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Copenhagen Economics

Online Intermediaries

Impact on the EU economy

EDiMA
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Preface

This study was commissioned by EDiMA and prepared by Copenhagen Economics. The goal of the study is to contribute to the debate on the future of Europe's digital economy by assessing the economic contribution of online intermediaries in terms of European growth.

A steering group of EDiMA members as well as the broader membership provided valuable comments during our work, for which we are grateful.

DISCLAIMER: This study has been funded by EDiMA. The report reflects the views only of the authors, and neither EDiMA nor its members can be held responsible for any use which may be made of the information contained therein. The description of the EU's liability regime applying to online intermediaries is only meant to provide a basic understanding of this regime and does in no case constitute a legal analysis of it.

About EDiMA

EDiMA is the European trade association representing online platforms. It is an alliance of new media and Internet companies whose members include Airbnb, Allegro Group, Amazon EU, Apple, eBay, Expedia, Facebook, Google, King, LinkedIn, Microsoft, Netflix, PayPal, Twitter, Yahoo! Europe, Yelp.

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Executive summary

The Internet as we know it today relies on the efficient operation of *online intermediaries*. Online intermediaries provide platforms for and facilitate the exchange of goods, services or information in the online environment. They perform or provide activities such as search, e-commerce, social networks and cloud computing.

The main feature of online intermediaries (in contrast to other online services) is that online intermediaries bring different types of users together in order to enable economic or social interaction.

Online intermediaries - A large and growing part of the European economy

In chapter 1, we look at the combined economic size of the online intermediaries in Europe. We estimate that the total value of goods and services purchased by private households and the public sector through online intermediaries was about **EUR 270 billion in 2014**. This corresponds to **2.5 per cent of total final consumption** in the EU28.

We have compared our estimate in this report with our previous estimates. While it is difficult to delineate the online intermediaries as a distinct group of companies and to estimate the precise size of online intermediaries in Europe, we estimate that online intermediaries have **grown at a rate close to 10 per cent per year** since our 2013 study.

The growth of online intermediaries is expected to continue over the coming years. This is not least because of the diffusion of cloud computing and a rapid growth in e-commerce. European e-commerce turnover has been growing steadily over the years with an annual growth of around 15 per cent. This growth is likely to continue in the years to come.

Online intermediaries - Helping European SMEs to grow

In chapter 2, we look at how online intermediaries help Europe's small and medium-sized enterprises (SMEs) to grow. SMEs are the backbone of Europe's economy: SMEs have created around 85 per cent of the new jobs in the EU in the last five years and now account for two-thirds of the total private sector employment.

However, Europe's SMEs face various barriers to growth, in particular when entering new markets. Importantly, online intermediaries help European SMEs overcome these barriers by making it easier to enter a market and reach consumers. Online intermediaries help smaller companies achieve "big company" benefits from digitalisation. Online intermediaries allow smaller companies to become early adopters of the new Internet technologies and business models. Furthermore, online intermediaries allow SMEs to enjoy these benefits at a fraction of the cost that they would incur without them.

The results speak for themselves. SMEs that are early adopters of advanced information technologies have created jobs twice as fast and grown revenue faster than SMEs with a

slower adoption rate. Research based on European data shows that online marketplaces reduce the trade costs for SMEs. As a result, more SMEs can engage in exporting. Online intermediaries also allow each SME to serve more export markets. Another recent EU study examines the impact of a well-functioning liability regime for Internet intermediary start-ups and found significant impact on the viability and success of start-ups.

The chapter further provides real life examples of SMEs that benefit from online intermediaries. SMEs most notably benefit in three key aspects. *Lower costs of selling*: Online intermediaries facilitate low cost selling, which means that the amount of capital required to start and grow a business is reduced. *Reaching more customers*: Online intermediaries enable SMEs to reach more potential buyers, which reduces the need for new capital investments and resources required to grow to scale. *Building trust*: Online intermediaries help SMEs build a trusting relationship with their customers.

Overall, we find that online intermediaries reduce important barriers to the growth of SMEs. It is therefore important to the growth of Europe's SMEs to provide online intermediaries with a policy framework flexible enough to allow them to continue to help SMEs to grow.

Online intermediaries - Bringing benefits to European consumers

Online intermediaries also unlock benefits for consumers.

Firstly, online intermediaries benefit consumers through the traditional channels in standard consumer theory such as more price transparency, more choice and time savings. Some of these effects are a "mirror image" of the effects on SMEs. For example, by bringing down barriers to entry and growth for SMEs, online intermediaries provide consumers with more choice and, in particular, more niche products, which benefit consumers. Online intermediaries allow consumers to access an enormous amount of information very quickly and locate sellers beyond those companies that are locally accessible.

In addition, online intermediaries can work as a source of income for individuals, as they can offer their own products or services to other users quicker than ever before. Lastly, online intermediaries affect people not only as 'consumers' but also as citizens whose utility and well-being depend on factors beyond those that can be captured by standard economic measures. For example, online intermediaries can help support important society goals such as democracy or freedom of speech and can enable social capital formation. These effects are all part of online intermediaries' broader impact on EU consumers.

It is difficult to quantify all of these benefits, especially those that go beyond traditional economic measures. In chapter 3 we present quantifications of specific examples of some of the benefits. In particular, we show that online marketplaces enable lower prices to a total value of EUR 1 billion while an increased availability of niche books result in benefits of EUR 4-5 billion for European consumers. Free social networking services, wikis, generalised search services and comparison shopping generate a consumer surplus of EUR 22 billion. Lastly, we show that online search platforms generate time savings worth EUR 140 billion for European consumers.

Online Intermediaries – an enabling policy environment?

Finally, we discuss the policy environment in which online intermediaries operate. We furthermore validate that the liability regime set out in the EU e-commerce Directive is an important factor supporting the role online intermediaries are playing and the activities they are enabling. Indeed, the online intermediaries' contributions to the economy would not be possible at the current level without the liability regime as it is currently designed.

When assessing the role of online intermediaries in the economy and the appropriate policy framework, we therefore argue that it is essential to preserve the limited liability regime governing online intermediaries in the EU in order to underpin the economic growth generated by online intermediaries and to strengthen their facilitating abilities to support the European economy. Conversely, any adverse changes to the liability regime – such as increased legal obligations on online intermediaries – could have a handicapping effect on innovation and the activity of online intermediaries, putting this value at risk, and based on the analysis in this report, we would strongly recommend not to re-open the e-commerce Directive or impose new monitoring requirements on online intermediaries.

European online intermediaries are already regulated in many ways through numerous EU directives and regulations. A regulatory mapping of the Regulations and Directives applicable to online intermediaries identified more than 40 EU Directives and Regulations covering many different aspects of the activities conducted by online intermediaries ranging from consumer rights to data retention and many more aspects. Already today online intermediaries are not operating in a regulatory void and are subject to a large number of regulations of covering all aspects of their activities.

Some European policy makers are now considering additional regulation of online intermediaries. The European Commission has decided to launch a comprehensive assessment into the role of online intermediaries in the economy. We see three main questions for consideration before additional regulation in the market for online intermediaries should be considered:

- *Firstly*, it is widely accepted that regulatory intervention of this kind should only be considered where there is clear risk of a serious loss of economic efficiency and consumer welfare; where other solutions are not available; and where it is clear that the regulatory intervention itself, with the distortions that it can create, will not make the situation worse than it would otherwise be.

- *Secondly*, as our study shows, it is inherently difficult to define the online intermediaries as a special class of companies, and they continue to evolve and change in a variety of ways. Thus attempting to create legislation to cover this practically undefinable class of companies would be extremely challenging.

- *Thirdly* and finally, the online intermediaries are still young companies and competition in the market is very dynamic. There is intense rivalry between the large online intermediaries and rivalry with a number of other more specialised platforms for the attention of users. As shown in this report, online intermediaries are creating value and online intermediaries continue to innovate at high speed.

A way forward

Online intermediaries have played and will continue to play an important role to make the Digital Single Market (DSM) a reality in Europe. Online intermediaries thrive thanks to a large single market throughout Europe (and indeed globally) so that the economies of scale inherent to the Internet can bring the fullest benefit to the users – whether individuals or companies.

Thus the European Commission's DSM efforts will naturally be enhanced via the action of online intermediaries - insofar as it can continue to bring down barriers and burdens that fragment the European markets. The development of an open DSM is the key enabling policy framework for online intermediaries.

The intermediaries' contributions to the economy would not be possible at the current level without the liability regime as it is currently designed. Preserving and improving the regulatory framework governing online intermediaries in the EU will underpin the economic growth we see being generated by online intermediaries.

Chapter 1

Online intermediaries in the EU economy

The Internet as we know it today relies on the efficient operation of *online intermediaries*. Online intermediaries provide platforms for and facilitate the exchange of goods, services or information in the online environment. They perform or provide activities such as search, e-commerce, social networks and cloud computing.

1.1 Online intermediaries – who are they?

Online intermediaries do not all belong to the same sector, and they cover a vast array of user industries using a variety of business models. Their classification and definition is an open and evolving question. The definition is as open and evolving as European (and global) citizens' use of the Internet. The definition is as dynamic as the possibilities for companies to reinvent their business digitally or develop new businesses online. The common factor between all online intermediaries is their facilitation role in bringing together service providers and users online. Examples of online intermediaries include *inter alia*:

- *e-commerce platforms* such as Allegro, Priceminister, or eBay. These platforms allow others to set up shops on their platforms in order to make their products and services available to Internet users in the broadest sense; some retail companies such as Asos, Tesco Online and Zalando have also opened intermediary operations and allow other companies to set up shop on their sites.
- *Social networks* such as meinVZ, Nasza-klasa, Netlog, Facebook, or Twitter. These platforms allow Internet users (which can be citizens, SMEs, media and other companies) to find and exchange information in social circles.
- *Search providers* such as Seznam, Bing or Google. These intermediaries make information supplied by third parties accessible and searchable for other Internet users.
- *Entertainment services* such as Soundcloud, King, and Spotify. These intermediaries provide access to usage, purchase and user-based sharing of music, movies, games and other forms of online entertainment.
- *Comparison tools/agents* such as Expedia, Trivago and Skyscanner. These intermediaries allow their users to search for specific information such as travel tickets. Some sites also provide services such as the possibility to book directly on the site.

There are hundreds of examples of online intermediaries and some these are depicted in Figure 1, and more companies continually emerge. While an exhaustive list of online intermediaries is likely unobtainable (and probably rapidly outdated as online use evolves), the common feature for all these activities is that they provide a platform on which others can interact. Specifically, online intermediaries provide such a platform for online exchange, without taking title of the items or information exchanged.

Figure 1 Examples of online intermediaries

Source: Copenhagen Economics

In practice, items or information are exchanged between two or more third parties via the platform, and the intermediary has no direct dealings with the goods, information or service exchanged via their platform (albeit within the broad framework of user agreements where available).

According to the OECD, online intermediaries *"bring together or facilitate transactions between third parties on the Internet. They give access to, host, transmit and index content, products and services originated by third parties on the Internet or provide Internet-based services to third parties"*.[1]

This definition is inherently blurry, and intermediaries continue to evolve and change in a variety of ways. For example, some online intermediaries are both an online store, a platform for third parties to sell their products, and a host for third party content (since it allows users to post their own comments). Many online intermediaries also provide a search function that enables users to search through their site or their network.[2]

1.2 Online intermediaries – their role in the economy

Online intermediaries provide services to other companies, for example when small businesses use an online marketplace to sell their products or when small businesses place an ad on an online intermediary site.

1 See OECD (2010).

2 A user survey from 2010 in the U.S. showed that one third (up from 13 per cent in 2008) of the respondents (13-64 years old Internet users) used social networks to get to the content they read/browse online. According to McKinsey & Company (2010).

Private households and the public sector alike are customers of online intermediaries, e.g. when a consumer buys a book via an online bookshop, or when government employees perform online searches via a search engine.

It is difficult to measure the economic impact of online intermediaries. One approach is to measure the value of goods and services purchased by private households and the public sector via online intermediaries.

> *EU households and governments purchased 2.5 per cent of their total consumption via online intermediaries in 2014, amounting to EUR 270 billion*

This approach, which we have chosen here, does not capture to full value that online intermediaries bring to the economy or to the society.

We gathered the necessary information and estimated the value of purchases, which indicates purchases from final consumers (i.e. households and public sector) valued at EUR 270 billion in 2014, corresponding to 2.5 per cent of the total final consumption in the EU28-countries.[3]

Regardless of the measurement method, online intermediaries facilitate a large part of the Internet economy. Our estimates suggest that around 60 per cent of private consumption and 30 per cent of public consumption of goods and services related to the total "Internet economy" go via online intermediaries.

Online intermediaries use different business models including advertising, paid subscriptions, renting hosting space, charging for premium services, commission fees, voluntary donations, or combinations of these. In addition, more complex producer-consumer models are emerging for which the intermediary platform providers may have one revenue stream but the producer-consumers have another. Examples include application developers on Facebook, vendors in Second Life, mod-makers in World of Warcraft, or individuals licensing photographs via Flickr.

