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The Google Android Decision

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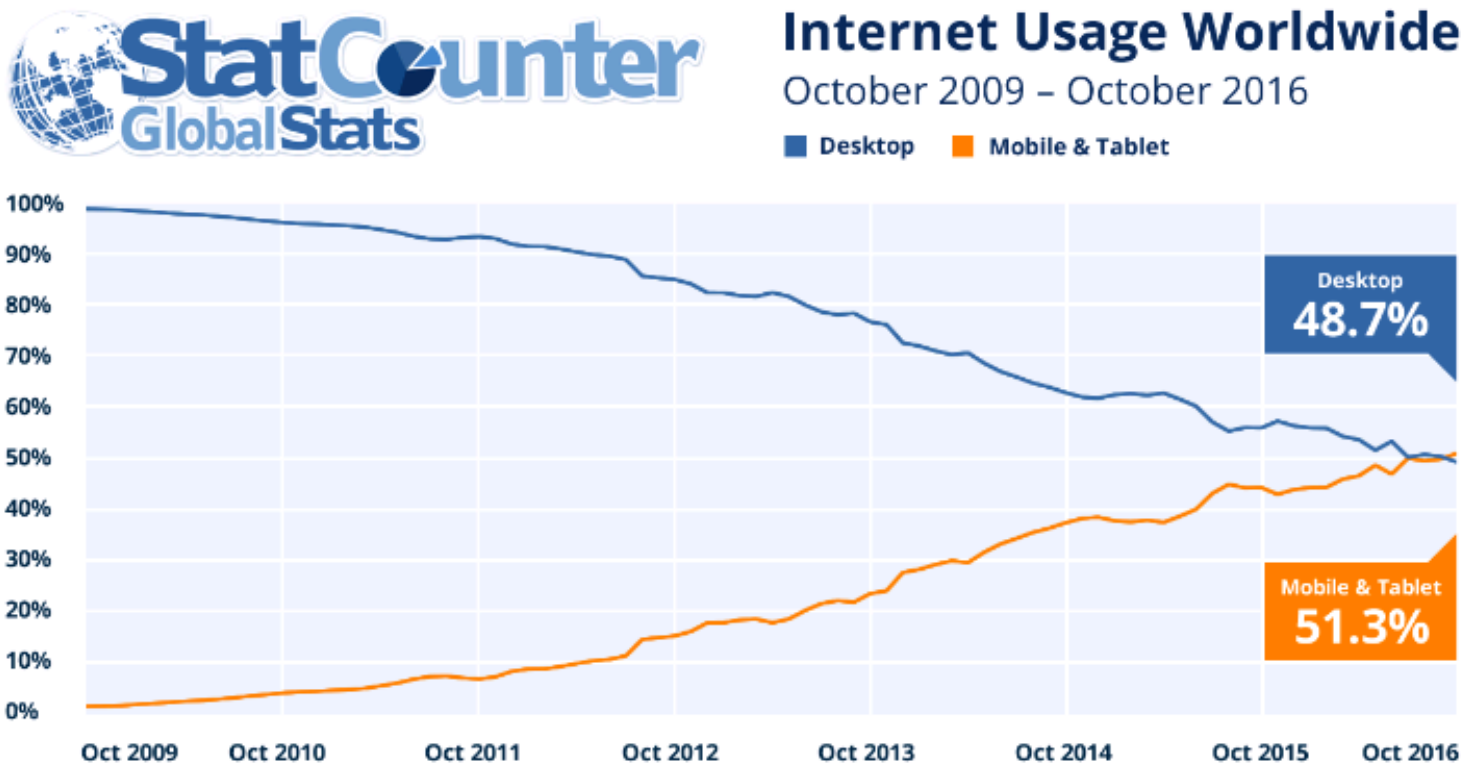
(speaking in a personal capacity - the views expressed are not necessarily those of the European Commission)

I. INTRODUCTION

Background: shift to mobile internet



- Google developed its business model in the **PC** environment, where the **web browser** is core entry point of Internet
- In mid 2000s, industry began to **shift its focus** from PCs **to smart mobile devices**

