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Presentation: Challenges for Competition Policy in a Digitalised Economy

In-depth Analysis for the ECON Committee

EN

2015

Presentation: Challenges for Competition Policy in a Digitalised Economy

DIRECTORATE GENERAL FOR INTERNAL POLICIES
POLICY DEPARTMENT A: ECONOMIC AND SCIENTIFIC POLICY

Presentation of the study 'Challenges for Competition Policy in a Digitalised Economy'

BRUSSELS, 15 July 2015

In-depth Analysis

Abstract

The study presented in this event describes the challenges for competition policy in relation to the digital economy. It explores the specific characteristics of digital economy markets and how these characteristics impact competition policy. The study focusses on competition policy and its instruments such as anti-trust laws, merger regulation, sector specific regulation and State aid. Neighbouring policy fields such as copyright and data protection are outlined where important.

This presentation was prepared by Policy Department A at the request of the Committee on Economic and Monetary Affairs.

IP/A/ECON/2014-12 August 2015
PE 563.432 EN

This presentation and document was requested by the European Parliament's Committee on Economic and Monetary Affairs (ECON). It refers to the annual competition study on 'Challenges for Competition Policy in a Digitalised Economy' by Nicolai VAN GORP and Olga BATURA.

RESPONSIBLE ADMINISTRATORS

Stephanie HONNEFELDER
Doris KOLASSA
with support by

Annalena BURTSCHEID, trainee

EDITORIAL ASSISTANT

Karine GAUFILLET

LINGUISTIC VERSIONS

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ABOUT THE EDITOR

To contact the Policy Department or to subscribe to its newsletter please write to:
Policy Department A: Economic and Scientific Policy
European Parliament
B-1047 Brussels
E-mail: Poldep-Economy-Science@ep.europa.eu

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DIRECTORATE GENERAL FOR INTERNAL POLICIES

POLICY DEPARTMENT A: ECONOMIC AND SCIENTIFIC POLICIES

STUDY PRESENTATION:

Challenges for Competition Policy in a Digitalised Economy

Programme

Wednesday, 15 July 2015, 9.00 to 10.30 hrs., European Parliament, Brussels

Room ASP 1E2; DE/EN/FR interpretation; the event will be web-streamed

9.00 – 9.05 hrs.	**Welcome and Introduction: Markus FERBER, ECON Vice-Chair and Chair of the ECON Working Group on Competition Policy**
9.05 – 9.25 hrs.	**Presentation of the annual study on competition policy 2014 on '*Challenges of Competition Policy in a Digitalised Economy*' provided by ECORYS, NL**
Paul DE BIJL	Founder of Radicand Economics, Woerden, Netherlands, associate partner of Lexonomics, Brussels area, Belgium, and visiting professor Regulatory Economics at WHU Otto Beisheim School of Management, Vallendar, Germany
Olga BATURA	Researcher at the Leuphana University of Lüneburg, Germany
9.25 – 9.35 hrs.	**Comments by:**
Thomas WECK	Senior Legal Analyst, Monopolkommission (German Monopolies Commission), Bonn, Germany
9.35 – 10.25 hrs.	**Discussion on the findings of the study**
10.25 – 10.30 hrs.	**Closing remarks by Markus FERBER, ECON Vice-Chair and Chair of the ECON Working Group on Competition Policy**

2. CURRICULA VITAE OF THE SPEAKERS

Paul DE BJIL

Dr. Paul de Bijl is owner/principal of Radicand Economics (Netherlands), associate partner of Lexonomics (Belgium), and part-time visiting professor Regulatory Economics at the WHU Otto Beisheim School of Management (Germany). During 2006-2013, Paul was head of the department Competition and Regulation at the CPB Netherlands Bureau for Economic Policy Analysis, the Dutch government's economic think tank. He is also a non-governmental advisor of the ACM (Authority Consumers and Markets; the Dutch competition authority). Before that, he worked (among others) at the Dutch Ministry of Finance and the Tilburg Law & Economics Center (TILEC), Tilburg University. Paul obtained a PhD in Economics at Tilburg University. His fields of expertise are regulatory economics, competition economics and industrial organization. With professor Martin Peitz, Paul wrote the book *Regulation and Entry into Telecommunications Markets* (Cambridge University Press, 2002; Chinese translation 2006), which has received positive critical acclaim from academics, consultants and regulators. He has published in various academic journals, including *Telecommunications Policy*, the *Journal of Information Policy*, the *International Journal of Industrial Organization*, the *Journal of Regulatory Economics* and *Information Economics and Policy*. He is a member of the International Editorial Board of *Communications & Strategies* and the Editorial Board of the *Journal of Information Policy*.

Olga BATURA

Olga Batura is a researcher at the Leuphana University of Lüneburg, Germany, and an associate professor at the European Humanities University in Vilnius, Lithuania. She studied law at the European Humanities University in Minsk (Belarus), at the University of Bremen and at the Europa-Kolleg Hamburg. Olga defended a PhD thesis on regulation of universal service in telecommunications markets by the EU and WTO and worked on various topics of trade in telecommunications services, market regulation and competition at the Collaborative Research Center "Transformations of the State" of the University of Bremen and at the University of Hamburg.

Thomas WECK

Studies of law in Heidelberg and San Francisco; PhD on merger control in the banking sector in 2005; in parallel registration as Attorney and Counselor at Law (NY); lawyer in Brussels from 2007 to end 2012; currently Senior Legal Analyst at the German Monopolies Commission (Bonn), responsible for financial markets and digital economy. The Monopolies Commission is an independent expert committee, which advises the German government and legislature in the areas of competition policy-making, competition law, and regulation.

3. CONTRIBUTIONS BY THE SPEAKERS

3.1. Paul DE BIJL and Olga BATURA

The digital economy

The value web

Various routes to reach end-users

- The digital economy is…

- …a complex structure of platforms stacked on each other…
- …resulting in wormholes that allow the end-user to seamlessly move from one environment/platform into the other…
- …making it difficult to exclude competitors.

- …a market with a tendency to tip into a winner-takes-all outcome…
- …but the 'winners' need to constantly innovate as they are challenged by disruptive innovators…
- …the market boundaries constantly change.