1.3 Online intermediaries – how fast are they growing?

Internet use in Europe has grown rapidly in recent years, and a significant amount of this growth has taken place on online intermediary platforms as identified in the box below.

[3] We used estimates of the private and public consumption of 'Internet services' from a series of Internet activity country reports for a set of European countries. First, we estimated the corresponding numbers for the remaining EU countries on the basis of the countries' GDP and share of the population using the Internet. Second, we estimated the share of the total private and public consumption that is facilitated by online intermediaries, based on an estimate of online intermediaries' share of total web sales. The resulting number is not a measure of the value added of online intermediaries but rather a measure of their gross turnover.

Recent growth rates of online intermediates

- The number of active customers on Asos have grown by **47** per cent p.a. since 2010
- Zalando's annual revenues grew by **64** per cent p.a. from 2011-2014
- Spotify's revenues grew by **78** per cent p.a. from 2011-2014
- Soundcloud's revenues grew by **61** per cent p.a. from 2011 to 2013
- Deezer's revenues grew by **45** per cent p.a. from 2011-2014
- Skyscanner's revenues grew by **40** per cent p.a. from 2012-2014
- Video watch time on YouTube has grown **50** per cent over the last three years
- The number of active users on Facebook has grown **25** per cent p.a. since 2010
- The number of active users on Twitter has grown **50** per cent p.a. since 2010 [4]

In order to estimate the growth rate of online intermediaries we have compared our estimate in this report with our previous estimates of the size of the online intermediaries in Europe. As is shown from the examples above, many of the successful online intermediaries grow at an impressive speed. But not all intermediaries succeed, and many new online businesses do not make it.[5] Taking all of these aspects into account, our estimates indicate an overall growth rate for the online intermediaries of around 10 per cent per year since our 2013 study (based on 2012 estimates).[6] This growth rate by far exceeds the growth rates in other sectors and thus indicates that online intermediaries continue to contribute positively to EU growth.

The growth of online intermediaries is expected to continue over the coming years, not in the least as a result of the diffusion of cloud computing and a rapid growth in e-commerce. European e-commerce turnover has been growing steadily over the years, with an annual growth of around 15 per cent, according to eCommerce Europe figures (2015). This growth will continue in the years to come, resulting in European e-commerce sales of EUR 477 billion in 2015, EUR 540 billion in 2016 and EUR 609 billion in 2017.

> *European e-commerce turnover is expected to continue to grow in the years to come, resulting in sales of EUR 609 billion in 2017*

1.4 Online intermediaries – how do the bring value?

In this study, we focus on how online intermediaries bring value to the rest of the economy via the services they provide to households, governments and companies. More precisely, we focus on the value online intermediaries bring to small and medium-sized enterprises (SMEs) and to consumers.

[4] Source: www.youtube.com, www.statista.com, www.asosplc.com, www.skyscanner.net, www.skyscanner.net, www.theguardian.com, www.ft.com, musically.com, www.billboard.com, www.ft.com, www.billboard.com.

[5] According to Eurostat Business Demography Statistics, less than half (45 per cent) of new European companies (online and offline combined) survive for a five-year period, available at http://ec.europa.eu/eurostat/statistics-explained/index.php/Business_demography_statistics.

[6] Copenhagen Economics (2013).

The main feature of online intermediaries (in contrast to other online services) is that online intermediaries bring together different types of users in order to enable economic or social interaction. In the case of e-commerce or online apartment rentals, the groups might be buyers and sellers. In online media, the groups might include consumers, producers of content, and advertisers. What we emphasise is that assembling users - buyers and sellers, consumers and advertisers, groups of friends – involves network effects. The value users assign to the online intermediaries depends on who else is using them.

SMEs face various barriers to growth, in particular when entering new markets. Online intermediaries help SMEs overcome these barriers by making it easier to enter a market and reach the consumers. This is elaborated in chapter 2.

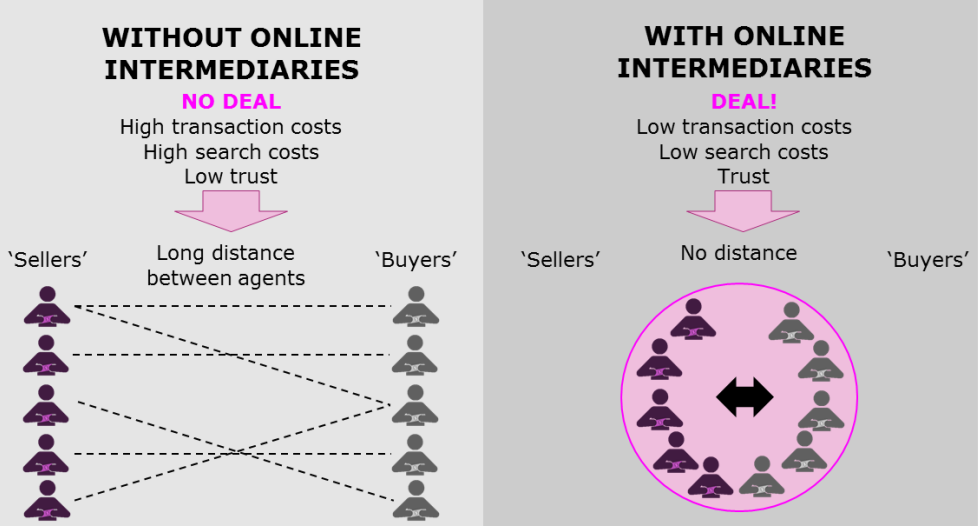
In the same way as online intermediaries help SMEs overcome barriers and thereby create new business opportunities, online intermediaries help consumers overcome different types of barriers and thereby unlock benefits for consumers. This is elaborated in chapter 3.

> *Online intermediaries make markets work more efficiently*

Broadly speaking, online intermediaries make many markets and parts of our society work more efficiently as they 'shorten' the distance between users. When interactions are made more efficient, more interaction will take place as a result of the online service. This holds for both traditional buyer-seller interactions but also for interactions from 'consumer' to 'consumer' on for example social media platforms and sharing economy platforms. Since online interaction is more efficient than offline interaction, more interaction will take place. As an example, ridesharing is not new, it is just more efficient now, and while online intermediaries did not invent the concept of ridesharing, they have developed services making ridesharing work more effectively than in the past.

With online intermediaries such as RelayRides, 'sellers' can easily connect to thousands of potential buyers. Transactions are cheap and trust is established through for example previous reviews of sellers and buyers. In other words, the "distance" from buyer to seller is shortened dramatically. These effects are illustrated in the figure below.

Figure 2 Online intermediaries create value



Note: The words 'buyers' and 'sellers' only serve as examples. In fact, there does not have to be a monetary transaction. The interaction can also be two people connecting on a social media platform etc.

Source: Copenhagen Economics

In addition, online intermediaries share features with other online businesses. Firstly, they are *scalable*. The original service/"code" can service a very large business (when done the right way). Secondly, they are *customised*. Online intermediaries can improve the service to individual needs. Lastly, successful online intermediaries are characterised by *rapid innovation*. New products and services are developed, and, even more importantly, services and products are continuously refined and improved.
This functioning has an impact on consumers and businesses in all areas of our economies. It provides better, easier and cheaper access to goods, services, information and knowledge, and it provides an "outlet channel" for goods, services, information and knowledge for both households and businesses.

1.5 Online intermediaries – and the Digital Single Market?

Online intermediaries will not only be benefitting from a free and open market across Europe with the opportunity to do business anywhere in the EU, they are also helping to create the Digital Single Market (DSM), since, as we demonstrate in this report, online intermediaries are helping SMEs to trade online across borders and thereby helping to bring about the benefits of cross-border online trade in Europe.

Online intermediaries are growing across European borders

There are many examples of European online intermediaries demonstrating that a these companies can grow across European borders, although the DSM is not yet fully developed. These examples show that online firms founded in Europe can grow in Europe, and that many more firms of the same types would benefit further from an open and free digital market in

> *" European online intermediaries are growing across EU borders*

Europe. Here, we highlight two examples, but there are many more.

Case Study: Vente-privee

vente-privee The French online intermediary, *venteprivee*, was founded in Paris in 2001. The company organises sales events that brings together designer brands with potential customers of fashion clothing, accessories, home appliances, sports gear and other products. The firm has organised the sale of end-of-season and overstock inventory problem through an online solution with limited-time sales events on an online intermediary platform. This matches the needs on both sides of the platform. Suppliers need to quickly sell excess inventory and buyers like to get quality products at reduced prices. Today, vente-privee.com does business in eight European countries with operations in the UK, Germany, Spain, Italy, Belgium and Austria, and most recently in the Netherlands.

Case Study: Just Eat

JUST EAT The European online intermediary, *Just Eat*, was founded in Denmark in 2001 and is today headquartered in London. It is an online service that brings small take away restaurants in contact with people who would like to order takeaways from home and allow users to search for take away restaurants to make their choice, order and pay online. The service operate in 13 countries worldwide, including Belgium, Denmark, France, Ireland, the Netherlands, Spain and the United Kingdom.

Online intermediaries give SMEs access to new markets and easier export

One of the key objectives of the DSM is to make cross-border commerce easier, especially for SMEs. Today only 15 per cent of consumers shop online from another EU country. Online intermediaries help to achieve this DSM objective in an indirect way. As we demonstrate in chapter 2, many European online market places are operating as online intermediaries, and these online intermediaries help European SMEs to get online and trade across EU borders.

As recent research shows, online intermediaries help European SMEs with cross-border online sales. A new generation of micromultinational companies is emerging. These small European companies take advantage of significantly reduced impact of distance provided by online market places. These small online businesses build truly international operations that serve customers in an average of 20 to 40 different countries.

Without online intermediaries, European SMEs would find it hard to export because of the costs and because of the difficulties with building trust with customers in other countries. Distance and crossing the border to another EU country has – traditionally and even within the EU - reduced trade significantly. Online intermediaries help European SMEs to achieve some of the advantages from digitalisation that would otherwise be reserved for bigger companies.

> *" Cross-border commerce grows as online intermediaries give European SMEs access to new markets and reduce the cost of exporting*

1.6 Online intermediaries – an enabling policy environment?

In this section, we discuss the policy environment in which online intermediaries operate. In our first report on online intermediaries, Copenhagen Economics (2012), we found that online intermediaries rely on the liability regime enshrined EU e-commerce Directive in order to provide their services openly and in an efficient manner. We elaborate on this below.

Benefits of the liability regime in the EU e-Commerce Directive

Online intermediaries rely on a liability regime in order to provide their services in an efficient manner. This liability regime is enshrined in Articles 12-15 of the EU's e-commerce Directive 2000/31/EC, and it protects online intermediaries from liability for the misuse of their services by users and third parties.[7]

As a result of this provision, it is the users of the online intermediaries – upon exchanging goods, information or services – who are legally responsible for the goods, information or services exchanged.

To provide a parallel example, a telephone network operator is not held legally responsible for illegal activities discussed over its lines, neither is the operator forced to monitor all calls for any such possible activities. Similarly, the EU's e-commerce Directive enables online intermediaries to operate open platforms where users and third parties can search and exchange goods, services, and information.

By way of a further parallel, online marketplaces can in some respects be compared to that of a traditional marketplace. The city mayor makes a square available to merchants, but the city is not held liable for the items traded on that marketplace. However, if the city mayor is made aware of illegal traders on the city square, he/she is obliged to ensure that they are removed and their trading is discontinued.

Similarly, for certain types of activities, in order to obtain the e-commerce Directive's safe harbour, an online intermediary must act expeditiously to remove or disable access to illegal information upon receiving actual knowledge of it.

Since our original study from 2012, several new studies have investigated the limited liability regime for online intermediaries and documented its benefits. One study showed that the limited liability regime is beneficial to Internet start-ups[8] and another study underlined the importance of ensuring a sound limited liability regime to attract investors to invest in the early-stage of online intermediary businesses.[9]

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7 The ECD provides for limitations to liability of intermediaries based on their inherent activities: mere conduit (Art. 12), caching (Art. 13), and hosting (Art. 14).

8 Oxera (2015).

9 Fifth Era (2014).

The economic study on Internet start-ups used data from *inter alia* Germany, and found a significant impact on the viability and success of start-ups from the liability regime. The study found that increased liability protection increased the start-up success rate in Germany by around 9 per cent and profits by 3 per cent.[10]

> *A good liability regime increases the success rate for Internet start-ups*

> *A good liability regime is important to attract early-stage investors*

The study on investment interviewed investors considering early-stage investments in online intermediaries about the importance of various laws and regulations.[11] Investors dislike legal ambiguity, increased responsibility for copyright infringement, and regulations that require personal rather automated monitoring and evaluation.