Android

- Google bought the original developer of the Android mobile operating system in 2005
- Google continued to develop Android, the basic features of which are open source
- When Google develops a new version of Android it publishes the source code
  - third parties can use and modify this code to create Android "forks"
- Device manufacturers who wish to obtain Google's proprietary Android apps and services (Play Store and other apps) need to enter into contracts with Google, as part of which Google imposes a number of restrictions
- Google also entered into contracts with mobile network operators containing restrictions

Android has been a vehicle for search

- Google was not a smartphone manufacturer and had no control over mobile platform/operating system
- Google recognised risks and opportunities associated with move to mobile:

Risks

- Google PC-centric services could be replaced by competing services in quickly-developing mobile segment
- Move away from web browser as access point to Internet

Opportunities

- Potential for increase in use of Google services in mobile sphere
- Availability of additional data not available on PC

Overview of abuses

Tying, whereby a device manufacturer which takes the Google Play Store must take a tied suite of apps including Search and Chrome: foreclosure in search and browser

Revenue sharing on condition of exclusive pre-installation of Google Search: foreclosure in search

Anti-fragmentation agreements between Google and device manufacturers: foreclosure in mobile operating systems and in search

II. MARKET DEFINITION AND DOMINANCE

Market definition

1. Licensable smart mobile OSs

- Different from PC OSs or OSs for basic and feature phones
- Same product market for smartphone OSs and tablet OSs
- Non-licensable OS (e.g. Apple's iOS) are out of the market
- Geographic scope: worldwide market (excluding China)

2. Android app stores

- Different from other apps
- App stores for other licensable smart mobile OSs are out of the market (e.g. Windows Mobile Store)
- App stores for non-licensable smart mobile OSs are out of the (e.g. Apple App Store)
- Geographic scope: worldwide market (excluding China)

How about Apple iOS?

- The existence of a certain degree of downstream competition at the level of smartphones does not mean that iOS is in the same market as Android
- OEMs have no alternative but to license an OS developed by 3rd parties
- Apple does not grant licenses for iOS: the only possible constraint from iOS is an **indirect one**
- The Decision **assesses indirect constraints** in detail

To what extent does downstream competition constrain Google upstream?

- The operating system is only **one component** of many of a smartphone
- Apple is only present on **high-end** devices
- **Switching costs, loyalty effects** deter downstream users from switching to iOS sufficiently to constrain Android

Dominance

- Licensable smart mobile OS: **Android**
  - Has a 90%+ market share
  - Installed on c. 80% of smart mobile devices worldwide
- App stores for Android: **Play Store**
  - Pre-installed on 95%+ of Android devices
  - Has a share of 90%+ of app downloads on Android app stores
  - Considered a "must-have" by device manufacturers

Don't forget!

- Google's dominance in search
  - 90%+ market share
  - High barriers to entry
- 3 of the 4 abuses are also abuses of Google's dominance in search

II. THE ABUSES

Summary of the abuses

- 1. Tying
  - Tying of the Google Search app with the Play Store
  - Tying of Google Chrome with the Play Store and the Google Search app
- 2. Revenue share for search conditional on exclusivity
- 3. Anti-fragmentation
  - Licensing of Play and Search conditional on device manufacturers entering into anti-fragmentation agreements

Tying

Tying

- If device manufacturers want to pre-install the Play Store, they must sign Mobile Application Distribution Agreements (**MADAs**) under which they must also **pre-install** a range of Google apps, including **Google Search** and **Google Chrome**
- Two abuses:
  - Tying of the Google Search app with the Play Store
  - Tying of Google Chrome with the Play Store and the Google Search app

MADAs: usual tying analysis

- Distinct products (Play, Search, Chrome)
- Dominance in tying product (Play Store and Google Search)
- Tying product cannot be obtained without tied product
- Tying harms competition: provides Google with significant advantage that competitors cannot offset
  - Pre-installation on all Google Android devices gives Google significant advantage
  - Google's competitors cannot offset advantage (via downloads, pre-installation agreements, other access)
  - Development of market shares consistent with effects
  - Tying strengthens general search dominance, forecloses browser competition, increases barriers to entry, deters innovation, harms consumers

Analysis of effects

- Evidence on pre-installation:
  - Empirically, downloads of rival search and browser apps do not counteract the pre-installation advantage
  - OEMs: limited interest in duplicating apps (transaction cost, user experience, exclusivity impossible for competitors)
  - on **Android** devices more than 95% of all search queries were made via Google Search
  - on **Windows Mobile** devices, less than 25% of all search queries made via Google Search
- Market developments consistent with incentives:
  - Penetration of Google Search higher on mobile than desktop
  - Chrome grew faster on mobile than desktop

