European Parliament

DIRECTORATE-GENERAL FOR INTERNAL POLICIES

POLICY DEPARTMENT A
ECONOMIC AND SCIENTIFIC POLICY

Economic and Monetary Affairs

Employment and Social Affairs

Environment, Public Health and Food Safety

Industry, Research and Energy

Internal Market and Consumer Protection

Extending the Scope of the Geo-Blocking Prohibition: An Economic Assessment

In-Depth Analysis for the IMCO Committee

EN

2017

European Parliament

DIRECTORATE GENERAL FOR INTERNAL POLICIES

POLICY DEPARTMENT A: ECONOMIC AND SCIENTIFIC POLICY

Extending the scope of the geo-blocking prohibition: An economic assessment

IN-DEPTH ANALYSIS

Abstract

On 25 May 2016, the European Commission presented a proposal for a regulation on addressing unjustified geo-blocking. This paper illustrates the prevalence of geo-blocking in e-commerce and summarizes available relevant evidence. It also discusses the economic impact of lifting geo-blocking restrictions in online goods and copyrighted digital content services.

This document was prepared for Policy Department A at the request of the Committee on Internal Market and Consumer Protection.

IP/A/IMCO/2016-15 February 2017

PE 595.364 EN

This document was requested by the European Parliament's Committee on the Internal Market and Consumer Protection.

AUTHORS

J. Scott MARCUS, Senior Fellow, Bruegel.
Georgios PETROPOULOS, Research Fellow, Bruegel.

The excellent research assistance by Filippo Biondi (Bruegel) is gratefully acknowledged.

RESPONSIBLE ADMINISTRATOR

Mariusz MACIEJEWSKI

EDITORIAL ASSISTANT

Irene VERNACOTOLA

LINGUISTIC VERSIONS

Original: EN

ABOUT THE EDITOR

Policy departments provide in-house and external expertise to support EP committees and other parliamentary bodies in shaping legislation and exercising democratic scrutiny over EU internal policies.

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

Manuscript completed in February 2017

This document is available on the Internet at:
http://www.europarl.europa.eu/studies

CONTENTS

LIST OF ABBREVIATIONS

AV	Audiovisual
CS	Consumer Surplus
DSM	Digital Single Market
EC	European Commission
EP	European Parliament
EU	European Union
GDP	Gross Domestic Product
MS	Member State
PS	Producer Surplus
SVoD	Subscription Video on Demand
TVoD	Transactional Video on Demand
VAT	Value Added Tax
WTP	Willingness to Pay

LIST OF BOXES

LIST OF FIGURES

TABLES

EXECUTIVE SUMMARY

Geo-blocking occurs when traders operating in one Member State block or limit the ability of customers from other Member States to order their goods or online services, a practice that restricts cross-border commerce and specifically e-commerce. Surveys demonstrate that European consumers are frustrated by the level of geo-blocking; moreover, it can be viewed as a significant barrier to the Single Market.

At the same time, geo-blocking is a complicated issue where solutions need to be crafted with care in order to avoid unwanted and possibly undesirable consequences.

The estimated average annual growth rate of the online sales of goods in the EU was approximately 22% between 2000 and 2014[1]; however, cross-border e-commerce remains limited. In 2015, more than 50% of the EU population shopped online, but only 16% shopped online from a seller based in another EU Member State[2]. On the demand side, GfK's survey of consumer attitudes carried out on behalf of the European Commission found[3] that 86% of consumers reported concerns when buying online cross-border based on their survey of consumer attitudes on behalf of the European Commission. On the supply side, an average of 85.4% of the online sales of EU companies in 2014 were made in their home country, while only 10.3% were made in other EU countries and 4.3% were made in non-EU countries[4]. Geo-blocking is an obstacle to better performance.

The European Commission published on 25 May 2016 a legislative proposal for a Regulation on addressing unjustified geo-blocking and other forms of discrimination based on customers' nationality, place of residence or place of establishment within the internal market[5] on 25 May 2016. The proposal was an important follow up to European Commission's Communication on a Digital Single Market Strategy for Europe (DSM)[6] adopted in May 2015. The DSM strategy calls for the abolition of barriers that prevent the free movement of goods, persons, services and capital in a single market in which individuals and businesses can access and exercise online activities "under conditions of fair competition, and a high level of consumer and personal data protection, irrespective of their nationality or place of residence."