The safe harbour regime set out in the e-commerce Directive is a pivotal and highly beneficial feature of the Directive, as acknowledged in the Commission's DSM Strategy. The liability regime ensures online intermediaries' ability to support the economic activity in all the industries that make use of their services to exploit digital opportunities. Furthermore, it is key to the functioning of the Directive that the safe harbour regime is applied homogenously across sectors of activities of online intermediaries as well as across EU Member States.

Proposed adjustments to the liability regime

The May 2015 Communication from the European Commission on the DSM Strategy contains a number of suggestions on how to improve the functioning of the DSM.[12] Some of the proposals have considered the role of the e-commerce Directive and the platform nature of intermediaries. The May 2015 DSM Strategy Staff Working Document queries: *"whether to ask intermediaries to exercise greater responsibility and due diligence in the way they manage their networks and systems, in a context of due process and legal oversight and in accordance with current best practice, so as to improve their resistance to the propagation of illegal content, increase transparency and thereby confidence in the online environment."*[13]

While this consideration appears well meant, it raises a concern about increasing burdens on online intermediaries (which already duly fulfil each of the judicial requests e.g. on take-down), and we point to the risk that such obligation would impose on new online intermediaries. Such burdens may be particularly cumbersome to new and smaller online intermediary services and could thus be limiting the online intermediaries' ability to support the economic activities in all the industries that make use of their services to exploit digital opportunities.

10 Oxera (2015).

11 Among the regulatory issues causing concerns for investors (i.e. reducing the interest in investing) were: legal ambiguity concerning the likelihood of lawsuits and the size of damages in the event of liability; Holding websites and content intermediaries responsible for copyright infringement; Regulations that require that the online intermediary conduct evaluations of the content request by a person rather than rely upon technology filters, according to Fifth Era (2014).

12 European Commission (2015a).

13 European Commission (2015b), pp. 56-57.

Furthermore, adding such a burden to the activity of online intermediaries would, in particular, reduce the ability of smaller scale intermediaries to enter, innovate and grow by developing new business models and new sectors of activity – thus depriving Europe of digital innovation and the associated GDP and employment contribution.

> *Adverse changes to the liability could have a handicapping effect on innovation and the economics activity of online intermediaries*

Additional regulation under consideration

European online intermediaries and foreign-owned intermediaries operating in Europe are already regulated in many ways through numerous EU directives and regulations. A regulatory mapping of the regulations and directives applicable to online intermediaries identified more than 40 EU directives and regulations covering many different aspects of the activities conducted by online intermediaries ranging from consumer rights to data retention over VAT regulation and many more aspects. So online intermediaries are not operating in a regulatory void – on the contrary – online intermediaries are subject to a large number of regulations of all aspects of the their operations.

Some European policy makers are now considering additional regulation of online intermediaries. The European Commission has decided to launch a comprehensive assessment into the role of online intermediaries in the economy. Following this assessment, policy makers may aim to define a class of Internet services as essential or systemic digital actors that require a new level of regulation beyond existing regulation and competition law.

For example, the May 2015 DSM Strategy Staff Working Document states that: *"more work is needed to gather comprehensive and reliable evidence on how different types of platforms work and their effects on their customers and the economy as a whole. On the basis of such an evidence base, an assessment can be made of the nature of the problems that may arise from their pivotal role in the digital economy and whether existing regulatory tools are sufficient to tackle them, or whether new tools need to be developed."*[14]

Additional regulation of online intermediaries of the kind reflected in the above statement should only be considered if a continuation of the current regulation involves a clear risk of a serious loss of economic efficiency and consumer welfare and where other solutions are not available. This is far from the case. On the contrary, online intermediaries are creating economic efficiency and consumer welfare. And it should be taken into account that a further regulatory intervention, with the distortions that it can create, can make the situation worse than it would otherwise be. Furthermore, as our study shows, it is inherently difficult to define the online intermediaries as a special class of companies, and they continue to evolve and change in a variety of ways. Thus attempting to create legislation to cover this practically undefinable class of companies would be extremely challenging. Finally, the online intermediaries are still young companies and competition in the market is very dynamic. There is intense rivalry between the large online

[14] European Commission (2015b).

intermediaries and rivalry with a number of other more specialised platforms for the attention of users.

So all in all, we see no case for additional regulation of online intermediaries.

> *We need to keep in mind that the costs of 'false positives' – premature, unmeritorious interventions – are likely to be quite high, given the basic back story of welfare-enhancing innovations*[15]

Alex Chisholm
Chief Executive
UK Competition and Markets Authority

1.7 Concluding remarks on the policy environment

Online intermediaries have played and will continue to play an important role in making the DSM a reality for citizens and consumers throughout Europe and throughout sectors of the European economy. Online intermediaries are benefitting from a large single market throughout Europe (and indeed globally) and this will allow online intermediaries to bring benefits to individuals and companies from interacting with each other.

The European Commission's DSM efforts will also be strengthened via the online intermediary sector. As shown, online intermediaries can continue to bring down barriers and burdens that fragment the European online markets and help cross-border e-commerce to grow. The development of a full DSM is the key enabling policy framework for online intermediaries.

In further developing the DSM, it is essential to preserve a flexible regulatory framework governing online intermediaries in the EU and this will underpin the economic growth we see being generated by online intermediaries. Conversely, any adverse changes to the liability regime – such as increased legal obligations on intermediaries – could have a handicapping effect on innovation and the economic activity of online intermediaries, putting this value at risk. As a result, the bar for intervening in the market should be high.

The intermediaries' contributions to the economy would not be possible at the current level without the liability regime as it is currently designed. Preserving and improving the regulatory framework governing online intermediaries in the EU will underpin the economic growth we see being generated by online intermediaries.

[15] See speech by Alex Chisholm, the Chief Executive of the UK Competition and Markets Authority from December 2014. Accessible at: https://www.gov.uk/government/speeches/alex-chisholm-speaks-about-digital-technology.

Chapter 2

Contributions to EU SMEs

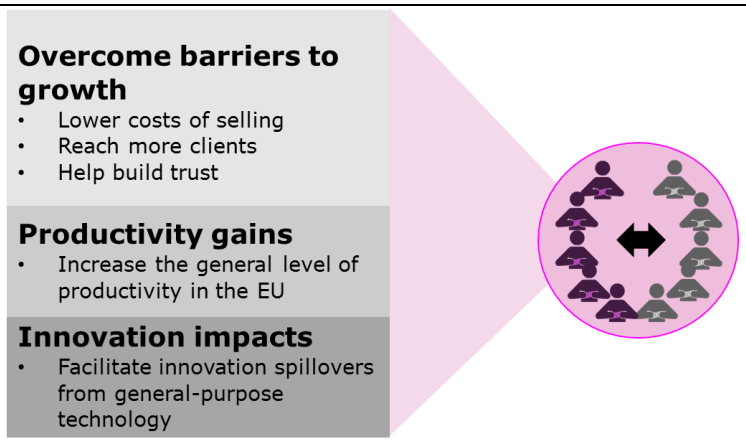
SMEs are the backbone of Europe's economy and make important contributions to innovation, productivity and economic well-being. In the past five years, they have created around 85 per cent of the new jobs in the EU and they now account for two-thirds of the total private sector employment.[16] The continued growth of SMEs is key to ensuring jobs and prosperity in the EU.

SMEs benefit from online intermediaries in multiple ways:

1. Through **lower barriers to growth,** by lowering the costs of selling, broadening the reach of clients and building trust.
2. Through **productivity impacts**, e.g. enhanced productivity of the sales force, purchasers and knowledge services, and benefits from cloud computing.
3. Through **innovation impacts**, by increasing the spread of general-purpose technology.

These types of benefits are illustrated in the figure below.

Figure 3 Benefits to SMEs from online intermediaries



Source: Copenhagen Economics

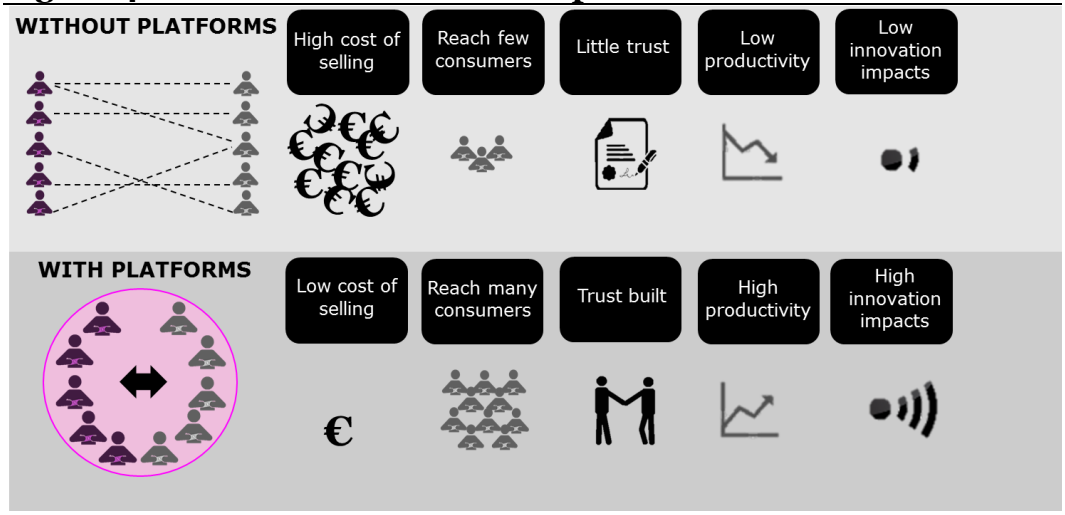
SMEs face financial, informational, contractual and managerial barriers to growth and, in particular, to entering new markets. Online intermediaries help SMEs overcome these barriers.

Online intermediaries reduce the cost of selling by lowering the operational, marketing and transportation costs of doing business. This means that the amount of capital required to start and grow a business is reduced and that the SMEs become more competitive. Online intermediaries create more traffic on SMEs home pages and thereby

[16] European Commission (2015c).

enable SMEs to reach more clients without spending scarce capital and managerial time. Finally, online intermediaries take the complexity out of selling and help SMEs build a trusting relationship with their clients. This is illustrated in the figure below.

Figure 4 Online intermediaries help SMEs overcome barriers



Source: Copenhagen Economics

2.1 SMEs face barriers to growth

SMEs make important contributions to innovation, productivity and economic growth, but their continued growth and internationalisation are hampered by several barriers:[17]

Barriers

1. Shortage of working capital to finance exports
2. Identifying foreign business opportunities
3. Limited information to locate/analyse markets
4. Inability to contact potential overseas customers
5. Obtaining reliable foreign representation
6. Lack of managerial time to deal with internationalisation
7. Inadequate quality of and/or untrained personnel for internationalisation
8. Difficulty in matching competitors' prices
9. Lack of home government assistance/incentives
10. Excessive transportation costs

When SMEs face a shortage of working capital, they are unable to seize new business opportunities and expand into new markets (e.g. by obtaining a reliable foreign representation). This puts them at a comparative disadvantage relative to their more consolidated competitors who have easier access to external finance.[18]

Inadequate knowledge about business opportunities in new markets and limited information to locate/analyse markets are also top barriers perceived by SMEs.

[17] OECD (2009).
[18] European Central Bank (2014).

Overcoming these barriers requires both marketing, personnel and managerial resources – resources that are already scarce in many SMEs.

Finally, SMEs typically do not have the required size with regards to turnover to bear many of fixed costs required for entering a new market. For this reason, SMEs are often not able to set up the required infrastructure to service clients in new markets. High transportation costs add to the comparative disadvantage of SMEs and pose an important barrier to SMEs' growth.

2.2 Online intermediaries help SMEs overcome barriers

Online intermediaries help smaller companies to achieve "big company" benefits from digitalisation. They allow smaller companies to get online and enjoy the benefits of digitalisation at a fraction of the cost of doing it themselves.

Online intermediaries help existing companies to improve their business and help entrepreneurs starting their business by reducing a range of key cost components. Online intermediaries help SMEs by sharing the costs with other SMEs and thereby help SMEs to achieve the benefits of digitalisation in many areas, including the examples below.

On the sales-side (e.g. marketing, selling, payments, and logistics):

- Social networks, recommendation engines, and search engines help small sellers, who lack the resources to build broadly recognised brands, to discover customers.
- Merchant platforms such as eBay and Etsy take small business's products to the market.
- Payment facilitators such as PayPal, PayU, Wikipay and Square provide access to credit provision and payment systems.
- Logistics platforms link small merchants to a global network of one- and two-person shipping companies.

On the input-side (equipment, workforce, IT and investment):

- Peer-to-peer business platforms (sharing economy) such as 3Dhubs.com connect SMEs to more than 20.000 local 3D printers or when sharing marketplaces like floow2 allow SMEs to share all kinds of excess capacity online of everything from specialised machinery, tools to secretary assistance.
- Online workforce marketplaces such as upwork.com provide platforms for companies to hire and work with independent professionals around the world.
- Cloud computing has enabled small merchants to enjoy hardware and software benefits once limited to companies who could afford such large investments. SMEs can now rent professional data services, as needed, such as storage, software, platforms, and test environments.
- Brokerage platforms such as Funding Circle link investors to those who need capital.

