



TAKING STOCK OF APP STORES

App stores are raising concerns about competition and even net neutrality. **HENK DON, MICHIEL VAN DIJK** and **FEMKE NAGELHOUD-DE JONG** explain why – and put forward a wider view about introducing an ex ante approach

In April 2019, the Netherlands Authority for Consumers and Markets (ACM) published a market study on mobile app stores.¹ In this study, we described how the market for app stores for mobile phones has evolved in recent years, how app providers get their apps published in an app store, and whether app providers perceive any problems in this context. ACM received information from app providers about certain practices of Apple and Google. In the conclusion of our study, we held the provisional view that there is cause for concern. Considering the reports we received concerning the possible abusive behaviour of Apple's use of its app store, and considering the public interest that might be at stake, we concluded that several problems needed further investigation.²

In this article, we describe the reasons, approach, and findings of the market study. We conclude by exploring possible future approaches, including a possible extension of the current regulatory toolkit.

THE INCREASING RELEVANCE OF APP STORES

For 2018 and 2019, ACM put the digital economy as a key priority on its multi-annual agenda.³ Innovations in the digital economy offer businesses and consumers huge opportunities. But the digital

economy and, more specifically, digital platforms, also raise new questions: how to give these innovations free rein by keeping markets open, while, at the same time, ensuring that consumers and businesses gain the most from these benefits? How to prevent online platforms from becoming so successful that they work less in the interests of their consumers and business customers because there is no real competitive pressure on their platform? Regarding app stores, ACM has doubts whether the market outcome is optimal.

Since 2016, under the open internet regulation,⁴ internet service providers (ISPs) in Europe have been forbidden to block, alter or discriminate against internet traffic. More generally, this regulation intends to safeguard the right of both the senders and the receivers of internet traffic to access and distribute information and content, as well as use and provide applications and services of their choice. To that end, the regulation requires ISPs to keep open the broadband connection between, on the one hand, the equipment of end users, such as a smartphone, and, on the other hand, providers of digital services and content. The open internet regulation does not directly address online platforms such as app stores. However, ➔

← considering the growing importance of app stores for app providers and end users, it could be questioned whether app stores have the opportunity to restrict app providers and end users in their right to connect to each other as they please. After all, how much would this right mean to end users if the bottleneck restricting the use of their mobile broadband connection were replaced by one deciding for them which apps they could use best?⁵ Have the app stores become such a bottleneck?

Over the past decade, the smartphone has become increasingly important. Consumers use their smartphones more and more to access content and services on the internet. This is mostly done through apps. Furthermore, a considerable amount of internet traffic now goes through apps: of the 61 hours Dutch people spend on their mobile phones on a monthly basis, they spend 6 hours in the browser and 55 hours in apps.⁶

Apple and Google have both attained strong positions with their operating systems (iOS and Android) and accompanying app stores (App Store and Play Store). Over 99% of all smartphones in the world run on Google's operating system (Android, 86.2%) or Apple's operating system (iOS, 12.9%).⁷ In the Netherlands, the difference in market share between iOS and Android is significantly smaller: between 30% and 40% of all smartphones in the Netherlands run on iOS, others (almost all of them) on Android. Hence, for companies that want to reach the Dutch consumer with a smartphone, it is important to have an app in both app stores.⁸ If companies are unable to get access to consumers through the app stores, this might harm their ability to effectively offer their services to consumers.

Apple and Google determine and control what apps are available in their app stores. They do so by setting the terms and conditions for their app stores, determining what functionalities are available to app providers, and by deciding how apps are ranked and featured in the stores. App stores are thus the entities guarding the selection for and presentation of apps to consumers.

The growing importance of app stores in combination with the purposes of the open internet regulation is the reason why ACM started the market study: to gain a deeper understanding of how the app stores work, and whether app providers are confronted with problems when publishing or developing an app.

HOW DID ACM GO ABOUT THIS PROJECT?

We analysed this market from a broad perspective, using the benefits of being a multidisciplinary authority. ACM is a single national authority charged with competition oversight, consumer protection and sector-specific regulation of energy, transport, postal services and telecoms. We are consequently active in the international networks of regulators in all these fields,⁹ enabling access to the information shared in these networks on best practices and current trends and developments. Being a multifunctional authority also gave us the opportunity to form a team with knowledge of not only these regulatory fields but also with relevant

legal, economic and technical experience. In addition, ACM is equipped with a wide range of legal instruments that might be needed to conduct such a market study. For example, we are authorised by law to gather all information that is relevant to the performance of our duties, and are not restricted to any specific sector.