Article 4 of Commission's legislative proposal sets out three specific situations (Article 4) under which traders would be prevented from applying "different general conditions of access to their goods or services, for reasons related to the nationality, place of residence or place of establishment of the customer", thus effectively imposing non-discrimination obligations only on transactions that do not entail shipment across Member State borders. These obligations would apply only:

- In the case of selling of physical goods when they not delivered cross-border to the Member State of the customer by the trader or on his or her behalf;

[1] Duch-Brown, N. and Martens, B. (2014), "Consumer Benefits from the EU Digital Single Market: Evidence from Household Appliances Markets", JRC Technical Reports.

[2] Eurostat, Digital Single Market: promoting e-commerce for individuals.

[3] GfK (2015), "Consumer survey identifying the main cross-border obstacles to the DSM and where they matter most", European Commission.

[4] Eurobarometer 413 (2015), "Companies engaged in online activities", Flash Eurobarometer.

[5] European Commission (2016), "Proposal for a Regulation of the European Parliament and of the Council on addressing geo-blocking and other forms of discrimination based on customers' nationality, place of residence or place of establishment within the internal market and amending Regulation (EC) No 2006/2004 and Directive 2009/22/EC", COM(2016) 289 final.

[6] European Commission (2015), "Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions a digital single market strategy for Europe", COM(2015) 192 final.

- In the provision of electronically supplied services, other than services whose main feature is the provision of access and use of copyright protected works; or
- In services (other than those already covered) which are supplied to the customer in the premises of the trader or in a physical location where the trader operates.

In this study, we provide:

- Summaries of available economic evaluations of the economic consequences of prohibiting or limiting geo-blocking, with the legislative proposal in mind;
- An assessment of the likely economic consequences of extending the scope of the current proposal on geo-blocking to cover audiovisual services;
- Assessments of the likely economic consequences of extending the scope of the current proposal on geo-blocking to cover other online content services the main feature of which is the provision of access to and use of copyright protected works or other protected subject matter (such as music, e-books, and games);
- A critical economic assessment of scope of the legislative proposal, taking into account relevant literature and previous studies for the Parliament.

We use a consistent methodology for assessing the impact across audiovisual services, music, e-books and e-publishing, and games. We have analysed these services independently of one another, but there is an argument to be made that either all should be included in scope, or else all excluded. With the evolving nature of the sector, there is convergence across all forms of media.

The character and prevalence of geo-blocking

Geo-blocking is widespread in Europe, and it can be experienced at any of a number of points in the process of an online purchase: at the point where the web site is accessed, at the point where the prospective purchaser attempts to authenticate himself or herself, at the point where the prospective purchaser attempts to arrange for delivery, or at the point the prospective purchaser attempts to pay for the goods or services. In the end, the likelihood of a successful cross-border purchase is only about one in three. Consumer dissatisfaction with this state of affairs is high.

Cumulative failure rate (%) in a 2015 online cross-border mystery shopping survey

Source: GfK Mystery Shopping Survey and JRC/IPTS calculations (forthcoming), as quoted in the Commission's Impact Assessment report.

Consumer dissatisfaction with this state of affairs is high.

Evaluations of the economic consequences of prohibiting geo-blocking

We were asked to provide summaries of available evaluations of the economic consequences of prohibiting or limiting geo-blocking in general, and of the Commission's legislative proposal in particular.

The impact assessment accompanying the Commission's legislative proposal finds that their proposal should increase both consumer surplus and producer surplus. The empirical analysis on which the Commission's impact assessment was based found that ending geo-blocking of goods would reduce the average price of online goods by about 1%, and the average price of offline goods by about 0.5%, thus resulting in an increase in consumer surplus of 1.2%. It also found that profits of producers would increase 1.4%. We consider these findings to be reasonable. It is important to note, however, that Duch-Brown and Martens (2016) were modelling the effects if cross-border transaction costs for all goods were the same as for domestic sales, with the exception of an allowance for the cost of shipping the goods. Transaction costs for cross-border sales of goods are higher than domestic transaction costs for many reasons, of which geo-blocking is only one. **If enacted, the Commission's geo-blocking legislative proposals alone would not achieve all of the gains that the study has identified.** If one considers however the collective impact of the full range of Digital Single Market legislative proposals, including not only the proposed geo-blocking measures but also the proposed simplification of VAT, increased harmonisation of consumer protection rules, simplification of collection of rights under copyright, and reduction in cross-border parcel delivery prices, the combined impact might approach the levels identified in the study.

The scope of the empirical study is also not the same as that of the Commission's legislative proposal, but the conclusions are directionally correct.

Estimating potential economic benefits of extending the prohibition on geo-blocking to cover copyrighted services

We were called on to estimate the impact of extending the Commission's geo-blocking proposals so as to cover copyrighted services, including audiovisual services, music, e-books and e-publishing, and games. We employed a consistent methodology across the various forms of copyrighted material in order to do so.