ECORYS

The digital economy

The value web

Various routes to reach end-users

- Consumers can choose to consume / communicate how they want…

- …and when and where they want

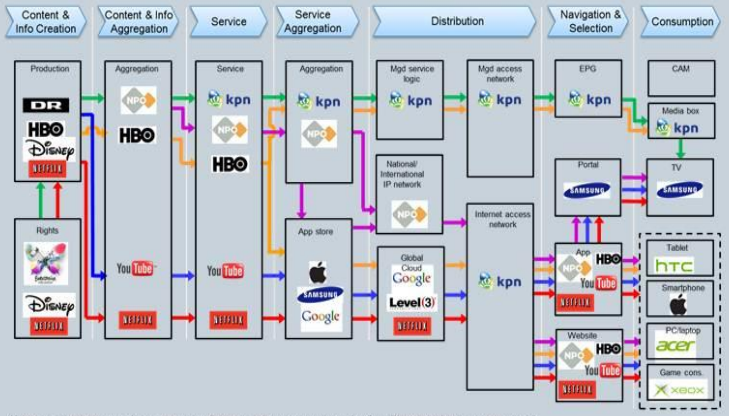
ECORYS

The digital economy

The value web

Various routes to reach end-users

- Providers of content have even more options, and often choose multiple



(Note: routes and company logos shown are only for illustration purposes)

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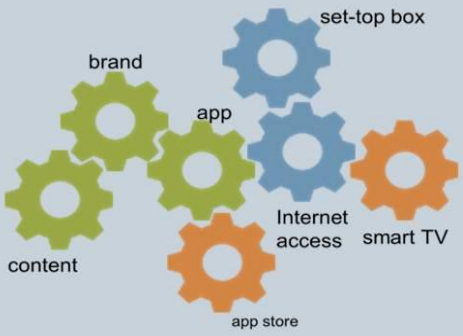
The digital economy

The value web

Various routes to reach end-users

- Companies build assets and combine these with assets from others



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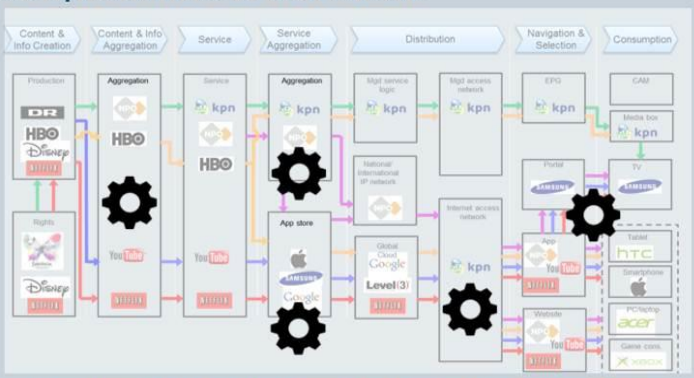
The digital economy

The value web

Various routes to reach end-users

- Assets provide a platform role for their owners



A platform is a basis for aggregating services and/or content.
A platform mediates between service/content providers and end-users.

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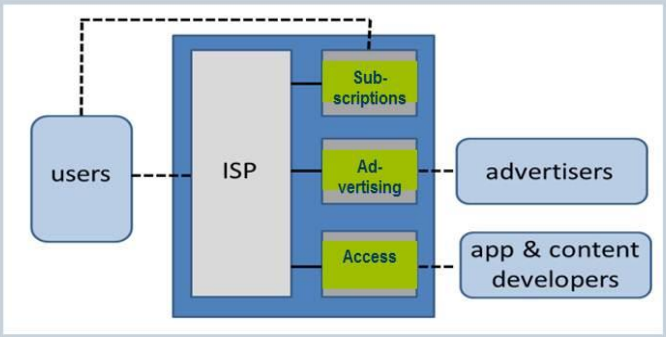
The digital economy

Digital business models

Typology of platform based models



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The digital economy
Digital business models
Common characteristics
• Network effects (direct and indirect)
– High concentration and tendency to tip (winner takes all)
– Compete for an audience / end-user base
– Compete for the market: grow first, then see how to make money
• User data is a key input for production
– Better end-user experience
– Better proposition towards advertisers and content/service providers
ECORYS
eConomics


The digital economy
Digital business models
How do they compete?
• Create a multiplier by linking multiple platforms
– Enhanced end-user experience
– One-stop-shop for advertisers and content/service providers
• Compete on the basis of innovation
– Concentrated markets = high profits = new entry
– Entry on the basis of innovation
– Potential for disruptive innovators is higher than in other markets (Moore's law)
– Digital giants are borne to innovate (only the paranoid survive)
– The boundaries of the market change very quickly.
ECORYS
eConomics

The role of competition policy

Policy problems
An overview

- **Digitalisation challenges many existing policy frameworks**
  - Including competition policy,
  - but also consumer protection, privacy, taxation, intellectual property rights, etc.

- **Ten problems identified**
  1. digital monopolies can hamper **competition and innovati**
  2. digital monopolies can **monopolise** other markets;
  3. digital monopolies have an incentive to **lock-in** ers;
  4. digitalisation causes problems related to **and data protection**;
  5. geo-blocking may hamper the **Di gle Market**;
  6. **patents** can be used to pr cess to technology;
  7. violation of **net neutr** ing a negative impact on market dynamics;
  8. **State aid** for h d deployment can disturb markets;
  9. spectru **s** potentially create/raise entry barriers; and
  10. t **ing/avoidance** potentially distorts competition.

Not all of these challenges require the use of competition policy instruments

ECORYS

The role of competition policy

Challenges for competition policy
Anti-trust risks

- **The first three problems are closely related**
  - Large platforms may **lock in end-users** and make themselves indispensable,
  - Once they have made themselves indispensable, they may **hamper competition and innovation**
  - not only in their own markets, but potentially also in other markets via **leveraging of market power**

- **Yet, it is difficult to distinguish anti-competitive motives from normal business strategies and costly to make a mistake**
  - The digital economy is all about future markets,
  - Wrongly labelling behaviour as anti-competitive may hamper innovations

ECORYS


The role of competition policy
Challenges for competition policy
In defining markets and assessing dominance
• When applying competition law, competition authorities are faced with a different set of challenges.
– These challenges involve the analytical steps and instruments
1) market boundaries
2) market power
3) anti-competitive behaviour
– the traditional step-by-step analytical approach may not work because of strong dynamic feedback effects running from firm behaviour to market structure.
– For the same reasons, market shares or profit margins are not always useful or helpful for determining market power.
– The delineation of relevant markets is particularly challenging because:
◦ more than one market is relevant with multi-sided platforms,
◦ the reliance on price based indicators is vulnerable as many digital services are zero priced,
◦ boundaries between markets are fluid.
ECORYS