In this market study, we deliberately chose not to carry out a full-blown competition law analysis in which markets are defined, and where the presence of an undertaking with a dominant position, and the abuse of that position, are established. By doing so, it was possible to see first whether there might be any problematic market outcomes before any elaborative analyses about market definitions and dominance should be done. We examined a specific relationship within the digital economy: that between the app store and the app provider, as well



A considerable amount of internet traffic now goes through apps: 55 hours monthly for the Dutch.



as the impact of this relationship on the availability of apps. To get a deeper understanding of the app stores, we interviewed several app providers, received written input, and spoke with Apple and Google.

To get in touch with the app providers, we issued a press release calling for people to come forward with relevant information. Several news media, and also technical discussion forums, drew attention to this announcement. Several app providers subsequently contacted ACM, but it also gave us the opportunity to contact smaller app providers, for example those who posted comments on a Dutch forum for technology experts. We spoke with the app providers about their experiences in working with both app stores: whether they experience problems within the approval process, about transparency and communication with Apple and Google, and whether they think there are viable alternatives to reach Dutch consumers via smartphones.

In addition, we received written input from several app providers and conducted desk research to verify the statements of the app providers. We also studied the general terms and conditions of both Apple and Google, to learn more about the specific rules of the app stores. Furthermore, we contacted several European authorities active in different regulatory fields. We also asked Apple and Google for their opinions on this market, and for their explanations about the rationale behind their general terms and conditions.

In the market study, we analysed the app stores and their importance. We also studied the process of approval, selection and management of apps, both for Apple's and Google's own apps and for third-party apps, and the influence of this process on the availability of apps to end users. Since this study was conducted from a broader perspective, we chose not to place potentially problematic conduct in a specific legal framework, but described how it might affect the public interests that follow from

our objectives of promoting competitive markets and safeguarding consumer interests. Finally, we established which of the identified practices might call for further investigation.

FINDINGS

In our market study, we found that Apple and Google derive their strong positions from different factors. One factor is that they have managed to activate indirect network effects effectively by opening up their platforms to third-party app providers. This increased the value of their products and services. Google and Apple’s app stores integrate the digital components (smartphones, mobile operating system, app stores, apps), which enable them to profit fully from indirect network effects and reach scale effects. Furthermore, both ecosystems are still closed enough to control the app ecosystem and guarantee its quality.

We assessed whether the app stores and/or the app ecosystems form a bottleneck within the ecosystem. This was analysed by assessing whether there are viable alternatives available both for the app as such, and for the two app stores. We concluded that browsers or web apps cannot be considered a realistic alternative since their functionality and usability is limited.

Therefore, the way in which apps can be loaded on a smartphone is relevant. This leads to the question of whether there is a viable alternative to the app stores. Concerning Android, it is noted that the Play Store can be circumvented with a practice called sideloading.¹⁰ We concluded that this is only feasible for app providers that already have achieved a sufficient level of brand awareness. With respect to the Apple iOS, there is no way to circumvent the App Store. Therefore, both app stores seem to be a bottleneck within their respective ecosystems.

Subsequently, we took stock of what conduct app providers experience in the app stores. The conduct ACM found can be grouped into three topics.

Equal access to the end user. App providers have voiced concerns regarding the conditions under which access to the stores is granted and refused. App providers complain that the terms and conditions for access, especially for Apple, are open to multiple interpretations, and that the reasons given for a refusal can be unclear. App providers experience problems with the interoperability of the operating system or functionalities on the phone, like Siri or the NFC chip.

These problems are said to create a disadvantage compared with apps of the app store owners. Other app providers have indicated that, even though their apps are given full access to the functionalities of the smartphone, they have a strong disadvantage compared with proprietary Apple and Google apps, due to the pre-installation of the latter combined with consumers’ natural bias to use default options.

In-app purchases. The fee levied by Apple and Google leads to complaints by app providers. When app providers sell digital content or services in their app, they are required to use in-app purchases

(IAP). Only apps that sell digital content that is delivered on the phone need to pay the fee: examples being Spotify, Netflix, premiums in a game or subscriptions to a newspaper. For an Uber ride or a package from Amazon, the use of IAP is not required.

Apple and Google do not allow links to other payment methods outside the app. App providers question the high percentage of the fee (especially in the case of subscription services), and the distinction between those apps that do and do not have to pay the fee on IAP. On top of that, app providers state that, when they use IAP, there is an inability to access customer data and, consequently, to offer the right level of services to customers.