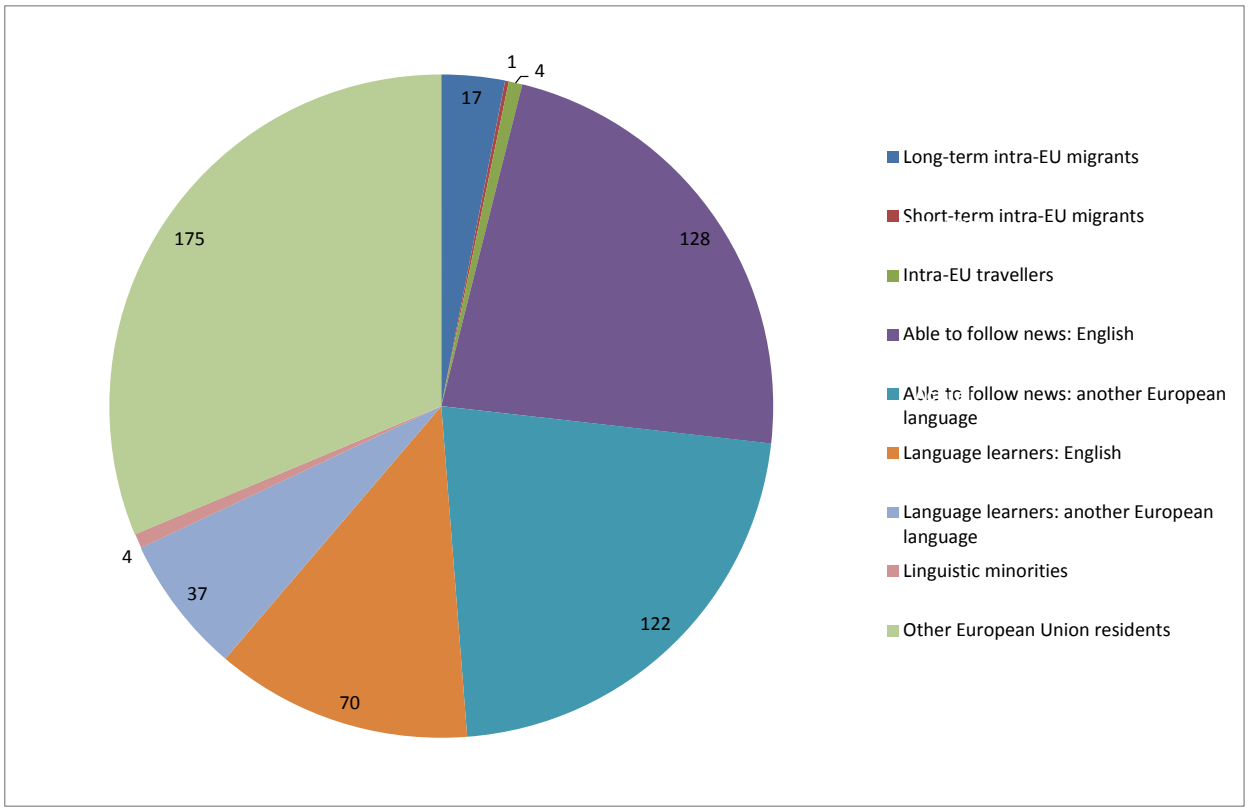
It is clear that there are different segments of the European population that will have differing levels of interest in various forms of digital content. In order to analyse demand, it was necessary to proceed in steps with that in mind:

- We began with a taxonomy (i.e. a categorisation) of different population segments within the EU that are likely to have varying degrees of demand, and estimated the number of individuals and households in each group;
- We estimated the number of individuals (or, where relevant, the number of households) in each group that would be likely to wish to procure the service in question;
- We estimated the distribution of the willingness to pay (WTP) of those who would wish to procure the service, establishing lower and upper bounds;
- We corrected the results to reflect that some are already receiving the service in some other way (for instance, by "grey market" legal satellite services in the case of audiovisual services) and to reflect the fact that the service may not be realistically available to all those who desire it.

The taxonomy distinguishes between those who are away from their country of origin (including long-term and short-term intra-EU migrants, as well as travellers) versus those who either know a foreign language or are learning one.

These factors influence the willingness to pay for cross-border access to content as well as the ability to absorb it. The population taxonomy that we used for analysis of audiovisual content, music, e-books and e-publishing, and games appears in the following figure.

Population segments in the EU that may have an interest in cross-border access to digital content (millions of individuals).



Source: Bruegel estimates (see Table 2)

We have attempted to use current, reliable quantitative data wherever it was available; however, in many cases, it was necessary to make estimates and extrapolations due to lack of data.

