commission stated in its 'Statement of Objections' that 'Apple's devices and software form a "closed ecosystem" in which Apple controls every aspect of the user experience for iPhones and iPads' (Statement of Objections, 2021).

- In a 2021 case concerning the mobile phone and apps market, the French Autorité de la concurrence in *Interactive Advertising Bureau France et al.*, applied the four criteria in *Pelikan/Kyocera* to reject Apple's argument that competition in the primary market for smartphones was sufficient to prevent dominance of an aftermarket. It was possible for lock-in and exploitation to occur in the aftermarket for apps (*Interactive Advertising Bureau France*, 2021, paras [113–115]).
- The French Commission found that a consumer's choice of a mobile device is primarily influenced by price and the expenditure on the purchase of apps is not a determining factor. It was unlikely that users of iOS would switch to an alternate offering on the primary market because of the importance of interoperability within the Apple ecosystem user experience. They were unlikely to switch in light of degradation of the quality of apps in the App Store 'since such a change would imply, for some iOS users, the loss of their investment in Apple's ecosystem. High costs in the event of a change of environment is therefore a strong barrier to switching' (*Interactive Advertising Bureau France*, 2021, para [115]).

## 5. Could the 30% fee amount to excessive pricing?

Could the imposition of the 30% fee amount to an unfair purchase or selling price as an abuse of a dominant undertaking under Article 102 TFEU? The 30% fee may be passed on and result in higher prices to consumers. The European Commission in its 'Statement of Objections' argued that the payment of the fee by Spotify distorts competition with respect to Apple's own music streaming app 'Apple Music'. The *US Subcommittee on Antitrust* noted

[A]pple's monopoly power over app distribution on iPhones permits the App Store to generate supra-normal profits. These profits are derived by

extracting rents from developers, who either pass on price increases to consumers or reduce investments in innovative new services. Apple's ban on rival app stores and alternative payment processing locks out competition, boosting Apple's profits from a captured ecosystem of developers and consumers." (*Subcommittee on Antitrust*, 2020, pp. 339–351; cf p. 345).

In the foundational case of *United Brands*, the European Court of Justice set out a two limb test for 'excessive pricing' (*United Brands*, 1978, p. 248). The first limb asks if the price is 'excessive' and will examine this on the basis that it 'has no reasonable relation to the economic value of the product supplied' (*United Brands*, 1978, p. 250). The Court stated that whether the price is 'excessive' can be determined 'objectively' by 'making a comparison between the selling price of the product in question and its cost of production' (*United Brands*, 1978, p. 251). If the answer to the first limb is in the affirmative, the second limb of the test asks 'whether a price has been imposed which is either unfair in itself or when compared to competing products' (*United Brands*, 1978, p. 252).

Could the fee charged by Apple be considered excessive on the basis of 'cost'? Apple's net revenue from the App Store is projected to be \$US 17.4 billion for Fiscal Year 2020-21 (*Subcommittee on Antitrust*, 2020, p. 344). Apple receive in excess of \$US 100 million in commissions from Epic and Fortnite (Iyenger, 2021). Apple's running costs for the App Store are estimated at less than \$US 100 million (*Subcommittee on Antitrust*, 2020, p. 345, citing Shoemaker, P.). As many of the costs are common to a range of services offered by the mobile ecosystem it is difficult however to allocate costs and determine a benchmark (ACCC, 2021, p. 72). In the US *Epic* case the Court found that the 30% fee has allowed Apple 'to reap supracompetitive operating margins' and it 'already reflects monopoly levels' (*Epic v Apple*, 2021, p. 92). 'Absent competition, however, it is impossible to say that Apple's 30% commission reflects the fair market value of its services' (*Epic v Apple*, 2021, p. 98).

On a 'comparator' basis, the 30% commission rate is similar to the commission rates charged by other app and digital game marketplaces (ACCC, 2021, pp.72–73). This is difficult to justify however when only 16% of all apps pay for in-app purchases (*Subcommittee on Antitrust*, 2020, p. 340). The cost of alternative electronic payment processing tools is also considerably less than that charged by Apple. The average cost for processing outside of iOS was 4.3% (Epic Findings of Fact (2021), para [454]). On the basis of 'cost-based' and comparator products it could be argued that the fee is excessive. O'Donoghue and Padilla recommend that 'excessive pricing' investigations should be confined to markets where 'consumers have no credible alternatives to the products of the dominant firm' (O'Donoghue and Padilla, 2013, p. 776). This is arguably the situation here given

the high switching costs identified above in the treatment of the App Store as an aftermarket.