These are some of the many ways in which online intermediaries provide benefits to small companies and thereby help SMEs overcome some of the barriers to growth.

We are highlighting three important benefits for SMEs from online intermediaries, namely:

Online intermediaries: Bringing "big firm" benefits to Europe's SMEs

- **Lower costs of selling:** Online intermediaries facilitate low cost selling, which means that the amount of capital required to start and grow a business is reduced, and that the SMEs are less dependent on government assistance. Low cost selling also makes it easier for the SMEs to match competitors' prices and keep transportation costs low. Personal interaction is also important and online intermediaries help SMEs to reduce travel costs through travel sites for flights and hotels.
- **Reaching more customers:** Online intermediaries enable SMEs to reach more potential buyers, which reduces the need for new capital investments and resources (including capital and managerial time) required to identifying new business opportunities, contacting potential buyers and collecting information.
- **Building trust**: Online intermediaries help SMEs build a trusting relationship with their customers and reduce the need for establishing reliable foreign representation, spending managerial time and hiring new staff.

These main benefits help address the key barriers to growth for European SMEs as shown in Table 1.

Table 1 Online intermediaries help overcome barriers

Perceived barriers by SMEs	Lower the costs of selling	Reaching more customers	Building trust
Shortage of working capital to finance exports	●		
Identifying foreign business opportunities		●	
Limited information to locate/analyse markets		●	
Inability to contact potential overseas customers		●	
Obtaining reliable foreign representation		●	●
Lack of managerial time to deal with internationalisation		●	●
Inadequate quantity of and/or untrained personnel for internationalisation		●	●
Difficulty in matching competitors' prices	●	●	
Lack of home government assistance/incentives	●		
Excessive transportation costs	●		

Source: Copenhagen Economics

In the next sections, we describe how online intermediaries help SMEs grow by lowering the costs of selling, enabling SMEs to reach more clients and help building trust between SMEs and their customers. We end the chapter with a summary of how these impacts add up to increased productivity and increased innovation for Europe's SMEs.

2.3 Online intermediaries lower SMEs' costs of selling

Online intermediaries make marketing easier. Until a few years ago, online selling required large upfront investments in technology, marketing systems, payment systems and large internal logistics systems, which means that online selling has historically only

been available to large companies.[19] Online intermediaries provide different types of platforms for the exchange of goods, services and information, which in turn reduces the fixed upfront cost of online selling and marketing. Today, thanks to intermediaries, SMEs can save these large upfront investments and instead pay a fee per transaction, per click or per view, which allows SMEs to scale up and down depending on fluctuation in demand.

Online intermediaries therefore enable SMEs to operate and reach markets at lower costs for marketing and sales compared to a situation without the online intermediaries. This means that SMEs get access to capabilities and services that previously were available to only the largest enterprises – and at a fraction of the costs.

> *"The development of social platforms has provided a new, low-cost, way for small business to promote their products, and for the consumer to discover them*
>
> *Computer & Communications Industry Association (2013)*
> 'The Internet: the enabling force of the 21st century'

European SMEs use many different online intermediaries to improve their marketing and sales efforts, in order to successfully reach customers and access new markets. Many SMEs use a range of online intermediaries spreading from social media such as Polish Nasza Klasa, Belgian Netlog and Facebook or general search providers such as Yahoo!, Bing and national variants such as Seznam[20] in the Czech Republic.

In a recent report conducted for the European Commission, the role of social media on European SMEs is investigated. The analysis is based on survey data gathered from 600 SMEs distributed across different economic sectors and located in six different Member States.[21] Furthermore, workshops, online discussions, and interviews were carried out to validate the results found in the survey.

> *"61% of European SMEs use social media*

The results of the study highlights that SMEs make use of online intermediaries. For example, the study found that 61 per cent of European SMEs made formal use of social media, and that most users of social media primarily use them for external processes as, most notably, marketing. This picture is confirmed by a McKinsey study, which showed that 70 per cent of companies are using social media. The study further pointed out that companies have only recently started to use these forms of online intermediaries for marketing purposes.[22]

19 Boston Consulting Group (2013).

20 *Seznam* is a generalised search service. It was the first web portal in the Czech Republic and was founded in Prague in 1996. The company runs more than 15 different web serv ices and associated brands. Seznam had more than 6 million real users per month at the end of 2014, and it used for around 40 per cent of the general searches conducted in the country.

21 United Kingdom, Netherlands, Spain, Italy, Bulgaria and Latvia.

22 McKinsey (2012).

In the study for the EU Commission, the surveyed European SMEs using social media reported that their financial situation improved more than those who did not, as 29 per cent of users of social media reported an improved financial situation over the last 3 years compared to only 18 per cent of non-users.[23] This suggests that social media brings economic benefits to the SMEs. The available studies, including the one for the Commission does however not fully quantify the effect.[24]

A trade revolution – a flatter world

Other online intermediaries help SMEs overcome barriers related to geography and a limited size of their local market. Selling products via one of more than 220 online market places available in Europe can be an effective channel for many types of SMEs. How else would a small venture such as SportClothes (see case study below) be able to sell trainers to customers all over the world?

Case Study: SportClothes

Born and raised in Lithuania, Andrius Kolesnikas has always been passionate about basketball. While playing recreationally he noticed that he could not always readily find the kinds of shoes he wanted to wear. He turned to eBay to help him find the right trainers, and he quickly realised that he could turn his hobby and passion for trainers into a profitable venture.

Because Lithuania is a small country and both customers and demand for his products can be rather limited, Andrius uses the online marketplace to put his products in front of the eyes of thousands of customers from all over the world. Many were sceptical that anyone would want to buy trainers from a business in Lithuania, but Andrius finds that by providing excellent photos, descriptions, videos and outstanding customer service, most people have had no issues shopping with SportClothes. The larger scale allows him to move inventory more easily and that in turn allows him to offer a big selection of items to his Lithuanian customers. Currently his biggest market is the U.S., which makes up about 40 per cent of purchases. Customers also come from Australia, Russia, Canada, Italy, Germany and Greece.

Source: eBay

The challenge with getting SMEs online in Europe is considerable. Only 15 per cent of companies in the EU sell online[25] and very few, 7 per cent, sell cross-borders.[26]

Online intermediaries offer SMEs a new model for trade. They have the potential to revolutionise trade and a new model of Commerce 3.0 is emerging. With the help of online marketplaces (like Allegro, eBay, Amazon, Yahoo! Shopping, and Etsy) small global businesses are emerging and growing.

Research based on data from the online marketplace eBay shows that small online businesses across Europe are exporting to more countries than ever before - both in Europe and beyond, gaining market share more quickly, and showing better resilience in the face of tough trading conditions, than small businesses that are offline (as shown in

[23] See European Commission (2013). Another study conducted by Deloitte in 2015 on behalf of Facebook attempted to quantify the economic impact of Facebook, including the marketing benefits for the firms using the site for marketing.
[24] To fully answer the question of economic effect would require a more rigorous study to control for other factors.
[25] See European Commission (2015b), p. 8.
[26] See European Commission (2015d).

the box on "A trade revolution" below). Thanks to these online marketplaces, location matters less and online SMEs are no longer as constrained by a particular geography as small businesses that are offline. Great geographical distance between the exporter and the importer normally reduce trade between them.

Standard estimates show that increasing distance by 10 per cent reduces trade by 15 per cent to 20 per cent. Online marketplaces reduces the impact of geographical distance on trade. Estimates based on data from eBay show that increase in distance by 10 per cent between a buyer and a seller in the EU would only decrease cross-border trade by 4 per cent. In other words, trade costs are significantly lower for SMEs using the online marketplace.[27]

> *"Distance's negative impact on exports is reduced from 17% for traditional intra-EU trade to only 4% for technology-enabled intra-EU trade*

A trade revolution – online intermediaries taking SMEs global

Analyses of transactions on the eBay Marketplace in Europe shows *inter alia*:

More SMEs can engage in exporting

- European SMEs are taking advantage of the lower trade costs offered by the online marketplace. In the EU, 93 per cent of the SMEs using the eBay marketplace engage in exporting – in contrast to an average of 26 per cent for traditional companies.
- In 2014, the top 5 per cent of traditional companies (by size) account for roughly 82 per cent of EU traditional exports. The top 5 per cent of the SMEs using eBay's platform only account for 58 per cent of the exports.
- The share of new entrepreneurs is four times higher in the eBay Marketplace compared to the traditional marketplace.

Each SME can serve more markets

- The small online businesses on eBay's platform in the EU reach on average 18 different countries annually, and 10 of those are EU countries.
- Some 77 per cent sell to five or more foreign countries.
- The number of European SMEs on eBay exporting to 15 or more countries increased by over 48 per cent between 2010 and 2014.

More resilient export performance

- The World Bank has found that across six EU countries only 16 per cent of exporting companies were still exporting after three years. On eBay it is very different. As many as 71 per cent of eBay SMEs continue exporting after three years, more than four times the percentage of offline companies.

Note: The analysis was carried out by Sidley Austin for eBay and is based on data covering transactions on the eBay Marketplace in Europe from 2010 to 2014. The data was limited to transactions by sellers with sales of more than EUR 9000 annually on the eBay marketplace. These are called "Commercial Sellers", or small online businesses.

Source: Based on eBay (2015) and eBay (2012)

This shows how the online marketplace offers lower market entry barriers, but also provides better opportunities to start and grow businesses.

Online intermediaries also help SMEs in relation to their business travel. Europe's SMEs can use online intermediaries such as Expedia for easy planning and booking of business

[27] eBay (2015).

trips. Furthermore, the availability of online price comparisons provides additional price transparency and ensures that SMEs can get the best rates available for all types of travel. Furthermore, the ease of booking and planning can reduce internal costs in their travel support functions.

Benefits from using online intermediaries are also available to SMEs in the travel and tourism industry. Online intermediaries are playing an important role in the travel and tourism industry both as a source of information and as a sales channel. Online marketing and consumer reviews via online channels allow destinations and attractions to reach millions of potential travellers around the world. The ability for potential travellers to review and compare travel options opens up new markets for both large and small businesses in the travel and tourism industry and the ability to compare prices and make purchases online benefits travellers and tourism businesses alike.

In a recent study, Oxford Economics explored the value of online content to the tourism economies of Greece, Italy, and Spain.[28] The research found that destinations making greater use of the Internet in reaching customers performed better than their peers and have gained market share from competitors. While the study has a broader scope than just online intermediaries, online intermediaries such as Expedia play an important role as they provide attractive platforms for small tourism businesses, e.g. hotels, to reach large amounts of potential guests.

2.4 Online intermediaries help SMEs reach more customers

Preparing for online selling is costly for SMEs, and for some SMEs, online presence would not be possible without online intermediaries. Online intermediaries reduce the cost for SMEs to get online dramatically and it reduces the time potential buyers will need to spend searching for just the right product that fulfils his or her needs. When search costs are reduced, potential buyers tend to visit more home pages to find the right product (see next chapter).

E-commerce platforms such as eBay and Allegro allow others to set up shops on their platforms in order to make their products and services available to Internet users in the broadest sense. In this way, online intermediaries therefore provide advantages such as higher traffic and reach, which make it easier for SMEs to market their products and reach more potential buyers. Currently, there are more than 220 online marketplaces throughout Europe, as shown in the case study below.

> *There are more than 220 online marketplaces throughout Europe*

[28] See the study, Oxford Economics (2013). The analysis by Oxford Economics quantified the opportunity for additional economic growth with increased Internet adoption by the tourism industry in each country, and found that the tourism industries in these countries would benefit from a long-run increase in demand of up to 20 per cent if action were taken to increase online activity to match that of leading EU countries.

Case Study: The Federal Association of e-Commerce

The German Federal Association of e-Commerce (BVOH) has represented the interests of business owners as well as consumers within the online community since 2006. The basic idea of online marketplaces is their potential to provide one platform for different merchants to offer their goods, thereby reaching out to more clients. The popularity of e-Commerce among customers has already been proven with a total of 50 companies offering more than 220 online marketplaces throughout Europe. "Even if many consumers are still not aware of this, e-Commerce is so much more than just Amazon and eBay. In addition to these 'top dogs', many other marketplaces have established themselves, and are well able to meet the very specific wishes of the customers", says the President of BVOH, Oliver Prothmann.

Source: Amazon

By creating traffic on websites of SMEs who are unknown in the market, increasing the reach of SMEs at low costs and providing price comparison platforms, online intermediaries create new opportunities for small companies.

Lux Made In, for example, used Google's services to make its marketing campaign more effective as demonstrated in the case study below.