Extending the legislative proposal to cover audiovisual services

The means by which consumers receive audiovisual content is evolving rapidly, with rapid growth in volume and revenues associated with digital content under both subscription and transactional payment models.

Previous studies have demonstrated that long-term intra-EU migrants have substantial interest in content from their country of origin, and also substantial willingness to pay (WTP) for it. Short-term intra-EU migrants, travellers, linguistic minorities, and those who are studying a language or are already proficient in it are all likely to have interest and willingness to pay for cross-border access audiovisual content.

We have identified an aggregate EU-wide opportunity of € 378 million per annum, with a lower bound of € 189 million per annum and an upper bound of € 945 million per annum, for the elimination of geo-blocking of audiovisual content. In each case, this represents the incremental amount that consumers are willing to spend; however, the degree to which this can realised in practice is uncertain.

An additional potential benefit of a prohibition on the geo-blocking of audiovisual content is that widespread lawful availability might reduce incentives for piracy of content – unfulfilled demand tends to encourage piracy.

In the audiovisual sector, exclusive territorial licenses for only one Member State are very common. Together with the widespread use of release windows, this leads to a portioning not only in terms of geography, but also of time.

There is a natural temptation to view this partitioning of the European audiovisual market as harmful, and there is indeed no question that it runs counter to the logic of the Single Market that we take for granted in most contexts; however, many would argue that this market partitioning in terms of both geography and time exists for a number of valid reasons, and generates benefits for European consumers, not just costs. Notably, there are credible claims that a prohibition on geo-blocking of online audiovisual content might raise concerns about the creation of new content and how it would be financed. There is a risk that less content would be produced, thus reducing consumer choice and consumer welfare. Concerns have also been expressed as to whether cross-border subscription-based services could be profitable.

One could consider attempting to mitigate these concerns by limiting any prohibition on geo-blocking either to works for which sufficient time has elapsed from the date of first theatrical release to ensure that nearly all of the revenue potential has already been realised, and/or by limiting the prohibition to transactional services (TVoD).

Extending the legislative proposal to cover other online content services such as music, e-books, and games

We analysed the market opportunity associated with elimination of geo-blocking of music, and also of e-publishing and e-books, using the same methodology as for audiovisual content.

There are significant differences in the way in which consumers relate to these various forms of content. For instance, language skills are even more important for e-books than for audiovisual content; conversely, language skills are much less crucial for digital music.

Based on an analysis by Aguiar and Waldfogel (2014), prohibiting geo blocking of digital music would provide consumers in ten sampled European countries with a gain of €19 million per year (a 1.8 % increase), or an average of €0.05 per capita, while producers in the ten sampled European countries would gain €10 million per year (a 1.1% increase), or an average of €0.025 per capita. The gains are fairly small because cross-border availability is relatively high; thus, elimination of geo-blocking would have only a limited effect.

Elimination of geo-blocking in the music sector can be expected to have positive effects both for consumers and for producers, but the effects differ among the Member States. In some Member States, consumers are more likely to listen to music from elsewhere than to music produced within their own Member State; likewise, music from some Member States is more sought after than that of others by residents of other Member States.

Societal welfare is the sum of consumer welfare and producer welfare. The results of Aguiar and Waldfogel (2014) suggest that producer surplus (profits) declines slightly in Belgium, Ireland, or the UK; however, net societal welfare increases in nearly every Member State with the sole exception of the UK.

Are these findings for Belgium, Ireland, or the UK of great concern? We would argue not. The findings do not demonstrate full *Pareto optimality* (where at least one party is better off, and nobody is worse off); however, they demonstrate *Kaldor-Hicks optimality*, where those that are made better off could hypothetically compensate those that are made worse off and lead to a Pareto-improving outcome. This is usually sufficient to justify a policy intervention.

Since the production of music is less costly than the production of films, any potential negative dynamic effects on financing the content from removing geo-blocking restrictions (e.g. in the UK) are less of a concern.

Any prohibition of geo-blocking for e-books would need to take cognizance of fixed price obligations imposed in several of the Member States.

The average online purchase of an e-publication often involves very little money. Consequently, the transaction costs associated with the support of cross-border sales (including verification of the location of the consumer in order to assess the proper VAT, and to conform to any fixed price rules) loom large relative to revenues. Special care may be needed in order to ensure that any rules imposed do not simply force small merchants to exit the e-publications business.

The aggregate opportunity, in millions of euro per year, appears in following table based on current usage (and thus without considering how usage might evolve in the future). Whether the opportunity could be fully realised depends on many factors, including the business decisions that market players would eventually take.

The aggregate annual opportunity associated with prohibiting geo-blocking of various copyrighted services.