The role of competition policy
Challenges for competition policy
In defining markets and assessing dominance
• In response to these challenges, competition authorities may want to:
– take business models as a starting point to understand the nature of competition and the market in a particular situation (follow the money)
– rely less on traditional indicators such as market shares or profit margins, more on indicators that inform about contestability
– follow a future-oriented approach = following a cautious approach and relying on self-correcting powers of digital markets that make permanent harm less likely
– involve more external IT experts to help them to understand better business models and future trends
– cooperate with competition authorities from various nations/continents while the digital economy (and thus the relevant geographical market) has become worldwide in scope.
ECORYS

The role of competition policy

Challenges for competition policy
In defining markets and assessing dominance

- **In response to these challenges, policy makers can:**
  - draft a guideline/guidance paper on assessing competitive restraints in digital markets;
  - review existing guidelines on horizontal mergers, in which particular attention should be paid to:
    - mergers involving non-transaction markets with indirect network effects;
    - defining new metrics used in setting the threshold values for determining when a merger needs to be notified; (e.g. the number of users)

ECORYS

The role of competition policy

Other competition problems
Clear role for competition policy instruments

- **State aid for broadband deployment unnecessarily disturbing market dynamics.**
  - The Commission recognised the increased chances to distortive effects of State aid in the case of local broadband deployment.
  - The Commission has issued (clear) Broadband State aid guidelines.
- **Net neutrality**
  - ISPs exploiting a potential gatekeeper position vis-à-vis digital service providers.
  - Use of Article 102 TFEU to establish whether traffic management techniques are used in an anti-competitive manner.
  - Policy makers need to rely on competition authorities until a clear line of argumentation has been developed that specifies if and how ex post control for anti-competitive use of traffic management techniques might have a long-lasting/irreversible impact.

ECORYS

The role of competition policy

Challenges for other policies

And there is a role for competition policy instruments?

- **Standard Essential Patents (SEPs) being used to prevent access to technology via patent injunction.**
  - Article 102 TFEU can be used because an injunction involving SEPs **forecloses** an entire market.
  - However, competition law struggles with the **lack of clarity** about FRAND definition.
  - Policy action needed on the clarification of rules and definitions.
- **Tax planning and avoidance having the potential effect of distorting competition**
  - State aid rules apply where tax rulings constitute State aid (not a durable solution).
  - A legislative and/or policy action is necessary along the lines of already existing Commission proposals.

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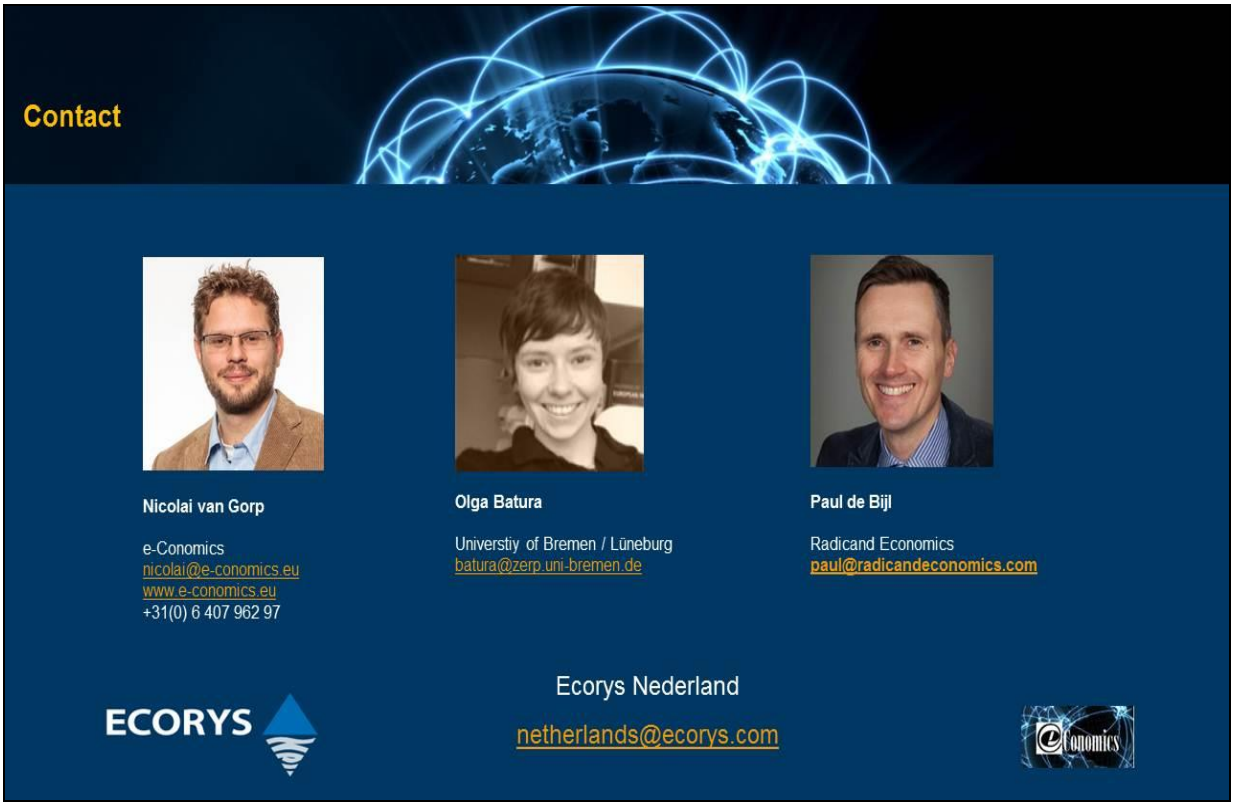
The role of competition policy