Case Study: Lux Made In

LUX•MADE•IN Lux Made In is an online marketplace for jewellery created by Italian designers. Its founder, Giorgio Isabella, says that: "It was Google that actually helped me to start-up this site. It was a vitally important business opportunity." He goes on to explain how the company uses the tools: "Analytics has helped us to fine-tune our promotional campaigns by giving us important data about incoming traffic and the countries we need to focus on. This information is also valuable because it helps us make more of an impact on marketing managers to whom we offer consultancy services." Giorgio says that using Google tools has increased not only Lux Made In's customer numbers, but also the number of jewellers signing up to advertise on the site.

Source: Google

Another example, is the case study of the Italian SME, *Footloover*, which experienced high growth after going online (see the case study below). In the same way, the online intermediaries reduce barriers to introducing new products in the market and thus create new opportunities for small companies and entrepreneurs to reach more customers. In other words, online intermediaries help SMEs scale-up their businesses at a much lower cost than what they would have incurred without online intermediaries. This is pivotal for the development of SMEs.

Case Study: Footloover

FOOTLOOVER Mario Calabrese and his family have been in the footwear business since 1935, and the small business has been passed on through the generations. The family manufactured shoes made by hand, for which reason the business struggled to remain competitive when big shopping centres began entering the local market. However, in 2004, with no computer experience whatsoever, Mario tried his luck selling some items on eBay, and suddenly Footloover was born. It didn't take him long to realise the business opportunities eBay could offer, including the possibility to compete with large companies on equal terms. The first year online was more of an experiment, but since 2005 the business has seen phenomenal growth, reaching up to 130 per cent annually. "I'm not saying we would have closed our doors without online sales, but business certainly wouldn't be as good as it is today. eBay has opened our business up to some incredible opportunities and I'll always be tremendously grateful for that", says the owner, Mario Calabrese.

Source: eBay

To sum up the impacts: in a study specifically aimed at SMEs, Boston Consulting Group (2013) found a strong correlation between the adoption of advanced information technologies on the one hand and growth in revenue and jobs on the other. Companies that were technology leaders created jobs twice as fast and increased their annual revenues by 15 per cent compared to SMEs with a slower adoption rate. While this study is more generally about the use of advance information technology, we argue that online intermediaries play a central role in bringing these benefits to European SMEs.

Online intermediaries also have an impact on the long tail of the company-size distribution discussed by Anderson (2006). Online intermediaries are associated with an increase in the share of niche products relative to mainstream products as in Brynjolfsson (2011).

2.5 Building trust

Online intermediaries and e-commerce platforms take the complexity out of selling across-borders and help SMEs build a trusting relationship with their clients based on professionalism and high-quality products that meet clients' needs.

Amazon, for example, has 28 fulfilment centres distributed across seven countries in Europe as well as Customer Service centres that are able to help customers in their local language. With the online intermediary also handling the shipping of the product, SMEs can ship their products to one of the centres, and the online intermediary will manage orders and manage customer service. The Service Centres therefore give SMEs (such as Polli's Luggage in the case study below) the opportunity to service clients in near and faraway places in a professional way without having to train their own staff and spend scare resources on returns and post-sales communication.

Case Study: Polli's Luggage

One of the sellers using Amazon is Franco Polli, who runs a luggage business called "Polli's luggage". His family has sold traditional suitcases and bags in their home town for decades. When the economic crisis hit, the family business suffered, so in 2013 Franco decided to launch on Amazon.it. A new school year was about to begin, and their colourful rucksacks just flew off the shelves. Those rucksacks now sell on all Amazon's European Marketplaces. The success he encountered encouraged him to use fulfilment by Amazon, which lessened his workload, especially with regard to returns and post-sales communication. "I'm proud to have maintained the family business at a time when closure was a real possibility, and to have transformed something that is truly my own," Franco says.

Source: Amazon

Online intermediaries also facilitate a more direct contact between sellers and buyers. Online client feedback gives SMEs a cheap and quick testing ground for new products, and it helps build client trust. For X-KOM, an SME computer appliance e-retailer, the combined use of an online price comparison shopping site and a strong presence on online platforms has given the company important insights about consumers' needs and changing demand, as shown the case study below.

Case Study: X-KOM

X-KOM is a computer appliance e-retailer. Since the very beginning of its existence in 2002, X-KOM decided to distinguish itself from its competitors by providing significantly better customer experience. Openness and listening to the customers resulted in an entrepreneurial approach to cooperation with the online price comparison shopping site (Ceneo) that enable the company to provide significantly better customer experiences. The company also gave priority to a strong online presence on Allegro's marketplace with parallel product offering presence in both e-shop and marketplace sales channels. "Internet platforms played the central role in constant overachievement of our goals – sales driven by customer feedback on both comparison shopping and marketplace platforms each year have given us fresh inspirations how to make our customers happy" – said Matusz Kapusta, Managing Director of X-KOM.

Source: Allegro

2.6 Productivity impacts

Online intermediaries also have another type of effect, which goes beyond that measured through direct consumer and business benefits. Online intermediaries contribute to increase the general level of productivity in the entire EU economy. This effect materialises through a number of channels, for example:

- **Productivity effects of e-sales**: Online intermediaries allow companies to sell their goods and services more effectively, which increases the productivity of the sales force.
- **Productivity effects of e-purchase**: Online intermediaries allow companies to purchase inputs more cheaply.

- **Productivity effects due to lower search costs**: Online search has dramatically reduced the costs of finding information. This increases the productivity of Internet-using companies in the economy, particularly in knowledge services.
- **Benefits from cloud computing**: Besides the productivity gains mentioned above, there is an enormous potential for increasing business productivity through cloud computing.

To quantify the benefits from increased productivity requires a *dynamic impact* approach.[29] The dynamic approach examines the net share of *additional* GDP that is generated by activities related to online intermediaries. OECD (2013) calculates this dynamic impact for the entire Internet economy. This is done by looking at the statistical relationship between measures of Internet development and economic variables such as GDP growth and employment. The OECD analysis focuses on the entire Internet economy and is therefore too broad to be applicable to online intermediaries since platforms are only a subset of the Internet activities.

2.7 Innovation impacts

The Internet is considered a so-called *general-purpose technology*. These innovations are particularly powerful. They are long lasting and their pervasiveness makes them especially disruptive. The Internet is an excellent example of such a disruptive new technology that changes the ways we live and work. It introduced new ways of communicating and using information that enabled major innovations, creating new opportunities for a plethora of industries, rearranging value chains and enabling new forms of competition.

General purpose technology

The term "general-purpose technology" is central for the role of technology in economic growth, and term is usually reserved for describing changes that transform both household life and the ways in which firms conduct business. Examples of general purpose technologies include the steam engine, electricity, the combustion engine, and information technology (IT).[30]

In industry after industry, Internet-enabled innovations have brought transparency to pricing, disrupted commercial relationships, created new customer expectations, and made old business models obsolete. Apple's music services and companies like Spotify have changed the music business and challenged record stores, online booking systems such as Expedia have put travel agents under pressure, and Amazon has forever changed both bookselling and the book publishing industry. Online intermediaries are entrepreneurial firms and many of today's leading firms were start-ups just 10 or 15 years ago. These new firms have introduced new business models and introduced innovative new ways of accessing, using and delivering goods and services.

A recent study examines the impact of a well-functioning liability regime for Internet intermediary start-ups. The study found a significant impact on the viability and success

[29] The OECD describes this approach in OECD (2013).
[30] Jovanovic and Rousseau (2005).

of start-ups and the wider Internet economy. Most countries in the study are non-European, but Germany is included. Although the risk of legal action for intermediary start-ups is low in Germany, Germany's start-up ecosystem is found to moderately benefit from increased liability protection in particular to increase its start-up success rate. The study estimated an increase of around 9 per cent on its current success rate. The profitability of successful companies could increase by 3 per cent.[31]

Online intermediaries have also contributed to improve efficiency of R&D and facilitated cross-company collaboration and consequently positively impact companies' innovation activity. For example, online intermediaries work to speed innovation through better matching. They enable matching the right people to a job or facilitating communication and the meeting of minds that would otherwise have not occurred. They can also work through the matching of investors and available finance with start-ups and projects.

> *Increased liability protection increase the success rate of Internet start-ups by 9 per cent and profits by 3 per cent*

Consumer banking is an example of where there has been a high degree of innovation resulting in online banking, mobile payment apps, and many of these solutions are online intermediaries such as PayPal. For consumers, these innovations have made it possible to perform transactions where and when they want, with flexible access to a range of financial products and increased options to compare products and prices. For the banks, innovations have resulted in lower costs, better insight into consumer behaviour and the ability to expand geographically without having to establish actual physical locations. Such innovations also have an impact on SMEs. Mobile payment apps, for example, allow small scale sellers at physical locations to receive payments other than cash without having to invest in expensive payment systems.

The impacts of online intermediaries through innovation and disruption of existing markets is large. In our view, there is no single approach to quantify these impacts across the board. Rather, we believe that these impacts are best captured on a case-by-case basis looking into the impacts for individual areas, as is demonstrated in this report.

2.8 Concluding remarks

SMEs are the backbone of Europe's economy. SMEs have created around 85 per cent of the new jobs in the EU the last five years and now account for two-thirds of the total private sector employment.

The early adopters of advanced information technologies among SMEs have created more jobs and grown revenue 15 per cent faster than SMEs with a slower adoption rate. As shown in this chapter, online intermediaries play a central role in bringing these benefits to European SMEs.

[31] Oxera (2015).

Online intermediaries help smaller companies to achieve "big company" benefits from these advanced information technologies. Online intermediaries allow smaller companies to become early adopters of new technologies and allow SMEs to enjoy the benefits at a fraction of the cost it would cost them without the intermediaries being available.

With regards to sales, SMEs use social networks, recommendation engines, and search engines to reach new customers. Merchant platforms such as Allegro, eBay and Etsy help SMEs to market their products and it helps SMEs to become exporters and go beyond borders. Payment facilitators such as PayPal, PayU, Wikipay and Square provide access to credit provision and payment systems. Logistics platforms link SMEs to a global network of shipping companies.

With regards to input, SMEs use peer-to-peer business platforms (sharing economy) such as 3Dhubs.com or Floow2 to get capacity online of everything from 3D printers, specialised machinery, tools to secretary assistance. SMEs use online workforce marketplaces such upwork.com as a platform to hire and work with independent professionals around the world. Cloud computing has enabled SMEs to enjoy hardware and software benefits once limited to bigger companies. Platforms such as Funding Circle link those SMEs who need capital to interested investors.

In this chapter we provided real life examples to demonstrate important benefits that SMEs get from online intermediaries, notably:

- **Lower costs of selling:** Online intermediaries facilitate low cost selling, which means that the amount of capital required to start and grow a business is reduced.
- **Reaching more customers:** Online intermediaries enable SMEs to reach more potential buyers, which reduces the need for new capital investments and resources required to grow to scale.
- **Building trust**: Online intermediaries help SMEs build a trusting relationship with their customers and reduce the need for establishing reliable foreign representation, spending managerial time and hiring new staff.

In this chapter, we demonstrated how online intermediaries reduce barriers to SME growth. It is therefore important to the growth of SMEs that online intermediaries are provided with a policy framework that allow them to continue to reduce the costs of selling for SMEs, enable SMEs to reach more customers and help SMEs build a trusting relationship with their customers and potential buyers.

Chapter 3

Broader benefits for EU consumers

The economic impact of online intermediaries reaches beyond what can be measured by traditional methods as online intermediaries benefit consumers in multiple ways that go beyond the effects that are captured by national accounts measures such as GDP.

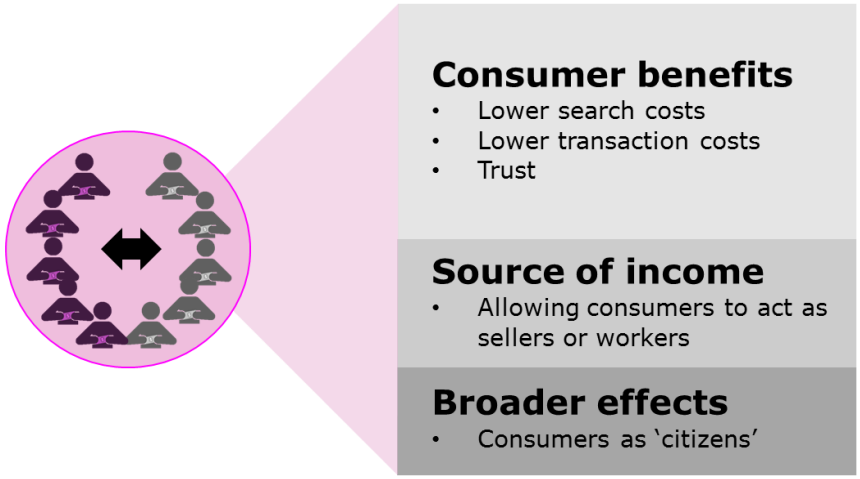
In the same way that online intermediaries help SMEs overcome barriers and thereby create new business opportunities, online intermediaries also help consumers overcome different types of barriers and thereby unlock benefits for consumers.