	Audiovisual content	Music	e-books and e-publishing
Minimum aggregate opportunity (€ mn)	€ 189,1	€ 12,1	€ 21,1
Expected aggregate opportunity (€ mn)	€ 378,1	€ 19,7	€ 31,6
Maximum aggregate opportunity (€ mn)	€ 945,4	€ 29,5	€ 45,7

Source: Bruegel calculations

Computer games and software are a complicated space where in general geo-blocking does not appear to be taking place, other than the challenges with cross-border payments that impact all online purchases. Applying the same methodology used for the analysis of the other copyrighted services therefore leads us to conclude that a prohibition on geo-blocking would have minimal effect; on the other hand, the cost of imposing such a rule would be limited to transition costs and transaction costs. In light of the evolving nature of the sector and the ongoing convergence across all forms of media, there would appear to be logic in taking a consistent approach to all forms of online digital media.[7]

The legislative proposal itself

Aside from the areas already addressed, there are a few additional aspects of the Commission's legislative proposal that in our view merit further consideration.

[7] The Commission has argued the same. European Commission (2015), "Impact Assessment accompanying the document Proposal for a Regulation of the European Parliament and of the Council to ensure the cross-border portability of online content services in the internal market" SWD/2015/0270 final, page 21.

The first relates to the exemption of small merchants from non-discrimination obligations under Article 4. The Commission's text is fairly careful to exclude from the scope of Article 4 instances in which cross-border parcel delivery is required; however, many other factors cause cross-border costs (and related learning costs and transaction costs) to be higher than domestic costs, and we would suggest that these may need greater recognition than is visible in the current text. Among the relevant costs are:

- Consumer protection rules in a number of the Member States that exceed the requirements of the Consumer Rights Directive;
- Different VAT rules and rates;
- Packaging and labelling rules.

Some of these are acknowledged in other Commission legislative proposals, and might possibly be mitigated by measures already proposed; however, there is no assurance as to what will ultimately be enacted, nor is there any assurance that these other instruments (many of which are Directives rather than Regulations) would come into effect before the geo-blocking Regulation does.

In this legislative proposal, the Commission proposes to exempt any traders that are exempt from VAT from Article 4 obligations when they ship digital online goods to other Member States; for many of the Member States, however, this establishes a revenue threshold of just €5000, which is in our view far too low.

Aside from that, the legislative proposal requires non-discrimination for categories of good and services that exclude any goods that require cross-border shipment. This is a rather large "carve out". One could instead consider a non-discrimination obligation under these circumstances that precludes the price premium for exceeding the justifiable cost difference, the largest component of which is the cost of cross-border parcel delivery. Clearly, it would be necessary to have some simple means of setting a cap to this price difference; otherwise, transaction costs would eat up any potential benefits.

The incremental cost of cross-border parcel delivery should never exceed the degree to which the published price of shipping the parcel in question cross-border by the National Postal Operator (NPO) exceeds the published price of shipping the same parcel to a domestic destination by the same NPO. Often, the difference will be less. Whether any other costs need to be explicitly accommodated would require some analysis, but this seems to be an issue worth studying (for future legislation if not for an amendment to the current legislative proposal).

Finally, we observe that reform of copyright is proceeding at the same time, but on a separate legislative track from that of geo-blocking. These are distinct problems, but they are interrelated[8]. There is a risk that the gains identified in this study will not be realised unless copyright is also modernised.

[8] See for instance KEA (2012), "Licensing music works and transaction costs in Europe".

1. INTRODUCTION

The Digital Single Market can generate significant gains and efficiencies in Europe. By removing barriers to online trade, both consumers and traders should be able to better appropriate the benefits from the digital value chain.

Geo-blocking occurs when traders operating in one Member State block or limit the ability of customers from other Member States to order their goods or online services. Geo-blocking interferes with the benefits of the Digital Single Market inasmuch as it serves to limit cross-border access to goods and services, and serves to facilitate direct and indirect discrimination by traders that segment the market based on the customer's nationality, place of residence, or place of establishment.

This paper reviews the economic evidence associated with the prevalence of geo-blocking in EU markets, and discusses the potential economic impact of lifting geo-blocking for consumers and for online suppliers of goods and services. Copyrighted digital content services are an area of special focus. We specifically provide:

- summaries of available economic evaluations of the economic consequences of prohibiting or limiting geo-blocking, with the legislative proposal in mind;
- an assessment of the likely economic consequences of extending the scope of the current proposal on geo-blocking to cover audiovisual services;
- assessments of the likely economic consequences of extending the scope of the current proposal on geo-blocking to cover other online content services the main feature of which is the provision of access to and use of copyright protected works or other protected subject matter (such as music, e-books, and games);
- a critical economic assessment of scope of the legislative proposal, taking into account relevant literature and previous studies for the Parliament.