Challenges for other policies

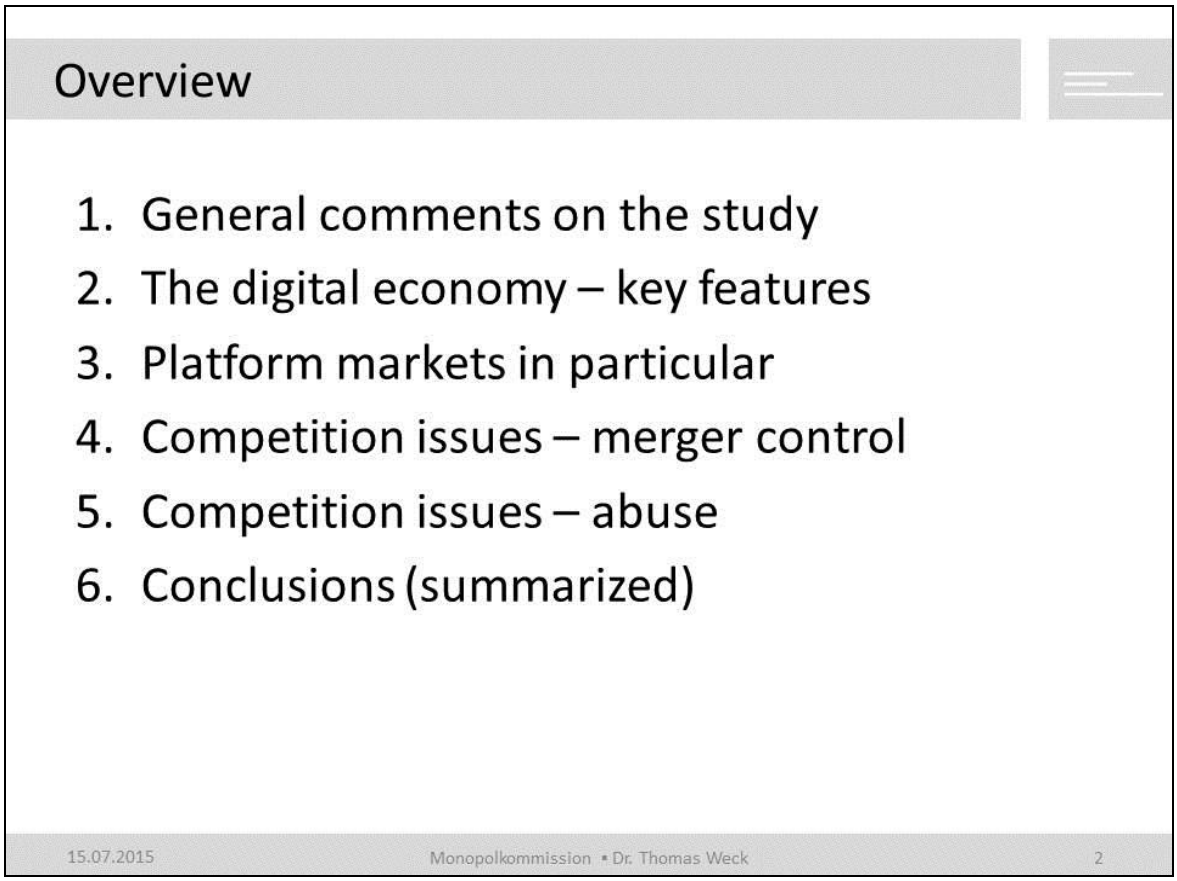
No / limited role for competition policy

- **Privacy and data protection issues**
  - Falls outside the scope of competition law
  - Requires a change in data protection and privacy regulation
  - Pay attention to the impact on competition between platforms
- **Geo-blocking hampering the Digital Single Market**
  - Article 101 and 102 TFEU may be used when restrictions are imposed by dominant companies
  - Policy action in the field of copyright law is preferred to an intervention by competition authorities
- **Spectrum auctions raising entry barriers into telecom markets**
  - Competition authorities should do nothing beyond the monitoring of collusive practices in advance of and/or during an auction.
  - Policy makers can introduce countering measures in the design of auction.

ECORYS


Contact
Nicolai van Gorp
e-Conomics
nicolai@e-conomics.eu
www.e-conomics.eu
+31(0) 6 407 962 97
Olga Batura
Universtiy of Bremen / Lüneburg
batura@zerp.uni-bremen.de
Paul de Bijl
Radicand Economics
paul@radicandeconomics.com
ECORYS
Ecorys Nederland
netherlands@ecorys.com
e-conomics

3.2. Thomas WECK



1. General comments on the study (I)

- Study is a valuable and in-depth contribution to a debate that has been going on for quite a while
- To illustrate the complexity of the debate, we only need to consider the questions that have to be answered:
  - What is the matter: competition policy, industrial policy, consumer & privacy policy?
  - Who is competent: legislation or enforcement bodies?
  - Which level is competent & has to take action: national, EU, or international level?
  - What action is needed: leave market as it is or do something about it?

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1. General comments on the study (II)

- Does the study address all relevant issues? Well, let's consider two additional questions:
  - What is the matter: competition policy, industrial policy, consumer & privacy policy?
  - When do we have a matter (i.e., at which point in time)?
  - Who is competent: legislation or enforcement bodies?
  - Which level is competent & has to take action: national, EU, or international level?
  - What action is needed: leave market as it is or do something about it?
  - When taking action, do we need novel instruments?

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2. The digital economy – key features

- Dynamic development
  - Internet makes information easily accessible (→ importance of big data processing)
  - Internet lowers transaction costs (→ customised products; new markets)
- Platforms: web nodes (= intermediaries) that bring users together
  - With parallel interests (e.g. communication)
  - With complimentary interests (e.g. sellers/buyers)
- Multiple links to the "real" economy
  - Internet of things
  - Brick & mortar vs. online shops
  - Print books vs. eBooks
  - Taxis/hotels vs. share economy services (e.g. Uber, Airbnb)
  - Traditional TV vs. streaming services (e.g. Netflix, Youtube)
  - Banks vs. crowd financing, etc.