Consumers benefit from online intermediaries in multiple ways:

1. Through standard **'consumption benefits'** such as lower prices and a larger variety of goods or services;
2. As an alternative **source of income** when offering services for others through online intermediaries such as Uber, Spotify or Airbnb;
3. Through **broader effects** such as social capital formation, the possibility to express oneself or better environmental outcomes.

These types of benefits are illustrated in the figure below.

Figure 5 Benefits for consumers from online intermediaries



Source: Copenhagen Economics

The consumption benefits occur because online intermediaries 'shorten' the distance between users. Firstly, online intermediaries lower the so-called 'search costs', meaning that consumers can use online intermediaries to find products or services more easily. For example, consumers can access an enormous amount of information, compare prices in

just a few clicks and locate sellers and a broad variety of products beyond those that are geographically nearby. Online intermediaries also reduce the so-called *transactions costs* meaning that they make it easier and cheaper for consumers to actually purchase the product once they have located it. This is possible because the online intermediary has the scale to set up a better payment system or offer free shipping. Lastly, consumers *will* actually make use of these new purchasing options because online intermediaries provide a higher degree of trust.

Because of these mechanisms, online intermediaries benefit consumers through the traditional channels we normally think of in standard consumer theory:

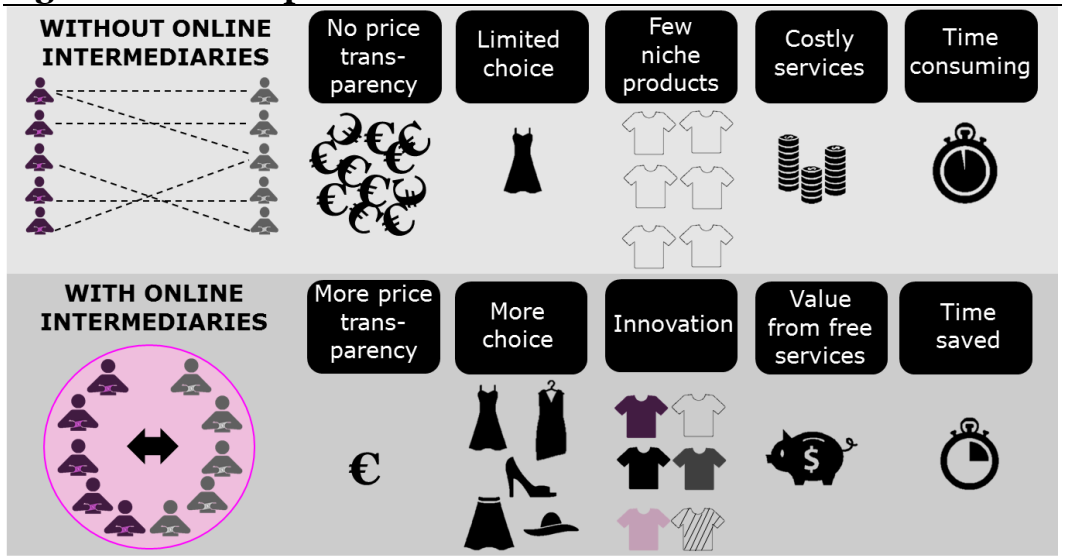
- More price transparency and lower prices
- More choice

Consumers also benefit from the effects online intermediaries have through other mechanisms that are harder to measure:

- Innovative new products
- Availability of free services
- Time savings

This is illustrated in the figure below.

Figure 6 Consumption benefits from online intermediaries



Source: Copenhagen Economics

Additionally, online intermediaries allow people to act as 'sellers' or 'workers' in ways that would not otherwise be possible. In this way, online intermediaries benefit consumers by offering a new and flexible source of income. For example, marketplaces such as Allegro or eBay allow consumers to sell their assets to other consumers.

Lastly, online intermediaries not only affect people as 'consumers', 'workers' or 'sellers', but also as citizens whose utility and well-being depend on factors beyond those that can be captured by standard economic measures. Online intermediaries help citizens and policy makers by supporting important society goals such as democracy, freedom of speech and media plurality. Further, they enable social capital formation and improve environmental outcomes. These are all part of online intermediaries' broader impact on EU consumers.

> *Online intermediaries not only affect people as 'consumers' but also as citizens whose well-being depend on factors beyond those that can be captured by standard economic measures*

It is difficult to precisely quantify all the benefits from online intermediaries. In this chapter, we present some of the most important consumer benefits and quantifications where possible.

3.1 More price transparency and lower prices

Online intermediaries lower consumers' search costs and increase price transparency. Marketplaces such as Allegro and eBay and price comparison sites such as Skyscanner offer consumers access to price information on thousands of products from thousands of sellers. As a result, consumers obtain better product and price information. This search-enabled price transparency inevitably increases price competition and reduces prices, at least in some product categories.

One example of such a pricing impact is price comparison sites. A study focusing on the online book market argued that online price comparison sites reduce consumers' search costs. [32] Thereby, consumers become more knowledgeable about prices, which ultimately leads competing online retailers to lower their prices. The study's empirical analysis confirmed this hypothesis; an increase in the use of price comparison sites leads to a decrease in online retailers' prices. Furthermore, the increase in consumers' use of price comparison sites over time has also led to a decrease in *price dispersion*, i.e. the difference between the average and minimum price listed by the retailers.

Another study focusing on e-commerce concluded that online marketplaces bring benefits to consumers through lower prices. [33] Whilst savings vary considerably across products and countries, the study found an overall price saving of 17 per cent for users of online marketplaces compared to when the products were purchased in retail stores.

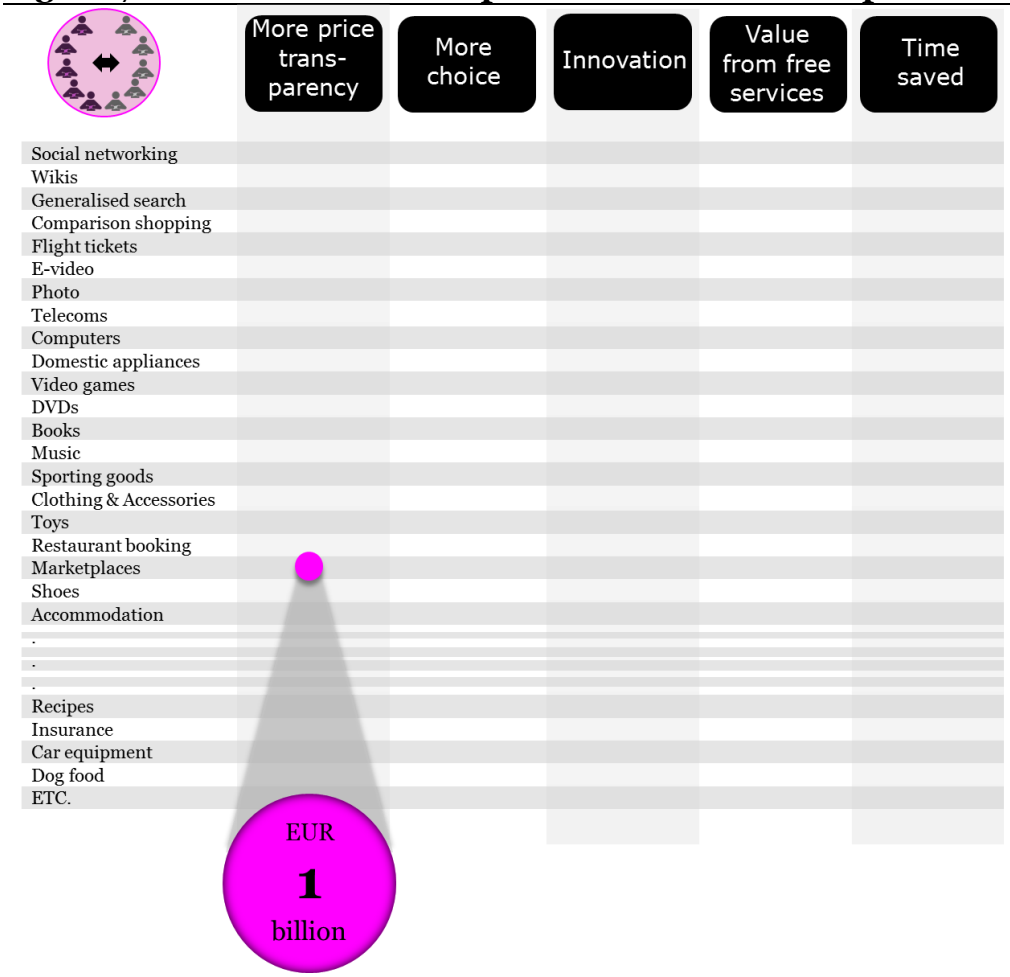
It is important to notice that these numbers only reflect one type of benefit (lower prices) and one type of online intermediary. Online marketplaces bring benefits to consumers in other ways than through lower prices, as discussed in the beginning of this chapter. Furthermore, consumers gain benefits from lower prices through other product categories than the ones analysed and through other types of online intermediaries. Thus, if we

[32] Tang et al (2007). The study focuses on the online book market.

[33] Frontier Economics (2008). The study focuses on eBay and analyses the following product categories: video electronics, audio electronics, photo, telecoms, computers, domestic appliances, video games, DVDs, books, music, sporting goods, and clothing and accessories.

imagine that we can list the types of benefits as columns and the types of products, activities or online intermediaries as rows then the number above represents just one entry in this 'benefit matrix'. Yet, this one entry still accounts for a substantial benefit of EUR 1.1 billion. This is illustrated in the figure below:

Figure 7 Benefits from lower prices at online marketplaces



Note: The categories presented are chosen arbitrarily as an illustration. The rows are meant to illustrate different products/activities that consumers purchase/carry out at online intermediaries. Some of the categories can be overlapping. For example, it is possible to purchase books at online marketplaces.

Source: Copenhagen Economics based on Frontier (2008)

Estimated savings were highest for telecom products, computers, books, and clothing and accessories categories and lowest for domestic appliances, music, video games, and DVDs and movies. The study found a total savings amount of EUR 1.1 billion per annum in Europe, or equivalently around EUR 50 per buyer in Europe.

> *" Online marketplaces bring benefits to consumers through lower prices for EUR 1.1 billion*

3.2 More choice

Price is not the only important element for consumers. Consumers also care about variety of product offerings. There is widespread recognition that as economies have advanced, consumers have benefited from an increased variety of goods and services. The Internet has given consumers access to an astonishing level of variety, and a large share of this development can be attributed to online intermediaries.

Online intermediaries enable more variety of product offerings for consumers by making it simpler for buyers and sellers to find each other. When online intermediaries help businesses go online, they are allowing sellers, who would not otherwise be able to take their products to the market, to find consumers and sell their products. This holds both for sellers who would not otherwise be active at all and for active traditional ('brick and mortar') sellers who reach a much larger consumer audience through the online intermediaries. The fact that these consumers can go online mean that more consumers other than those who are geographically close to the seller can purchase. The end result is more variety and choice for consumers.

Obvious examples of such online intermediaries are online marketplaces such as Allegro or eBay, which make it possible for smaller sellers to sell their products online without having to build their own online shop. A survey carried out by Webretailer found that 63 per cent of the sellers that are on marketplaces only sell on the marketplaces and not through their own online site.[34] Many of these sellers – and thus the products they sell – would not be available to most consumers without online intermediaries. In other words, the amount of choice for consumers would be smaller without these online intermediaries. An example of this is given in the case study below.

Case Study: Communication platforms facilitate more choice

Social networking and communication platforms such as for example Twitter facilitate increased variety in two ways: First, commerce is boosted as various goods succeed through positive word-of-mouth as the platforms allow users to share their opinions with people they may or may not know. Second, consumers become savvier by sharing feedback and demanding higher quality goods. Peer-to-peer feedback carries significantly more weight than even the most effective advertising. Consumers can communicate with each other as well as directly with the companies and thereby establish a presence and demand for a given product.

Source: Copenhagen Economics

Consider shoe retail as an example of increased choice for consumers; a large traditional brick and mortar shoe retailer offers at most a few thousand distinct varieties of shoes. However, an online retailer may offer over 50,000 distinct varieties. How does such dramatic increases in variety contribute to welfare? As consumers get access to a much broader set of choices, it allows them to purchase or use a large number of variants. This increases consumer welfare, but is rarely accounted for in standard economic impact assessments. A recent empirical study quantified this impact in the US using the example

[34] Webretailer (2014).

of the market for shoes, and found that online markets increased consumer welfare by 18 per cent through increased variety alone.[35]

Social media platforms and online video sharing sites can also help increase the amount of choice available to consumers, for example by helping sellers establish presence and gain a larger audience than what would otherwise be possible. This is illustrated in the case study below.