We use a consistent methodology for assessing the impact across audiovisual services, music, e-books and e-publishing, and games. We have analysed these services independently of one another, but there is an argument to be made that either all should be included in scope, or else all excluded. With the evolving nature of the sector, there is convergence across all forms of media.

This study is organized as follows:

- **Chapter 2** provides an introduction to geo-blocking and considers when it might be justified. It illustrates that cross-border commerce can be negatively affected by certain barriers, and discusses the Commission's proposed geo-blocking Regulation and the impact it is likely to have if implemented.
- **Chapter 3** provides an overall discussion of geo-blocking of digital content services that are subject to copyright and territorial licensing. In order to assess the potential impact of extending the scope of Commission's proposal to digital content services, it is necessary to analyse different kinds of content services (audiovisual, music, e-books games), which is the function of the subsequent two chapters. Chapter 3 describes the common methodology that is used, and also identifies the various population groupings that are likely to have distinctive interest in digital content services, and willingness to pay for them.
- **Chapter 4** provides an overview geo-blocking of copyrighted audiovisual content, and assesses the economic impact of imposing a prohibition on geo-blocking.
- **Chapter 5** provides an overview geo-blocking of copyrighted music, e-books and games, and assesses the economic impact of imposing a prohibition on geo-blocking.
- **Chapter 6** summarises our key findings in regard to the questions that we were called on to study.

2. GEO-BLOCKING AND THE COMMISSION'S PROPOSED REGULATION

KEY FINDINGS

- The estimated average annual growth rate of the online sales of goods was approximately 22% between 2000 and 2014.
- In 2015, more than 50% of the EU population shopped online, but only 16% shopped online from a seller based in another EU Member State.
- 86% of consumers reported concerns when buying online from another country.
- High delivery cost is one of the most frequent cited problems for cross-border commerce.
- 36% of retailers do not sell cross-border for at least one of the product categories they sell.
- In an attempt to promote the Single Market, and in line with its Digital Single Market Strategy, the Commission made legislative proposals on 25 May 2016 to create a new Regulation to address "geo-blocking and other forms of discrimination based on customers' nationality, place of residence or place of establishment".
- The proposed Regulation prevents discrimination in a number of specific cases, all of which correspond to circumstances where transportation costs can be expected to be negligible; however, many other categories of goods and services are excluded, including copyrighted content.
- The impact assessment accompanying the proposal concludes that eliminating geo-blocking for all goods would produce benefits for both producers and consumers.
- The empirical analysis on which the Commission's Impact Assessment was based found that ending geo-blocking of goods would reduce the average price of online goods by about 1%, and the average price of offline goods by about 0.5%, thus resulting in an increase in consumer surplus of 1.2%. It also found that profits of producers would increase 1.4%. We consider these findings to be reasonable.

In this chapter, we provide an overview of geo-blocking in the EU, review the Commission's legislative proposals that seek to address geo-blocking, and review and assess the main study that has attempted to quantify the benefits from eliminating geo-blocking.

2.1. Cross-border e-commerce and geo-blocking in the EU

On 25 May 2016, the European Commission published a proposal for a regulation "*on addressing unjustified geo-blocking and other forms of discrimination based on customers' nationality, place of residence or place of establishment within the internal market and amending Regulation (EC) No 2006/2004 and Directive 2009/22/EC*"[9]. This proposal is a follow up to the Digital Single Market Strategy (DSM)[10] adopted in May 2015.

Identified as one of the Commission's ten top political priorities, the DSM strategy calls for the abolition of barriers that prevent the free movement of goods, persons, services and capital in a single market in which individuals and businesses can access and exercise online

[9] European Commission (2016), "Proposal for a Regulation of the European Parliament and of the Council on addressing geo-blocking and other forms of discrimination based on customers' nationality, place of residence or place of establishment within the internal market and amending Regulation (EC) No 2006/2004 and Directive 2009/22/EC", COM(2016) 289 final.