→ Risk of competition distortions unless market regulation / enforcement is continuously adapted to market evolution

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3. Platform markets in particular

- Tendency towards concentration? – 5 factors
  - Network effects and other factors making platform attractive for users
  - Scale effects enabling platform operator to provide services more efficiently
  - Restrictions of use, e.g., where platform targets small user group (= small market volume)
  - Potential to differentiate own platform from competing platforms (e.g., to become more attractive)
  - Possibility for users to use several platforms in parallel (multi-homing) or to switch between platforms (↔ lock-in)

→ Where platform markets tend towards concentration, protecting the platforms' trading partners (e.g., content providers, users) against abuses of market power is particularly important

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4. Competition issues in platform markets – merger control

- Target undertaking may not have enough sales in EU to meet notification thresholds. Problem if this is a result of platform structure, e.g.:
  - Target has its sales outside EU, or
  - Target defers turnover generation to time where market has tipped in its favour

  → **Monopolies Commission** recommends amending the notification thresholds in Reg. 139/2004
- Market definition: platforms create interdependencies betwen markets (allowing, e.g., for unpaid user services), which must be taken into account
- Competition assessment: need to distinguish between platform-based market concentration and "significant impediment to effective competition"
- Role of access to data: can an undertaking without market power identify lucrative future markets and to occupy them (≈ pre-emptive merger)

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5. Competition issues in platform markets – abuse

- Abuse of a dominant position (Art. 102 TFEU)
  - Exclusionary (foreclosure)
    - Access restrictions (= exploitation of gatekeeper function)
    - Leveraging of market power
      - Favouring own services
      - Exploitation of third-party content and data to the detriment of competitors
      - Impeding supplier changes by customers (advertisers/users)
  - Exploitative
    - Exploiting third-party content/data
    - (Actively) hindering customers from switching suppliers

→ Substantive competition rules (Art. 102 TFEU) sufficient, but it may be necessary to strengthen IP right protection for content providers and consumer/data protection for users

→ Commission enforcement may have to be streamlined further. Monopolies Commission recommends amending commitment rules (Art. 9 Reg. 1/2003) and using more interim procedures (Art. 8)

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6. Conclusions (summarized)

Monopolies Commission's understanding of the challenges political actors face in the digital economy:

→ EU competition law is mostly fit to meet challenges of the digital economy. Substantive competition rules are sufficient, but Legislature may consider adjusting procedural rules (merger notification thresholds, abuse procedure)

→ EU legislation in other policy areas (e.g., IP and consumer/data protection) should be developed further to better allow other market participants to counter-balance market power of platform operators

→ (National) regulation affecting markets (key words, e.g., geo-blocking, taxi regulation) gets out of pace with the evolution of markets unless regulation itself observes the principle of undistorted competition

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That's it from my side.

Thank you for your attention!

The executive summary and full text of the Special Report by the German Monopolies Commission are available via this link:

http://www.monopolkommission.de/index.php/en/reports/special-reports/284-special-report-68

Contact: Dr. Thomas Weck

Monopolkommission T: 0228-338882-44

Heilsbachstraße 16 F: 0228-338882-33

53123 Bonn

E-Mail: thomas.weck@monopolkommission.bund.de

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4. SUMMARY OF THE DISCUSSION

From the presented results of the ECORYS study on '*Challenges for Competition Policy in the Digitalised Economy*'[1] for the ECON Committee as well as the comments and conclusions of the Special Report '*Competition Policy: The Challenge of digital markets*'[2] by the German Monopolies Commission[3] as presented by Thomas WECK it became clear that the outcome of both research projects was similar and in fact complementary to each other. Whereas the ECORYS study focuses on EU competition policy, the Special Report of the Monopolies Commission also takes a look at consumer law, data protection and copyright.

The following main questions were discussed after the presentation:

Markus FERBER started the discussion by asking about the **means of the European Commission** (DG Competition) to react to market behaviour. Thomas WECK explained that, apart from reacting to complaints, Article 8 Regulation No 1/2003[4] allows the Commission to order **interim measures** on its own initiative in cases of urgency due to the risk of serious an irreparable damage to competition; however this tool had not been used very often in the past.

As the ECORYS study suggests paying more attention to the specific characteristics of the digital economy when defining the relevant market, Olga BATURA pointed out that next to the current criteria of market definition, the **business strategy should be taken into account** more prominently. Additionally, questions like the following should also be answered:

- Where do the profits of the respective company actually come from?
- Which companies could be in a position to contest the market position of existing providers?
- Are there any alternative routes for a potentially competing company to reach customers?
- Which entry barriers exist?

Looking at **consumers' perception of the digital business**, Markus FERBER referred to an observation that had come up at the a Workshop the day before[5] that in certain cases consumers are satisfied with the products offered and are not so much aware of potential competition problems. This was the case, for instance, for the convenient product bundle of the Microsoft operating system including a media player or, more recently, using Google's well-functioning search engine to quickly find things on the internet.

Olga BATURA highlighted that in many cases consumers neither realise that they actually pay with their data for certain services nor regard payable services as substitute offers. Therefore it is even more important that competition authorities pay attention to the companies' own assessment as regards competing offers.

Thomas WECK underlined the importance of also looking at **services offered free of charge**, which competition authorities had neglected for quite a while. Furthermore it

[1] http://www.europarl.europa.eu/thinktank/en/document.html?reference=IPOL_STU(2015)542235.

[2] http://www.monopolkommission.de/index.php/en/.

[3] http://www.monopolkommission.de/index.php/en/monopolies/mission.

[4] http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32003R0001&from=EN.

[5] ECON-Workshop on *'Competition Policy: Delivering for Consumers'* on 14 July 2015, see web-stream http://www.europarl.europa.eu/ep-live/en/committees/video?event=20150714-0900-COMMITTEE-ECON.

would be important to have a look at **interrelated platforms**, such as the interlinkages between Google, Bing or Amazon.

With a view to services offered by different platforms, Isabelle BUSCKE of the Federation of German Consumer Organisations (vzbv) argued that a strong **right to data portability** would put consumers in a stronger position and could reduce network effects. Consumers should, for instance, be able to decide with whom they wish to share the history of which offers they browsed and goods and services they bought in the past.

To understand the specificities of digital markets takes some time. ECORYS recommends in the study to make use of additional **IT expertise and intensify international cooperation** on certain cases like Microsoft or Google.

Markus FERBER insisted on the necessity to stick to a **reasonable duration of competition procedures** and to avoid that small competing companies either never get to the market or have to give up their business because of the length of competition procedures. In this context Pal BELENYESI of the ECORYS team brought up the idea of introducing a **deadline for antitrust procedures**, similar to the procedure in merger control. Thomas WECK pointed out that this could prove to be problematic as digital markets were complex and thus difficult to assess. If cases had to be closed in time, abuse could still take place. Olga BATURA added that a fixed deadline could also bear a risk to take a wrong decision because of a looming deadline.

Markus FERBER closed the discussion by thanking the authors and announcing that the ECON Working Group on Competition Policy would follow-up on this topic with the Commission.