Case Study: Look fabulous forever

When Tricia Cusden launched Look Fabulous Forever in late 2013 with an edited range of makeup products for older women, she placed some video tutorials on YouTube as an experiment. What happened next astonished Tricia. "The videos have had a phenomenal impact and turned us into an international Internet business," she says. The Look Fabulous Forever YouTube channel instantly became Tricia's main promotional vehicle and, in its first year of trading, the company more than doubled its sales targets. To date, the 12 videos on Look Fabulous Forever's YouTube channel have had a phenomenal 911,000 views. When asked if she can pinpoint the reason for the company's YouTube success, Tricia says "all of our videos have the phrase 'makeup for older women' in the title, the second most searched for term by our demographic. We're also one of very few companies meeting a real demand. The big players are only now waking up to the opportunity we knew existed." Between December 2014 and January 2015, 10,500 people from 24 different countries visited the Look Fabulous Forever website, an increase of around 1,000 per cent compared to the same period in the previous year.

Source: Google

Furthermore, online *sharing economy* intermediaries have enabled more variety for consumers. Instead of booking a hotel room or renting a car through a traditional retailer when travelling, consumers now have a much wider set of options, as online intermediaries allow them to rent directly from other users. For example, the online intermediary Airbnb directly increases the number of choices for accommodation for travellers going to for example Paris.

> *" 27 per cent of Airbnb guests would not have come to Paris in the absence of an accommodation sharing economy site*

The platform enables locals to easily locate travellers to whom they can rent out a spare room or their entire apartment. Between 2012 and 2013, 10,000 local hosts welcomed over 223,000 guests to Paris, primarily renting the homes that they live in. 27 per cent of the guests said they would not have come to Paris or stayed as long without Airbnb.[36]

Based on the above, we expect consumer benefits from increased variety to be substantial. Governments and multilaterals should consider an increased focus on a quantification of the benefits from increased variety in the future.

35 Quan and Williams (2014).
36 Airbnb economic impact studies available at blog.airbnb.com.

3.3 Innovation and 'long tail' offerings

As argued above, online intermediaries widen the number of varieties available in the market and help potential consumers discover new products. Importantly, the increased reach made possible by online intermediaries can lead to product innovation because products, which would not have been able to gain a large enough audience without online intermediaries, are now brought to market. Examples of long tail offerings is illustrated in the case studies below.

Case Study: Medieval Market

SPES - Medieval Market is an online shop created by and for enthusiasts of the Middle Ages. Since 2007 it has been selling high-quality replicas of medieval artefacts, such as weaponry, furniture, jewellery and clothing. In addition, SPES - Medieval Market prides itself on its impeccable service, which it sees as essential to being successful online. One of the shop's initial goals was to break into foreign markets. The company knew Google AdWords ad campaigns were effective, and has been using them together with Google Analytics since it launched. The way the two tools work together has had a great impact on the company, which has gone from being a one-man band to employing five people. Owner Grzegorz Zmuda Trzebiatowski explains: "With Google tools and the Internet, we can run our business effectively and reach out to customers from all over the world."

Source: Google

Case Study: Happy socks

The Swedish company Happy Socks started in a small, old shed in Stockholm by Viktor Tell and Mikael Söderlindh. For the past three years Happy Socks has been using AdWords to tap into markets worldwide, increasing traffic and revenue. Recently, Happy Socks announced that it had more than doubled its online turnover in 2013, an increase of over 100 per cent on 2012. AdWords played a significant part in this remarkable growth. According to Marc Verschueren, Online Marketing Manager for Happy Socks, "AdWords directly contributed towards 20 per cent to our turnover but, looking at the indirect impact it had, AdWords actually generated 35 per cent of our total online turnover." The company is focusing on Europe, Japan, Australia and the US and is using AdWords to reach these attractive new markets. As Marc says, "We're now a global player. AdWords has enabled us to be found in every market. Google's scalable, simple, cloud-based products have made the world smaller and more accessible."

Source: Google

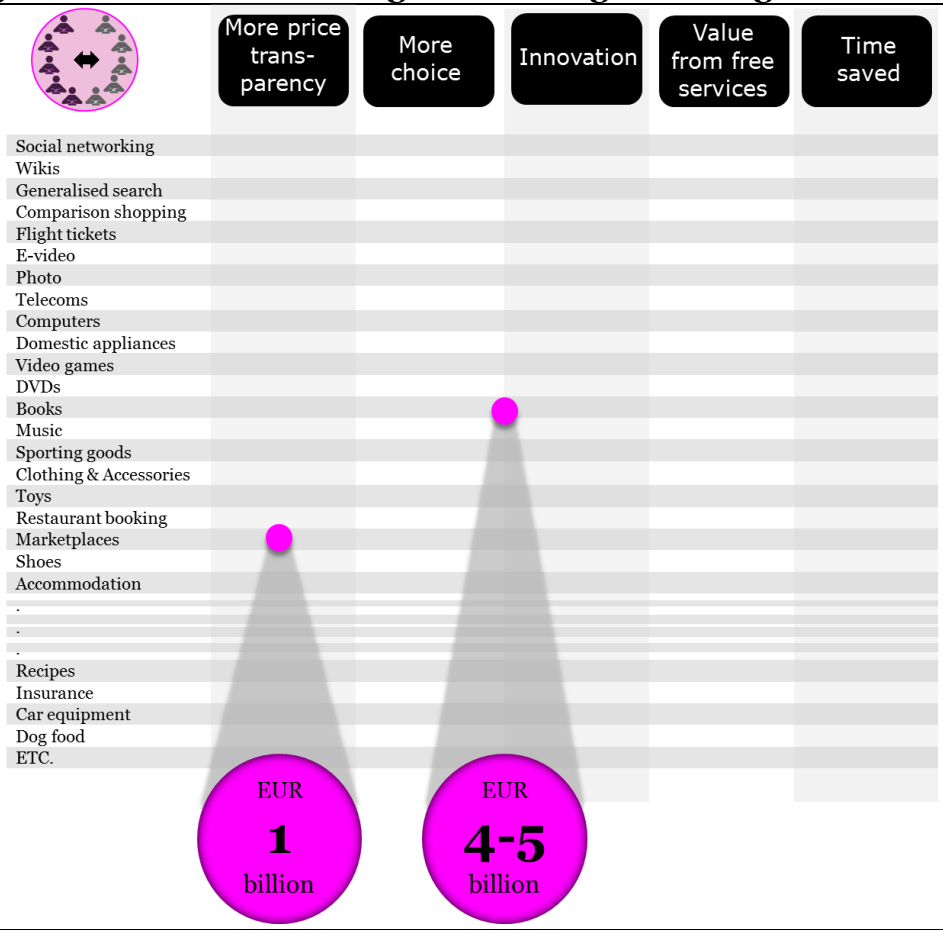
In particular, online intermediaries increase the amount of niche products, so-called 'long tail' offerings. Brynjolfsson et al (2010) examined this benefit by focusing on the online market for niche books.[37] The authors concluded that the long tail had grown 'longer' (i.e. more niche products) from 2000-2008.

> *The increased availability of niche books leads to a consumer surplus of EUR 4-5 billion*

[37] The calculations in the study are based on data from Amazon.

They further found that online intermediaries' sale of niche books that are unavailable in brick and mortar stores leads to a consumer surplus of EUR 4-5 billion. As mentioned in Section 3.1, this number only represents one corner of the total benefits from more innovation and long tail offerings, as only the market for niche books is analysed. This is illustrated in the figure below.

Figure 8 Benefits from long tail offerings focusing on books



Note: The categories presented are chosen arbitrarily as an illustration. We have identified this as an 'innovation' effect, but since it also represents 'More choice', we have illustrated the effect between the 'More choice' and 'Innovation' columns.

Source: Copenhagen Economics based on Frontier (2008) and Brynjolfsson et al (2010)

3.4 Value from free services

Many online intermediaries are offered to consumers for free. These online intermediaries seek alternative funding sources, such as through advertising or from sellers who use their services. When consumers use a service that represents a value to

them, but the 'price' they have to pay is zero, this is a further benefit from online intermediaries. [38]

Online intermediaries like Spotify, Facebook, YouTube or Wikipedia are all extremely popular with users and are all offered to consumers for free.[39] The difference between the value that these online intermediaries represent for consumers and the 'price' of zero that consumers are paying to use them is the consumer surplus. This consumer surplus from free services is not accounted for by the GDP measure.

Consumer surplus from free services

When consumers use a service that represents a value to them, but the 'price' they have to pay is zero, this is a further benefit from online intermediaries.

How then can we quantify the value of online intermediaries for consumers? Brynjolfsson and Oh (2012) develop a framework to quantify the welfare gain from free goods and services on the Internet by using the time spent online as an indicator of the 'price' that consumers are willing to pay for the service. The authors find a value of EUR 135 billion[40] from free online services and note that this estimate is higher than their estimate of the annual welfare gain from television.

McKinsey analysed the value of a special kind of free online services, namely the so-called 'ad-supported' services for which the platforms capitalise from advertisers while offering their service to users for free. Consumers typically dislike ads. However, despite the presence of ads, consumers still benefit from these online intermediaries.

> *Consumer surplus from free social networking platforms, wikis, search platforms and comparison shopping sites generated consumers surplus of EUR 22 billion*

Indeed, the analysis found that free ad-supported Internet services generated EUR 69 billion of consumer surplus in Europe. Approximately EUR 7 billion of this was consumer surplus generated by free social networking platforms, EUR 10 billion was generated from free search platforms while free wikis and comparison shopping platforms each generated around EUR 3 billion.[41] These quantified benefits are illustrated in the figure below.

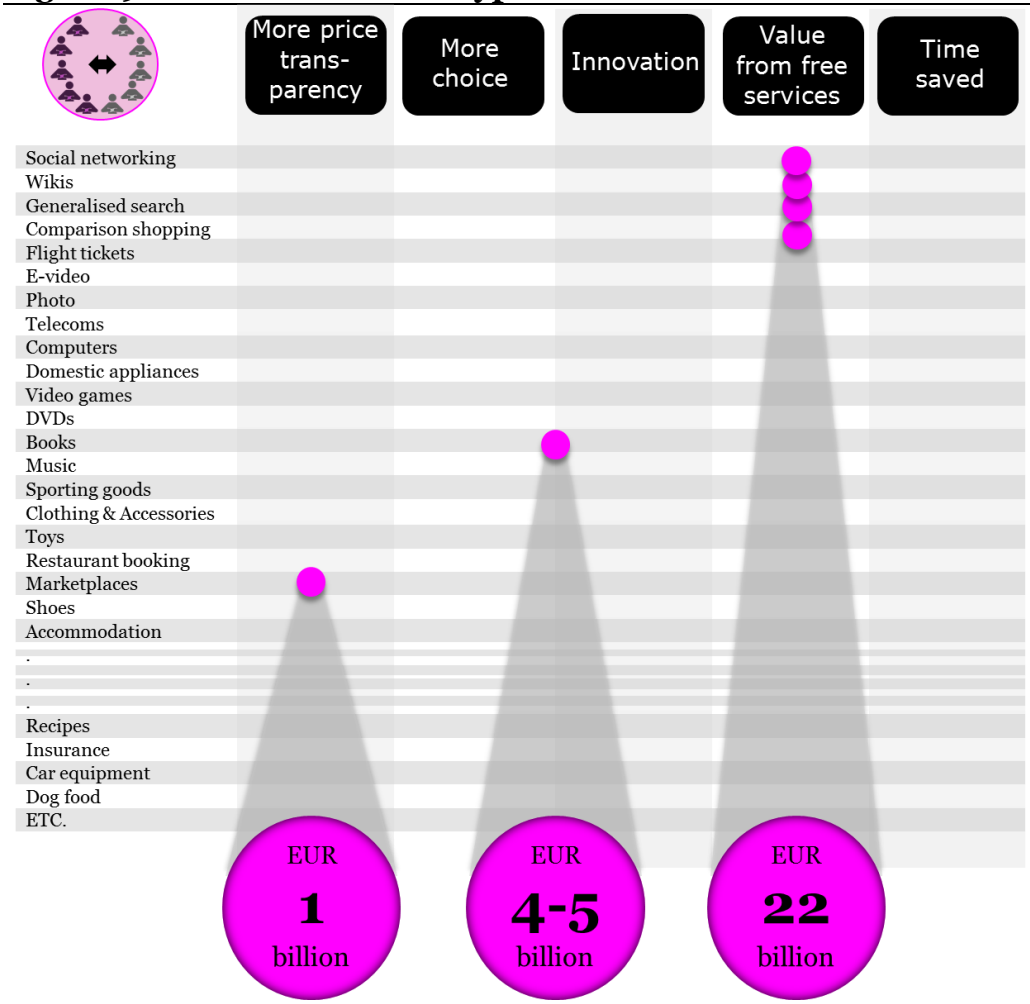
[38] Indeed, this benefit does not only arise when the service is free, but it is present in general when the price paid is less than the perceived value. Since many of the most popular online intermediaries have the feature of being offered for free, however, this effect is even more distinct for online intermediaries, and we therefore focus on value from free services here.