Objective justification and efficiencies

- Backdrop: Android is a vehicle for search
  - Google has not shown that the tie is necessary to monetise its investment in Android
  - Google achieves significant revenues with Play Store; it gathers valuable data via Google Android
  - Google would achieve search advertising revenues on devices without MADA (like on PC)
  - If users want an out of the box experience with different apps pre-installed, it should not be Google that ensures that it is always its apps that are the ones pre-installed

Revenue share conditional on exclusivity

Revenue share agreements conditional on exclusivity

- Between 2011 and March 2014, Google entered into **portfolio-based revenue share agreements** with a range of device manufacturers and mobile network operators
- Google shared its search revenues on condition that device manufacturers and mobile network operators did not pre-install **any competing search service on Android devices**
- **MADA tying** is about ensuring **pre-installation** of Google Search. These agreements were about ensuring that Google Search was **exclusively** pre-installed

The abuse

- Exclusivity payments
- Effects analysis outlines harmful effects
  - Contemporaneous evidence shows that OEMs/MNOs would have wished to pre-install competing search services, but were deterred by RSAs (combination with MADA)
  - Quantitative analysis shows that competitors with the same costs would have been unable to match the Google payments
  - Portfolio effect: meaning that if a customer wanted to launch just one device with a rival pre-installed, it would lose the revenue share across all devices
  - Downloading of rivals by consumers not a realistic constraint

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Anti-Fragmentation agreements (AFAs)

Anti-Fragmentation Agreements

- Google Android is based on the Android Open Source Project code (**AOSP**)
- Anyone could take AOSP and develop a new OS ("**Android fork**"), such as Amazon's Fire OS, Alibaba's AliYun and Nokia X
- Google hampered the development of Android forks by entering into **Anti-Fragmentation Agreements (AFAs)** with device manufacturers which wanted to pre-install its proprietary apps
- Through AFAs, device manufacturers were obliged not to "fork" Android and not to distribute even one device based on a "fork"
- AFAs applied to the entire portfolio of a device manufacturer, i.e. not only to devices which pre-install Google proprietary apps

The abuse

- Licensing of Play and Search conditional on device manufacturers entering into AFAs
- Android forks represent a credible competitive threat to Google Android: app adaptation easier than between other OSs
- AFAs cover large part of market: most major device manufacturers
- Directly foreclose rival open source operating systems
  - Device manufacturers prevented from launching any devices with forks
  - Harms choice and innovation
  - Example of Amazon Fire OS

Objective justification and efficiencies

- Google decided to develop an open-source OS and profited substantially from the open-source nature of Android
- "Fragmentation" is in fact innovation and competition
- No evidence that Android forks would be affected by technical failures or fail to support apps
  - And even if this were the case, Google can continue to use branding (e.g. "Android" logo) to differentiate between Google Android and forks
- AFAs are disproportionate as they go beyond what is needed to protect Google's legitimate interest in the functioning of its own proprietary apps
- Decision allows Google to be allowed to set technical specifications for devices pre-installing Google proprietary apps, but not prevent device manufacturers from pre-installing forks

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Single and continuous infringement (strategy)

Single and continuous infringement

- Same objective of all abuses: **protect** and strengthen Google's position in **general search** (and related search advertisement)
  - ***MADAs***: ensure that Google Search app and Google Chrome (which are most important search entry points on Android devices) are on all devices
  - ***Revenue share***: ensure that for major OEMs/MNOs, Google Search is the only pre-installed general search service
  - ***AFAs***: prevent Android forks that Google does not control (and on which therefore could be other general search services)
- Abuses also significantly help Google's data collection

IV. CONCLUSIONS

Conclusions

- The case is a traditional one using the usual framework
  - Contractual restrictions which foreclose competition and harm innovation
  - No issue with Android as such or open source
- Detailed effects analysis based on a broad range of evidence
  - Looks at the harm to competition in each market concerned by the different abuses (search, browser, operating system) taking account of the two-sided context where relevant
- Analysis of objective justification/claimed efficiencies in the usual way
- Abuses come together in a single, related strategy: <u>all about search</u>