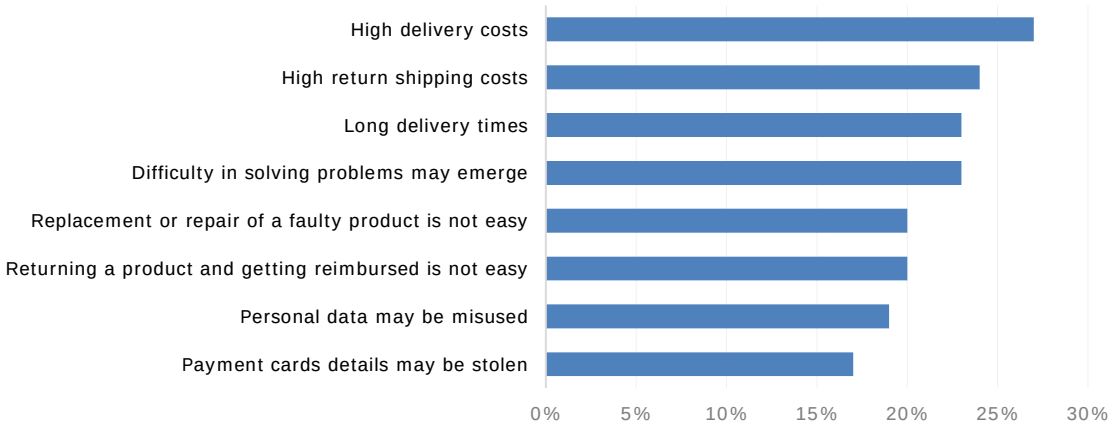
[10] European Commission (2015), "Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions a digital single market strategy for Europe", COM(2015) 192 final.

activities *"under conditions of fair competition, and a high level of consumer and personal data protection, irrespective of their nationality or place of residence."*

Geo-blocking occurs when traders operating in one Member State block or limit the ability of customers from other Member States to order their goods or online services, a practice that restricts cross-border commerce and specifically e-commerce. E-commerce in the EU has grown steadily. The estimated **average annual growth rate of the online sales of goods was approximately 22% between 2000 and 2014**[11]; however, **cross-border e-commerce remains limited**. In 2015, more than 50% of the EU population shopped online, but only 16% shopped online from a seller based in another EU Member State[12].

On the demand side, GfK reports[13] that **86% of consumers reported concerns when buying online cross-border** based on their survey of consumer attitudes on behalf of the European Commission. Delivery issues feature prominently among the concerns that were raised. Figure 1 shows that about a quarter of consumers were particularly concerned about high delivery costs (27%), high return shipping costs (24%) and long delivery times (23%). It is worth noting, however, that these concerns were also present when purchasing online in the country of residence.

Figure 1: Main concerns about buying online cross-border inside EU



Source: Bruegel elaboration based on GfK (2015).

On the supply side, for EU companies that sell online, an average of 85.4% of their online sales in 2014 came from their home country, while only 10.3% were from other EU countries and 4.3% from countries outside the EU[14].

The main **barriers that motivate merchants to restrict the online cross-border supply of products and services** are:

- The **high cost of delivery**. Eurostat (2015) conducted a comprehensive survey of businesses in 2015. Among firms already conducting e-commerce on a cross-border basis (or that did so in the past), 51% said delivery prices were too high when selling to other EU countries, and 27% said this was a "major problem". Among companies that did not sell online to other EU countries but were trying to at the time of the survey, 62% said that high delivery costs were a problem, and 41% considered these costs a major problem. Of firms not selling online, 57% said that delivery costs were

[11] Duch-Brown, N. and Martens, B. (2014), "Consumer Benefits from the EU Digital Single Market: Evidence from Household Appliances Markets", JRC Technical Reports.

[12] Eurostat, Digital Single Market: promoting e-commerce for individuals.

[13] GfK (2015), "Consumer survey identifying the main cross-border obstacles to the DSM and where they matter most", European Commission.

[14] Eurobarometer 413 (2015), "Companies engaged in online activities", Flash Eurobarometer.

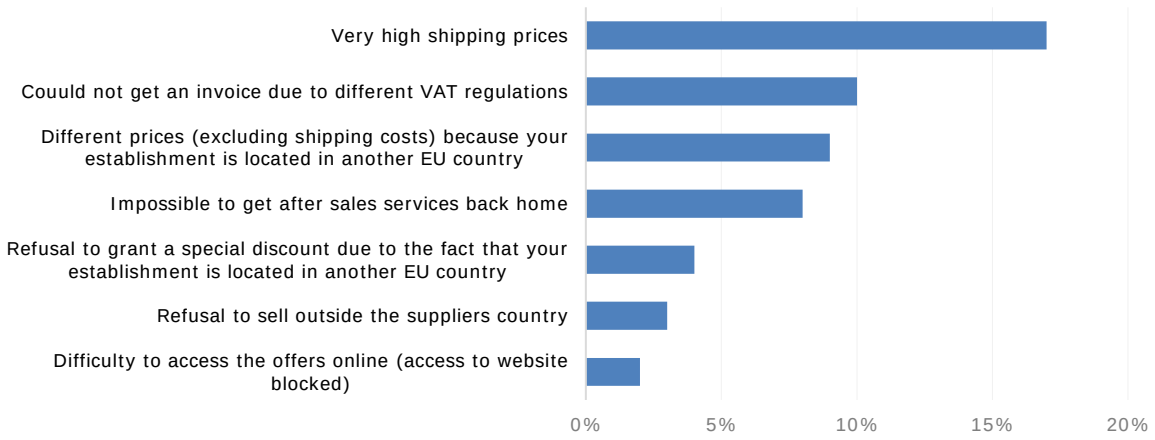
too high, and that this was a major problem. Significantly, for all three groups, high delivery costs were perceived as the most serious single barrier to cross-border e-commerce.