In evidence at the *Epic* trial, Apple's CEO Tim Cook, stated '[i]t has nothing to do with money' (Iyengar, 2021). Apple argue that the 30% is not a processing fee but reflects the value of the App Store to the developer. This includes access to a huge network, Apple's technology and development tools, marketing efforts and customer service (Subcommittee on Antitrust, 2020, p. 343). The marketplace provides privacy, security, and a seamless transaction (Apple Findings of Fact, 2020, paras [64]-[92]). Apple claims they require the 'walled garden' to protect their intellectual property and prevent free riding on its success and innovation (Apple Findings of Fact, 2021, para [316]).

Large app developers can also exercise countervailing power in the distribution market. Epic's owner, for example, is worth \$US 28 billion (Kleinman, 2021). Apple claimed that developers have many options for distribution and monetization and that prior to Fortnite's removal from the App Store, Epic had negotiated a greater level of support from Apple (Apple Findings of Fact, 2021, para [114]). The fee was also reduced for smaller developers. Apple introduced a change from 1 January 2021 to allow any developer who earns less than \$US 1 million in annual sales per year from all of their apps to qualify for a reduced App Store cut of 15% on all paid app revenue and in-app purchases (Statt, 2020). These developers accounted for less than 5% of the revenue Apple collected from apps however (Statt, 2020) and reflect that '[o]nly rarely has Apple reduced its commission in response to competitive pressure' (*Epic v Apple*, 2021, p. 62).

The 'economic value' and welfare benefits that flow to consumers from the benefits of an interoperable ecosystem, 'walled garden' and homogenous system may however shift the balance in favour of Apple. At the same time, it is important to remember that the Commission in *Microsoft* found that consumer choice was diminished by 'locking them into a homogeneous Microsoft solution' (*Microsoft*, 2004, para [782]). It is always difficult however to place a value on intangible benefits for determination of 'economic value'. The US District Court in *Epic* was also critical of Apple's lack of transparency about the value of its intellectual property, 'there is no evidence that Apple set or maintains its specific commission rate with any consideration of the value or cost of intellectual property in mind' (*Epic v Apple*, 2021, p. 146).

## 6. Are the Anti-steering provisions anti-competitive?

In the US *Epic* case claims under s1 Sherman Act that the restrictive terms in the developer agreement amounted to an unreasonable restraint of trade and tying in the iOS distribution market ultimately failed. No concerted agreement was established and no anticompetitive effect was found on the rule of reason,

the US District Court largely accepted Apple's justifications on security and intellectual property grounds (*Epic v Apple*, 2021, pp. 143, 149). The IAP was also not considered a separate product market for the purposes of a claim for tying (*Epic v Apple*, 2021, p. 155). Claims under s2 Sherman Act for maintenance of a monopoly and denial of an essential facility on the iOS app distribution market also failed because 52–57% market share in the mobile gaming market was considered insufficient to sustain a monopoly and the conduct was not found to be anticompetitive under the rule of reason (*Epic v Apple*, 2021, pp. 152,159). Judge Gonzalez Rogers however found the 'anti-steering provisions' which prevent app developers from informing iPhone and iPad users of alternative cheaper purchasing possibilities outside of App Store to be anticompetitive under California's *Unfair Competition Law* which prohibits business practices that constitute 'unfair competition' and imposed an equitable remedy restraining the practice (*Epic v Apple*, 2021, pp. 159–167). The Judge found that the lack of information and transparency about policies to allow consumers to find cheaper prices and better quality elsewhere prevented an informed choice among users of the iOS platform. In doing so Judge Gonzalez Rogers made some observations about the importance of pricing information and price advertising to the efficient operation of the market as a form of 'commercial speech' (*Epic v Apple*, 2021, p. 164). Transparency and the open flow of information were particularly important for informed choices in technology markets as 'information costs may create "lock-in" for platforms as users lack information about the lifetime costs of an ecosystem' (*Epic v Apple*, 2021, p. 164) and create the potential for anticompetitive exploitation of consumers (*Epic v Apple*, 2021, p. 164, citing *Eastman Kodak*, 1992, pp. 473–75). The Court also stated that in retail brick-and-mortar stores 'consumers do not lack knowledge of options' but that technology platforms differ (*Epic v Apple*, 2021, p. 165, distinguishing *American Express*, 2018). Apple created 'a black box' and 'enforced silence to control information' (*Epic v Apple*, 2021, p. 165). Apple also used marketing activities such as 'push notifications' and 'email outreach' to keep users coming back (*Epic v Apple*, 2021, p. 163). As Cabral *et al.* put it:

...incomplete information impedes rational consumer decisions and may result in market failure. Apps are experience goods; aftermarket needs are not known at the time of initial purchase and only emerge over time... online aftermarket sales are subject to behavioural biases in in-app advertising and to lock-in effects in apps that exhibit social network effects. (Cabral *et al.*, 2021, p. 18).

## 7. Conclusion

Digital platforms often perform intermediation and gatekeeper roles within an ‘ecosystem’ of interdependent products or services on multisided markets. Market power as ‘intermediation power’ can arise from the control of narrow proprietary ‘walled gardens’ which permits exploitation of an ‘installed base’. The issues arising from the Apple App store litigation exemplifies how firms with intermediation power can impose restrictive conditions and excessive prices in circumstances where the consumer has little possibility of switching.

Several jurisdictions are considering sector-specific legislation to deal with this conduct. In the US a bipartisan Open App Markets Act Bill was introduced to the US Congress in August 2021. It specifically targets app stores to prevent self-preferencing and mandating use of own IAP systems. It will only apply to companies with more than 50 million US users and so specifically targets Google and Apple. In the EU, the DMA is much broader in scope. It proposes to deal with anti-steering by imposing duties on gatekeepers under Article 6(c) to allow the installation of and access to third party software applications. Another regulatory solution could be a cap on fees similar to the regulation of interchange fees.

Notwithstanding these regulatory solutions, this paper has explored some of these issues within the context of traditional competition law and its treatment of aftermarkets. Competition law recognises that a narrow aftermarket can be exploited through the imposition of restrictive conditions and excessive prices and this framework can assist in understanding the competitive constraints in digital markets. While the US *Epic* decision rejected the aftermarket theory it also reaffirmed the importance of the admission of cogent evidence to support claims of high switching costs and information deficiencies which may prevent lifecycle pricing. In contrast, a number of EU decisions have found that narrow single brand markets can be exploited as aftermarkets. While the European Commission’s case against Apple is still at the ‘Statement of Objections’ stage it is argued that a successful case may be made for ‘excessive pricing’ and other possible claims such as tying under Article 102 TFEU.

In proposing antitrust solutions it is also important to recognise that if Apple is forced to reduce its fee or allow alternate payment systems, it would no doubt expect to recoup investments elsewhere within the ecosystem, including higher prices for all app developers and mobile devices. It is also a valid defence to wish to preserve the consumer benefits that flow from a secure and proprietary ‘walled garden’ and interoperable system. At the same time the EU *Microsoft* case expressed dissatisfaction with conduct that ties consumers to a homogenous system.

There is a final aspect to this discussion which raises important issues for the competition regulation of digital platforms. The US Court in *Epic* finding that the ‘anti-steering provisions’ were in breach of California’s *Unfair Competition*

Law highlights the importance to consumer choice of the flow of accurate and transparent information in digital markets. Intermediation power creates opportunities and incentives for the dissemination of obscure and opaque information. Gaming apps remain a huge source of revenue for Apple and the threat of competition from middleware through cloud computing and web-based browsers poses a threat to this important source of monetization. This provides an explanation for Apple's use of 'push notifications' and emails to manipulate consumer attention and its imposition of the 'anti-steering provisions' and other restrictive conditions. The European Commission and Courts have already demonstrated that they have been willing to incorporate considerations of consumer behaviour such as the role of consumer inertia and 'status quo bias' within their discussion of switching costs in the assessment of market power in the *Google* litigation. There is an ongoing debate in global competition law about the adequacy of current competition laws to deal with the challenges of the abuse of power and data in the digital economy. The Apple litigation may provide another opportunity to demonstrate the flexibility of EU competition law to regulate novel abuses and complex business models.

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