Transparency and liability. App providers have indicated that it can be difficult to get in touch with Google and Apple. Communication about rejections refer to vague terms and conditions, which makes it hard for app providers to comply. It is not possible for small and mid-size app providers to communicate with Apple and Google about the refusal of an app. Not only does this lead to a delay



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for the app provider, but it might also damage its reputation, and might be very costly. Furthermore, Apple’s terms and conditions allow them to shift all liability to app providers and to copy the functions in their own software (sometimes

referred to as “sherlocking”, after Apple implemented features of an app in its Sherlock search tool). App providers have no choice but to accept these terms and conditions or give up access to the app stores altogether.

Views of apple and Google. We also asked Apple and Google about their views on these topics, the terms and conditions they use, and on app review and store management processes. Apple and Google indicate that these are driven by integrity, safety and the quality of the app stores and the ecosystems, the investments they made to develop the app stores, and the opportunities the app stores give to app providers. According to Apple, favouring their own apps over third-party apps would not be rational. Apple wants to offer the best services to its users and therefore has no incentive to refuse a third-party that offers a higher quality app.

HOW CAN ACM ADDRESS THE ISSUES THAT WE FOUND?

In this project, we started investigating whether there is a problem, before exploring ways (legal or otherwise) to address possible problems. This way of working is rooted in ACM’s oversight style; the way in which we carry out our duties. It allows us to put the effect of our actions first. So for example, if ACM sees market problems due to the behaviour of a specific company, we will seek to end this behaviour in the most effective way. Sometimes this requires imposing an administrative decision like a seize- ➔

and-desist order or imposing a fine, while in other cases, public monitoring or initiating a discussion on implementing certain rules with a company delivers sufficient and faster results.

The basic framework of European competition law, as embedded in Articles 101 and 102 of the Treaty on the Functioning of the European Union (TFEU), is generally sufficient to address the most pertinent competition problems in the digital economy. As the national competition authority, ACM is able to apply these rules in the Netherlands as well as the corresponding rules in national law. Following the market study, we launched an investigation into possible abuse of dominance.

One drawback, however, is that ex post intervention can be too slow in these highly dynamic and innovation-driven markets. When such markets are characterised by “winner-takes-most” dynamics, driven by strong network effects, high barriers to entry due to data collection and consumer lock-in, there is a risk that ex post enforcement comes too late to keep markets competitive and contestable. Furthermore, an ex post assessment usually requires an analysis of the effects to develop – effects that we would rather prevent than cure. This line of reasoning has been explored by several authors.¹¹ Therefore, we support the initiative of the Dutch government to think about introducing a forward-looking instrument to prevent market foreclosure and other anti-competitive effects.¹² This instrument would require the authority to perform an ex ante assessment of a situation, much like is currently done under EU telecoms law.¹³

INTRODUCING EX ANTE TOOLS

Under EU telecoms rules, which are based on EU competition law principles,¹⁴ telecoms authorities conduct market analyses of various telecoms markets on a regular basis.¹⁵ The authority determines a relevant market, and assesses the positions of the relevant participants in this market. If such a position is found to be one of significant market power, the authority may impose remedies to prevent potential competition problems.

Proportional remedies can range from transparency requirements, to non-discriminatory access to certain services at cost-based prices. In a similar spirit, the UK’s Competition and Markets Authority (CMA) has the power to intervene following a market study in any market where it finds adverse effects on competition.¹⁶ In addition, the CMA has opened up the question of whether the current powers are sufficient in relation to the digital economy.¹⁷

The Dutch government has proposed a similar European ex ante tool.¹⁸ Compared with ex post application of competition law, the ex ante tool would seek to address specific competition concerns using proportionate and tailor-made remedies before a violation takes place. Therefore, there is not only less harm done, but there is also more choice in deciding what instrument to use for addressing particular concerns.

There is no punitive aspect in the ex ante tool, which can facilitate acceptance and simplify the proceedings. Compared with ex post competition law interventions, the tool should deliver results faster. Ex ante decisions, by definition, give more legal certainty and predictability to market participants than decisions that establish that a violation of the law has occurred in the past.