5. EXECUTIVE SUMMARY OF THE STUDY

This study describes the challenges that competition policy faces in relation to the digital economy. It explores the specific characteristics of digital economy markets and how these characteristics impact competition policy. This study was well underway when the Commission presented its Digital Single Market (DSM) plans on 6 May 2015[1], including the announcement of an e-commerce sector inquiry. It is expected that the sector inquiry will deliver its first results in 2016. This study already offers a first overview on market developments and its implications for competition policy.

The study focuses on to the economic and legal analysis of competition problems that are caused by the characteristics of the digitalised economy. As such, competition policy and its instruments such as anti-trust laws, merger regulation, State aid, and sector regulation are at the centre of the study. Other policy fields, for instance trade policy, industrial policy and consumer protection fall outside the scope.

The digital economy

The digital economy is unique in a number of ways. Digital services are characterised by network effects that promote concentration of markets. At the same time, service providers have multiple routes available for delivering digital services to end users, which can make the market contestable, meaning that market power can be challenged by entrants more easily and often faster than in more traditional fields of the economy. The combination of network effects and contestability give the sector dynamics that are fundamentally different from other sectors.

Various routes to deliver digital services to end-users

To describe the sector, we use the term **value web** as it better captures the specific characteristics of the sector than the more traditional term value chain. A value web can be seen as **multiple interlinked value chains** that have converged into a web of services and assets. Each service and asset is a node in the web. By using different combinations of nodes there are multiple routes to deliver content or a service to end users. End-users experience this for example because they can watch the daily news via TV, websites, apps and social media, and they choose where they watch the news (at home or outdoors) and on which device (phone, tablet, PC, or TV). Service and content providers have even more choices to make when delivering content or services because this involves several successive steps[2] and each step is often followed by multiple alternatives for organising the next step. Most service and content providers choose multiple options simultaneously[3]. Some companies are notably present at each step and have invested in their own assets. Other companies have specialised in and built assets for only one step. While delivering a service to end-users, companies combine their own assets (like content, brand or apps) with assets of others (like app stores, Internet access, and devices) to create new services.

Some of the key assets can be regarded as a platform. A **platform** provides a (technological) basis for delivering or aggregating services/content and mediates between

[1] See footnote 8 for further references.

[2] These steps include, inter alia, the aggregation of content and developing a service, the aggregation of services, the distribution of services, and helping end-users to navigate through and select services.

[3] For example, a broadcaster (like HBO or Netflix) can make use of the aggregation and distribution services of a cable TV operator (like Liberty Global). Alternatively it can develop its own website or use the aggregation services offered by various App stores and rent server capacity near end-users for distributing the content at high quality (also referred to as a Content Delivery Network or CDN). A company like Google/YouTube has invested in its own CDN. For an illustration, also see figure 1.

service/content providers and end-users[4]. The digital economy can be described as a **complex structure** of several levels/layers connected with each other by an almost endless and always growing number of nodes. Platforms are stacked on each other allowing for multiple routes to reach end-users and making it difficult to exclude certain players, i.e. competitors[5].

Digital business models and strategies

There are basically three different platform based business models: the subscription model in which the end-users pays for a service (like Netflix); the advertisement model in which the end-users provide revenues indirectly by being exposed to advertising (like YouTube); and the access model in content or app developers pay to reach end-users (like an App store).

A common characteristic of these platform based business models is that they are all based on exploiting **network effects** which may be direct or indirect. The direct network effect means that a platform becomes more attractive for consumers if the total number of consumers grows. The indirect network effect means that a platform becomes more attractive for consumers (service/content providers) if the number of service/content providers (consumers) grows. Markets that exhibit such network effects have a tendency to high concentration or even tip in the sense that the winner takes all. The reason is that while a particular platform grows, the network effects make it increasingly difficult for competitors to challenge the position of that platform. As such, first-mover advantages can make huge differences and the competitive game may result in a *winner-takes-all* outcome.

Irrespective of the business model used, many online business models depend on attracting the attention of end-users. As such, they compete with each other for an audience. Price does not always appear as clearly in the marketing mix of online business models because it is not always profitable to charge a (direct) price to end-users. There is often more to be gained from selling access to the audience to advertisers. The ability to compete for attention increases when a company has multiple platforms in different areas and creates synergies by linking platforms through user data. By combining user-data from multiple platforms, a multi service/platform operator can optimise the experience for both end-users and advertisers[6]. At the same time, digital platform operators aim at making themselves indispensable for both end-users as well as advertiser and place themselves in a gatekeeper position.

The role of innovation

Gatekeeper positions easily translate into (dominant) positions with strong market power allowing gatekeepers to generate high profits. These high profits create incentives for others to enter the market with innovative ideas and to contest the strong market positions. Once the market has tipped, entry on the basis of copying the incumbent's business model is often not successful. Consequently, entrants seek opportunities to

[4] Obvious examples of platforms are Operating Systems and App stores. Platform roles can also be performed by applications (such as the web browser), websites, social networks, and games. Sometimes the platform is strongly interwoven with the electronic device (TV-set, handset, game computer, etc.).

[5] For example, Samsung has put a software layer on top of the Android system on which its TV's are running. This puts Googles App store out of reach of consumers with a Samsung TV (they have to use Samsung's App store). By plugging Google's Chromecast in the USB drive of the Samsung TV, the end-user can 'return' to Google's environment. Another example is the PlayStation App (available in the App stores of Google and Apple) that allows users to enter the Sony PlayStation environment with their smartphone or tablet.

[6] Consumers using various services from only one company allow this company to develop detailed user profiles and use these to optimise the experience for end-users. At the same time, advertisers are offered a one-stop-shop that allows for targeted ad campaigns to specific end-users and reach those end-users independent of what kind of service/platform they use.

differentiate by responding to the heterogeneity of consumer preferences and they develop business models that aim to disrupt existing markets[7]. Moreover, the challengers have an increasing variety of ways to reach end-users which makes it easier for them to bypass gatekeeper positions.

While it is not difficult to enter the market, the challenge is to survive and to grow as any initiatives will fail. But the presence of a potential successful disruptive innovator among the many initiatives drives digital companies to prepare for the unexpected through constant innovation in all possible areas: new techniques, new products, new sales channels, new customers, etc., including new combinations of the items mentioned before. As both incumbents and entrants constantly innovate, the boundaries of the market are constantly redefined.