[39] While the explicit price of accessing or using many online intermediaries is zero, it has been argued that there is an implicit price since the consumer offers some of her privacy to the online intermediary. See for example OECD (2013)

[40] Plum (2015) scales the original US economy number to the European economy.

[41] McKinsey & Company for IAB Europe (2010).

Figure 9 Benefits from four types of free services



Note: The categories presented are chosen arbitrarily as an illustration.

Source: Copenhagen Economics based on Frontier (2008), Brynjolfsson et al (2010) and McKinsey & Company for IAB Europe (2010)

3.5 Time saved

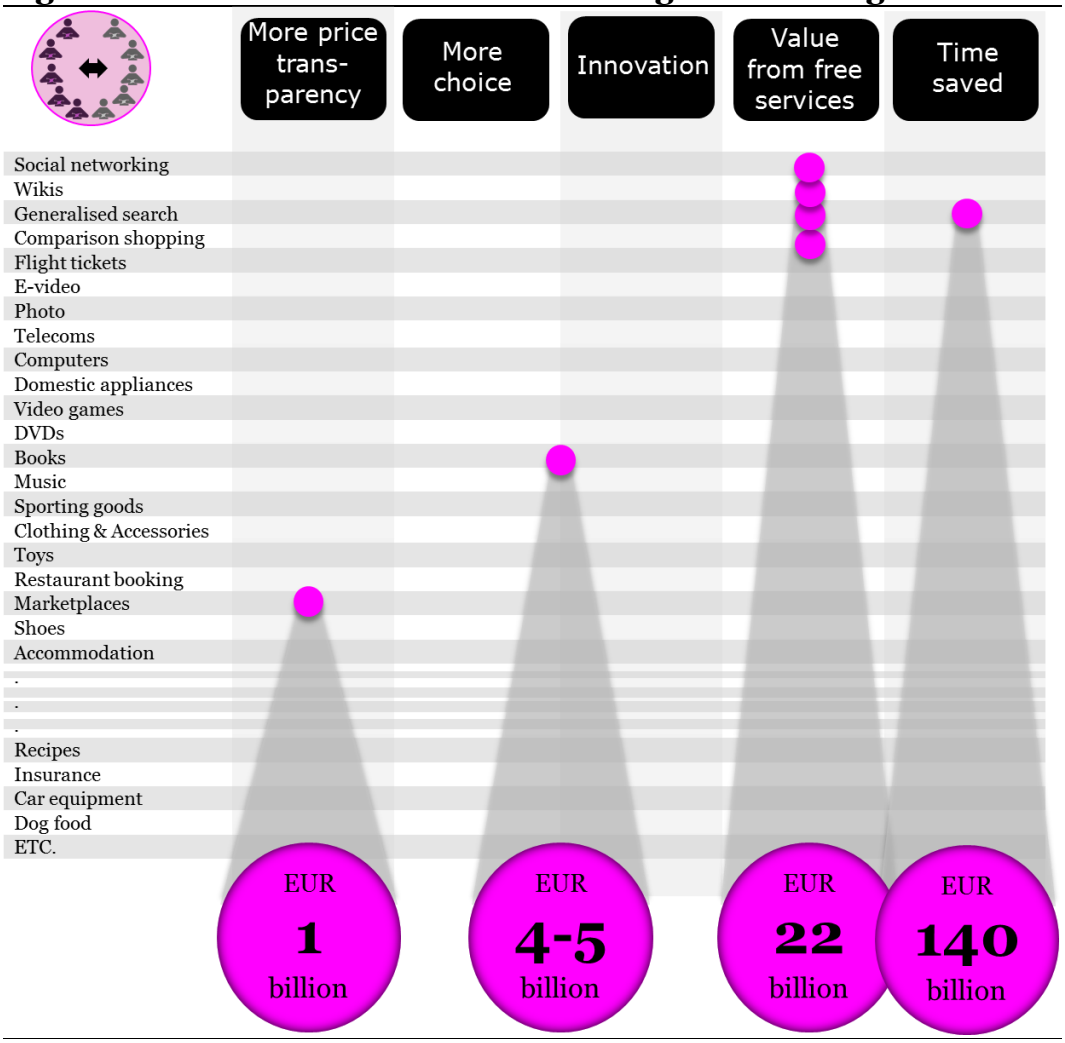
Online intermediaries give access to an enormous amount of information. For consumers, this means that information is only a click away. This easy access to information saves time.

Online intermediaries such as search engines or Wikipedia allow users to find answers to a broad range of questions quickly. Specialised search intermediaries help consumers locate the cheapest insurance with optimal coverage or an available hotel room at a holiday destination in just a couple of clicks.

When information is more easily available, consumers can finish a variety of tasks faster. This is true both in consumers' professional life where more time can then be devoted to

other aspects of work (which gives rise to productivity effects) and in consumers' personal life where more time can then be devoted to other leisure activities (which gives rise to increased quality of life).

Figure 10 Benefits from time saved using a search engine



Note: The categories presented are chosen arbitrarily as an illustration.

Source: Copenhagen Economics based on Frontier (2008), Brynjolfsson et al (2010), McKinsey & Company for IAB Europe (2010), Chen, Jeon and Kim (2013) and Varian (2013)

The time saving effects are present in many places. Chen, Jeon and Kim (2013) analysed just one of these by focusing on the time saved by online search. They asked people to answer questions using either a search engine or a physical library. On average, it took participants seven minutes to answer the questions using a search engine and 22 minutes using the library. Varian (2013) then converted this time saved into economic value. Using Varian's method on European data results in a value from online search in the EU of approximately EUR 140 billion in 2014.[42] Again, this substantial amount is just from *one* of the types of online intermediaries that save consumers time, as illustrated in the figure above.

> *When information is more easily available, consumers can finish a variety of tasks faster. Time savings resulting from search engines alone create a value of EUR 140 billion in the EU*

3.6 Online intermediaries facilitating alternative income

In several European countries, individuals are struggling to find work and build careers that make use of their skills and capabilities. Online talent platforms such as LinkedIn ease a number of labour market dysfunctions by connecting individuals with work opportunities more effectively. Such platforms aggregate individual résumés and enable matching with job postings from traditional employers. Furthermore, digital marketplaces that offer users flexible, short time or freelance work such as Uber, Freelancer and Upwork are rapidly growing. These platforms match freelance accountants, designers, writers etc. with other users who are looking to hire such workers on a freelance short term basis.

While hundreds of millions of people around the world already use these services, McKinsey & Company (2015) concludes that their capabilities and potential are still evolving. Even if these online intermediaries touch only a fraction of the global workforce, they are able to generate significant benefits for economies and for individuals. As these online intermediaries grow in scale, they will become faster and more effective clearing houses, able to provide more transparency into job markets while drawing in new participants.

> *Online talent platforms could add EUR 2.4 trillion to global GDP by 2025 and increase employment by 72 million full-time positions*

McKinsey & Company (2015) estimates that the online talent platforms could add EUR 2.4 trillion to global GDP by 2025, while increasing employment by 72 million full-time-equivalent positions. This includes effects through improved productivity, faster and newer matches as well as overall higher labour force participation. Countries with

[42] Assuming that the demand curve for questions defined by Varian is the same for the EU and the US, we have used data from Eurostat on median earnings (EUR 11.95 per hour) and population (500 million) in the EU27. An alternative calculation also presented in Varian (2013) uses the labour force instead of the total population. Using this form of calculation, the value from online search in the EU was EUR 60 billion in 2014, based on an employment number of 218 million.

persistently high unemployment and low participation, such as Spain and Greece, stand to benefit the most.

Online intermediaries further present an easy and simple way to share durable goods with others and thereby earn additional income. The sharing economy is growing in impact and size. As an example, the overall sharing economy in Denmark is estimated to account for EUR 14 billion in 2014.[43] This number is not captured in traditional GDP numbers. When it is added to Danish households' expenditure, it amounts to 10 per cent of total expenditure, a sizeable number.[44] Denmark is Europe's leading country when it comes to digital development,[45] and hence we expect the size of the sharing economy to be larger than average there. However, the number may serve as an indicator of what can be expected in other EU countries in the future.

Case Study: The sharing economy generates economic activity

airbnb As a specific example, Airbnb generated EUR 185 million of economic activity in Paris, and supported 1,100 jobs in 2013. While there is always some uncertainty in such calculations and not all of the economic activity generated is necessarily additional, these numbers are substantial. Almost half of Parisian hosts indicated that they rely on Airbnb income to pay for household expenses, and 20 per cent said that the income received from hosting allowed them to pursue other professional or personal interests, supporting a strong, creative and innovative society.[46]

Source: Copenhagen Economics

3.7 Broader welfare gains for EU citizens

EU consumers are also citizens who care about more than prices, product variety and the value of time. As citizens, EU consumers benefit from online intermediaries in numerous ways that go beyond traditional consumer theory. Many of the economic activities generated by online intermediaries do not occur within well-defined, final product markets, where there is an explicit price mechanism. Yet these activities still add value to consumers, and they should therefore be mentioned when we discuss benefits to consumers from online intermediaries.

For example, online social networking platforms are an important capacity for formation and maintenance of so-called *social capital*.[47] Studies show that online social networks are particularly important for people who otherwise find it difficult to generate and maintain interpersonal relationships. Online social networks lower barriers to interaction, encourage social interaction and raise psychological well-being.[48] Higher social capital further translates into intensified political participation of individuals.

43 Cevea analysis 2015. Available at http://cevea.dk/analyse/deleoekonomi-betydelig-faktor-nationaloekonomien.
44 Based on Statistics Denmark numbers for Danish households' total expenditure in 2014.
45 According to the EU's Digital Economy and Society Index (DESI).
46 Airbnb economic impact studies available at blog.airbnb.com.
47 Shah et al (2001).
48 See Bargh and McKenna (2004) and Ellison et al (2007).

Online intermediaries in the form of peer-to-peer transport services (such as e.g. Uber) can have broader economic effects on urban transportation. Peer-to-peer transport services allow citizens (peers) to provide on-demand transport to other citizens (peers) using their personal vehicles. Copenhagen Economics (2015) concluded that a well-functioning peer-to-peer transport service in the longer run is likely to create significant economic benefits by changing the overall composition of demand for transport and thereby influencing traffic flows. In addition, such a system comes with low investment costs, unlike many infrastructure projects with similar effects. Overall, a well-functioning peer-to-peer transport service can create new jobs (even when accounting for those jobs being displaced) and is likely to have a positive impact on the environment.

Furthermore, online intermediaries can help support important society goals such as democracy, freedom of speech and media plurality. For example, platforms such as Twitter give users a tool to share their views in real time. This empowers them with a public voice and enables them to connect with others who may share a similar or different views. Users get an unedited source of news and information and a continuous conversation around world news. In this way, online intermediaries also play a role in the media plurality debate. Plurality matters because it makes an important contribution to a well-functioning democratic society.[49]

Lastly, online intermediaries can also enable solutions that have the potential to improve public sector efficiency, enhance transparency and free up public resources that can be used for other purposes. Online intermediaries could have a significant effect on the environment, such as sharing economy sites, and affect scientific research by, among other things, improving access to information and facilitating communication between researchers.[50]

> *Twitter gives users a tool to share their view in real time. This empowers them with a public voice and enables them to connect with others who may share a similar or different view*

3.8 Concluding remarks

The economic impact of online intermediaries reaches beyond what can be measured by traditional methods. Online intermediaries reduce search and transaction costs and build trust. Consumers can access an enormous amount of information very quickly. Through these effects, online intermediaries serve to 'shorten distances' from sellers to buyers and from users to other users.

The 'shortened distance' means that online intermediaries affect consumers through many of the traditional channels we would normally think of in standard consumer theory, such as more price transparency, more product variety, and time savings.

[49] The UK regulator, OFCOM, it currently conducting an assessment of media plurality, see OFCOM (2015). OFCOM defines plurality with reference to the following desired outcomes of a plural market: i) ensuring that there is a diversity of viewpoints available, and consumed, across and within media enterprises; and ii) preventing any one media owner, or voice, having too much influence over public opinion and the political agenda.

[50] See for example Plum (2015), OECD (2013) and Methods digital (2014).

Furthermore, online intermediaries also allow consumers to act as 'sellers' or 'workers' in ways that would not otherwise have been possible, and this can lead to an alternative source of income. In this way, online intermediaries can provide benefits to consumers in the form of a new and flexible source of income. Lastly, online intermediaries have broader effects that go beyond classical consumer theory. Online intermediaries can increase social capital formation, lead to better labour market outcomes and positively benefit the environment. These effects can be more difficult to capture quantitatively, but may be just as important and sizeable as the more traditional effects.

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