The idea of an ex ante tool offers some interesting additional opportunities. In particular, the public interests to be served with the ex ante tool could go beyond the objectives of European competition law.¹⁹ It could, for example, also be used to promote openness of and diversity on a platform. Also in EU telecoms legislation, competition is a means and not a goal in itself. It has other objectives, such as investments in connectivity.²⁰ Likewise, a set of non-competition objectives is found in the open internet regulation, which aims to protect end users and simultaneously guarantee the continued functioning of the internet ecosystem as an engine of innovation.²¹

We believe that if the tool were construed in the right way, this would help to solve market problems in the digital economy at an early stage. Concerning the app stores, it could further facilitate a more open digital environment, strengthening opportunities for large and small participants. This would lead to a more stable environment for both the app providers and the app stores.

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REFERENCES **1** Market study into mobile app stores. ACM, 11 April 2019. bit.ly/2X5eaBl **2** ACM launches investigation into abuse of dominance by Apple in its app store. News release, 11 April 2019. is.gd/VaR2Vi **3** Mission & strategy: The digital economy, 2018-2019 ACM agenda. is.gd/SVeGUS **4** In regulation (EU) 2015/2120 of the European Parliament and of the Council of 25 November 2015 laying down measures concerning open internet access, the European legislature codified what is commonly referred to as net neutrality principles in a EU-wide binding law. Article 3 contains the key provisions of this regulation. **5** In the report by France’s communications regulator, Arcep – Devices, the weak link in achieving an open internet – the same question was approached from a different angle. bit.ly/2ErEehQ **6** Trends in internet use. SIDN. bit.ly/2o4lzm9l **7** Meer dan 99 procent van verkochte smartphones draait Android of iOS. Tweakers, 19 August 2016. bit.ly/2ko7sJD. The article is based on a Gartner news item **8** In the report, Zur Offenheit des Internets: Betriebssysteme, Apps und App Stores, Austria’s regulator, RTR, also explored whether operating systems and app stores are bottlenecks for apps and how this relates to competition and innovation. Austrian research shows that hardly any app stores other than the Google and Apple stores are used, and that a significant number of people only use pre-installed apps. **9** For competition: International Competition Network and European Competition Network (ICN and ECN); for energy: Agency for the Cooperation of Energy Regulators (ACER) and Council of European Energy Regulators (CEER); for consumer protection: International Consumer Protection and Enforcement Network (ICPEN) and Consumer Protection Cooperation (CPC); for telecoms: Body of European Regulators for Electronic Communications (BEREC); for postal services: European Regulators Group for Postal Services (ERGP); for rail transport: Independent Regulators Group – Rail (IRG-Rail); for airport charges regulation: Thessaloniki Forum of Airport Charges Regulators. **10** Sideloaded is the installation of apps on a smartphone without using an app store and requires technical expertise and discarding warnings from the operating system. An example is Epic Games, which offered Fortnite in 2018 for sideloading. **11** See for example the 2019 report, Unlocking digital competition, by the UK’s Digital Competition Expert Panel. bit.ly/2T3lcUa and Crémer J. et al. (2019). Competition policy for the digital era. European Commission. bit.ly/2WQdu3n. More practical, yet in the same direction, is the UK CMA’s Online platforms and digital advertising market study, July 2019. bit.ly/2mk58nq **12** ACM supports Dutch cabinet’s call for additional regulatory tools regarding online platforms. News release, 8 August 2019. bit.ly/2lVMBxK **13** See the European regime after 2020: Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code: Title II, Chapter III on market analysis and significant market power. **14** *Ibid.*, Recital 163. **15** Commission recommendation of 9 October 2014 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC on a common regulatory framework for electronic communications networks and services text with EEA relevance. **16** Market studies and market investigations: Supplemental guidance on the CMA’s approach. CMA, January 2014 (revised July 2017). bit.ly/2k0vc05 **17** Online platforms and digital advertising market study. Statement of scope. CMA, 3 July 2019. bit.ly/2mk58nq **18** Dutch government: Change competition policy and merger thresholds for better digital economy. News item, Netherlands government, 27 May 2019. bit.ly/2kh98y9 **19** The TFEU preamble mentions as an objective “fair competition” in Article 3 “competition on the internal market”, and in Article 32 “competitive capacity of undertakings”. **20** Article 1.3 of the Dutch telecoms law, implementing the European telecoms framework, states that remedies should be imposed in the light of the objectives of that law, which are, next to encouraging competition, e.g. by means of efficient investments in infrastructure and innovation, also the development of the internal market and encouraging the interests of end users regarding choice, quality and price. **21** Recital 1 of the Open Internet Regulation.