Control the access to data and technology

Personal data is of strategic value and large platforms are often not willing to share personal data. Consequently, the interoperability of large platforms from different operators is low. The lack of interoperability prevents multi-homing (using multiple platforms simultaneously) and locks-in end-users at both sides of platforms. Consequently, it helps large platforms to maintain their market position by creating/maintaining/raising entry barriers that result from network and lock-in effects. Without interoperability, large incumbent platforms face a lower threat of entry and have fewer incentives to keep innovating.

Another way to defend a gatekeeper position involves the control over access to technology. As such, patents play a prominent role in the battle for the leadership in OS markets as they grant control overs access to technology and standards.

The role of competition policy

The fast developments in the digital economy challenge existing policy frameworks. This includes competition policy, but also policies with respect to (inter alia) consumer protection, privacy, taxation, and intellectual property rights. While current policies are being challenged, the public values they primarily aim to preserve may be at stake. In addition, these fast developments may result in competition problems.

We discuss ten problems specifically related to the characteristics of the digital markets that are either caused by or result in a competition problem. These problems are that:

1. digital monopolies can hamper competition and innovation;
2. digital monopolies can monopolise other markets;
3. digital monopolies have an incentive to lock-in customers;
4. digitalisation causes problems related to privacy and data protection;
5. geo-blocking may hamper the Digital Single Market;
6. patents can be used to prevent access to technology;
7. gatekeeper positions of Internet Service Providers (ISP) may have a negative impact on market dynamics;
8. State aid for broadband deployment can disturb markets;
9. spectrum auctions potentially create/raise entry barriers; and that
10. tax planning/avoidance potentially distorts competition.

The horizontal conclusions that we draw from the analysis of these ten problems is that competition authorities and policy makers should focus on preventing the creation of entry barriers, facilitate entry into markets, and foster innovation. Competition authorities should have a cautious attitude towards actual competition problems and to rely on the self-

[7] Examples are the introduction of the web browser, the smartphone and the App-stores that led to new business models successfully contesting Microsoft's strong market position.

correcting powers of the market, provided that certain public values such as taxation, privacy and security are protected by appropriate (other) policy frameworks. If the latter is not the case and this causes competition problems, competition policy instruments can sometimes be used to temporarily fix the problem if changing respective adequate policy fields is problematic. Below we elaborate on the analysis.

Problems involving particular challenges for the application of competition law

The first three of the ten problems concern the tendency of digital markets to tip, resulting in digital monopolies. The three problems are closely related: once digital giants have placed themselves in a gatekeeper position, they **lock-in end-users** at both sides of the platform and aim to make themselves indispensable; once they have made themselves indispensable, large digital giants could potentially **hamper competition and innovation**; not only in their own markets, but also in other markets via the **leveraging of market power**.

In relation to these problems we discuss pre-emptive mergers as potentially problematic. A pre-emptive merger is aimed at preventing a (potential) competitor from disrupting ones business model by acquiring the company. Similarly, leveraging of market power and entering into a set of multiple exclusive agreements are potentially problematic behaviours when they close down or prevent the creation of alternative routes to reach end-users. Such behaviours would fall within the reach of anti-trust law (Articles 101 and 102 TFEU and merger control regulation).

It is difficult to distinguish anti-competitive motives from normal business strategies; particularly because it involves future markets. Wrongly labelling behaviour as being anti-competitive may have adverse effects on the dynamics in the market. For example, while there may be pre-emptive motives for the acquisitions of small company, competition authorities should remain cautious not to consider all acquisitions as anti-competitive. This might have serious adverse effects on innovations as the prospects of a take-over forms an incentive to innovate.

When applying competition law, competition authorities are faced with a different set of challenges. These challenges involve the analytical steps and instruments used for assessing the relevant market and dominance. The analytical steps typically start with describing the market boundaries (1), followed by an analysis of market power (2) and of whether the behaviour of firms is anti-competitive (3). Digital firms, however, constantly redefine the boundaries of the market by competing largely on the basis of innovation. It follows that in digital markets, the traditional step-by-step analytical approach does not work because of strong **dynamic feedback effects** running from firm behaviour to market structure. For the same reasons, market shares or profit margins are less useful for determining market power.

In response to these challenges, competition authorities may want to:

- take the business models as a starting point, focussing on how a company makes profits and which other companies or business models may steal that profit away. Such approach integrates the market definition and market power assessment stages. It allows to better account for interdependencies between multiple platforms and the interactions between firm conduct and market boundaries;
- rely less on traditional indicators such as market shares or profit margins. Competition authorities should rather focus on indicators that inform about contestability, such as the presence of entry barriers, the availability of alternative routes to reach end-users (including the presence of measures aimed at locking-in end-users), and the degree of innovation in unexplored technologies/services;

- follow a more future-oriented approach because of the central role of potential competition. In practice this means following a cautious approach and relying on self-correcting powers of digital markets that make permanent harm less likely;
- involve more external IT experts to help them to understand better business models and future trends;
- cooperate with competition authorities from various nations/continents while the digital economy (and thus the relevant geographical market) has become worldwide in scope.

In order to support competition authorities, policy makers may:

- potentially mitigate competition problems by amending data protection regulation. Introducing data portability as a right to transfer one's own data from one platform to another (in a commonly-used electronic format) would have a positive impact on the interoperability between platforms, lower switching costs, and improve the competitive process;
- draft a guideline/guidance paper on assessing competitive restraints in digital markets;
- review existing guidelines on horizontal mergers, in which particular attention should be paid to:
  - mergers involving non-transaction markets with indirect network effects;
  - defining new metrics used in setting the threshold values for determining when a merger needs to be notified;
  - developing the concept of *'maverick firms'* in the context of dynamic markets.

Other problems to be addressed by competition policy

Two problems that we discuss seem to involve little or no challenges for competition authorities in addressing these.

The first problem involves the risk that **State aid for broadband deployment can unnecessarily disturbs market dynamics**. Reasons that State aid may be distortive are that 1) government decisions experience electoral pressures, 2) governments are not fully informed (asymmetric information), and 3) that governments are not free from being lobbied. In relation to broadband markets, all of these factors are prominently present at local level governments. Recognising these risks, the European Commission issued the Broadband State aid Guidelines. To ensure proper implementation of these guidelines, the following could be done:

- Despite scarce resources, competition authorities should screen the behaviour of governments and check whether it is in line with the Commission's Broadband State aid Guidelines.
- No additional policy action is needed in addition to the Commission's Broadband State aid Guidelines.

The second problem involves the risk that **ISPs may exploit a potential gatekeeper position vis-à-vis digital service providers**. The biggest concern raised by proponents of net neutrality is whether an obligation to pay for access to customers would strangle at birth the business plans of innovative internet start-ups and consequently deprive users of the next great innovation. The following could be done to mitigate the risk:

- Competition authorities can use Article 102 TFEU to establish whether traffic management techniques are used in an anti-competitive manner.

- Policy makers need to rely on competition authorities until a clear line of argumentation has been developed that specifies if and how *ex post* control for anti-competitive use of traffic management techniques might have a long-lasting/irreversible impact.

Competition policy addressing problems caused by other policies

Two competition problems that we discuss may require an intervention by competition authorities. These problems originate from a limited effectiveness of other policies in addressing non-competition problems. Changing these other policies would be a first-best solution, but it is difficult to adjust these policies because of practical/political reasons.

The first problem is that **Standard Essential Patents (SEPs) are potentially used to prevent access to technology via patent injunction**. The problem is caused by a lack of clear licensing terms and a lack of a consistent approach to the enforcement of the rights of patent holders. It is not always clear in patent injunction cases whether the rights of the patent holder are truly violated, or whether the patent holder aims to hinder its competitor by denying access to a technology. The following could be done to mitigate the risk:

- Competition authorities are equipped to address this challenge because an injunction involving SEPs has the effect of foreclosing an entire market. However, competition law struggles with addressing the lack of clarity about the definition of FRAND terms.
- Policy action on the clarification of rules on patent disclosure and licensing on FRAND terms would be a first-best solution to increase legal certainty.

The second problem is that **tax planning and avoidance have the potential effect of distorting competition**. Within the boundaries of the law, multinational enterprises engage in tax planning, i.e. shifting profits to low-tax jurisdictions even if the actual economic activities are not performed there. Tax competition between countries is a root cause, leaving gaps between different tax systems. Tax competition is harmful if it leads to a race to the bottom on tax rates and/or if it results in an erosion of the tax base. Tax competition thereby lowers public finances and/or shifts the tax burden to less mobile factors of production (e.g. labour) or less mobile companies. Notably SMEs are among the less mobile companies. The following could be done to mitigate the risk:

- Competition authorities can use State aid rules to control for harm to competition among enterprises where tax rulings constitute State aid. In general, competition law cannot provide a durable and universal solution for the tax planning problem.
- A legislative and/or policy action is necessary along the lines of the already existing proposals for a Common Consolidated Corporate Tax Base, automatic exchange of information between tax authorities of Member States about tax rulings, and the Code of Conduct concerning business taxation.

Problems to be addressed by other policy fields

Three problems should primarily be addressed by other policies:

The first problem concerns **privacy and data protection**. Consumers are not always aware that digital service providers collect and analyse private data; nor are consumers aware of the security risks involved when that data falls into the wrong hands. Even if consumers are aware, it is not clear to them how firms use or protect the information they retrieve via online transactions. The following could be done to mitigate the risk:

- Competition authorities can do little to address to the problem because the problem exceeds their legal mandate.

- Policy action should aim at adapting data protection and privacy regulation. While doing so, the impact on the competitive process between digital platforms should be specifically analysed in the impact assessment of a related policy proposal[8].

The second problem is that **geo-blocking may hamper the Digital Single Market**. The ability to access content everywhere throughout the EU is not always hindered by a lack of network or platform interoperability. The ability to access content is often prevented by geographical restrictions imposed by the owners of Intellectual Property Rights (IPR) in the licensing agreements. The following could be done to mitigate the risk:

- Competition authorities can use Article 101 and 102 TFEU to address the imposition of geographical restraints as it has the effect of recreating national barriers on the single market and eliminating competition between broadcasters. However, competition law can only be used when restrictions are imposed by dominant companies.
- Policy action in the field of copyright law is preferred to an intervention by competition authorities because the problem directly results from flaws in the legal framework governing copyrights[9].

The third problem relates to the possibility that **spectrum auctions may raise entry barriers into telecom markets**. The allocation of spectrum rights is typically orchestrated by means of an auction. Mobile operators bid against each other to obtain the best possible combination of spectrum rights. The amounts eventually paid for these rights often seem very high (several billion euros) and may raise concerns about auctions unnecessarily creating/raising entry barriers. The following could be done to mitigate the risk:

- Competition authorities should do nothing beyond the monitoring of collusive practices in advance of and/or during an auction.
- Policy makers can mitigate the problem of entry barriers by introducing countering measures in the design of auction. Such measures include, inter alia, imposing spectrum caps, reserve blocks of spectrum for new entrants, and impose role out obligations on rights holders.

- **To summarise**, the digital economy creates a number of potential problems. Not all of these problems need to - or can - be solved by competition policy. If a problem requires the application of competition law, the characteristics of the digital economy create a new set of challenges. These challenges do not involve the basics of competition law, but the analytical steps and instruments used for defining the market and assessing dominance. As such, digitalisation does not require a complete overhaul of competition law or the creation of sector specific rules. It rather requires competition authorities to follow a different approach when analysing particular cases. These insights not only apply to analysing digital markets but to the whole economy because the digital economy is increasingly interwoven with the physical and/or offline economy.

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[8] European Commission (2015) - the recent European Commission staff working document on *A Digital Single Market Strategy for Europe* SWD(2015) 100 final - indicates that once the General Data Protection Regulation COM(2012) 11 final is adopted, most of the problems will be addressed. Notably the right to data portability and the right to be notified when the security of personal data is breached are promising ideas reflected in the Regulation.

[9] The staff working document SWD(2015) 100 final recognises the limitations of competition law as well as the limitations of the Services Directive. The working document is not concretely spelling out specific actions: *'Geo-blocking may be examined from a competition law perspective, as well as from other legal perspectives (e.g. non-discrimination and freedom to provide services, enforcement of consumer rights, commercial practices and contract law)'*. See European Commission (2015, pp. 24-25).

PRESENTATION

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ECONOMIC AND SCIENTIFIC POLICY

Challenges for Competition Policy in a Digitalised Economy

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Altiero Spinelli
1E2

Committee on Economic and Monetary Affairs (ECON)

Participants needing a badge must register providing their name, full address, date of birth, nationality and passport or ID number by 9 July 2015 to: *guy.tachelet@ep.europa.eu*

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