- **Territorial restrictions** on selling to residents of other Member States **on the basis of vertical agreements.** In the case of goods or services subject to copyright, these vertical restrictions are often implemented in practice by means of limiting the geographic scope for which rights are granted. Territorial restrictions should not be assumed to be detrimental to societal welfare – there are cases where they can generate benefits, as we explain in Chapter 4.
- Additional **regulatory costs associated with different legal and tax systems in Member States**. Differences in national consumer laws or in VAT systems may discourage firms from selling cross-border because in order to avoid the associated administrative costs, together with the burden of needing to understand these arrangements in multiple Member States.
- **Labelling and packaging rules** and selling arrangements might differ between the country of the trader and the consumer. That may require the trader to adapt his products and packaging accordingly.

It is thus clear that there are genuine differences between selling within a Member State, versus selling across Member States. The degree to which these differences constitute legitimate grounds to turn away some or all cross-border prospective customers is a complex question to which we will return repeatedly.

The geo-blocking Flash Eurobarometer 434 (2016) survey covers purchases of goods and services, whether online, offline or by distance sales (phone/fax), subject to publicly available general sales conditions, excluding purchases of goods/services for resale. It concludes that around 10% of companies that have engaged in cross-border sourcing in the last 12 months have had problems concluding their purchases. The most frequently cited problems are presented in Figure 2.

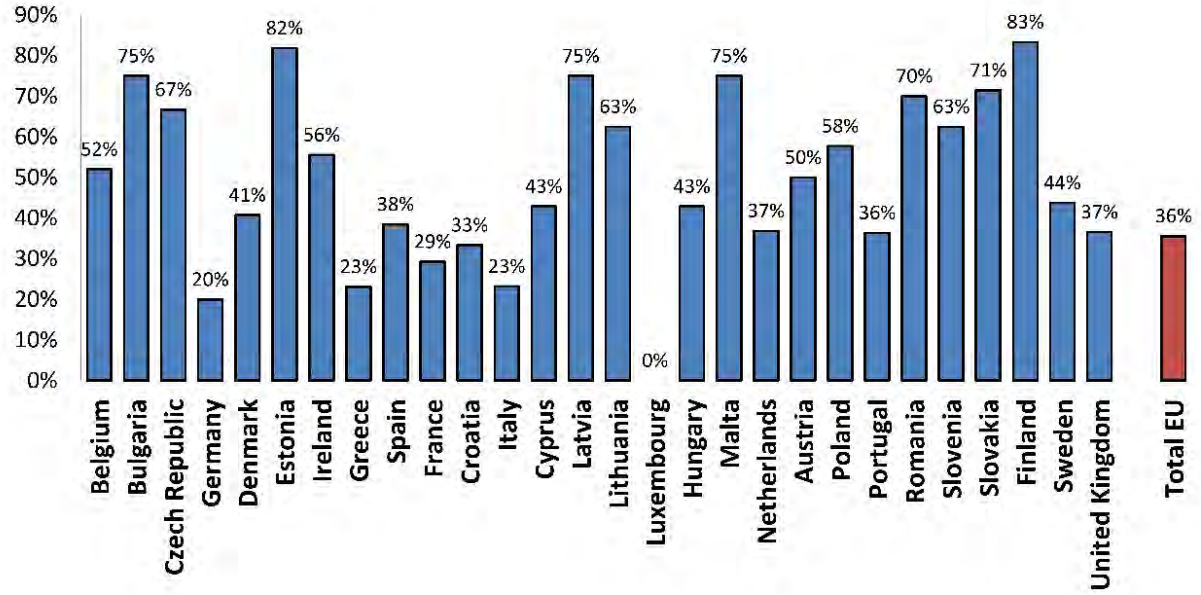
Figure 2: Problems encountered by companies when buying goods and services from another EU country



Source: Bruegel based on Eurobarometer 434 (2016).

According to the preliminary report of the e-commerce in goods sector inquiry[15], **36% of retailers do not sell cross-border for at least one of the product categories they sell.** However, this percentage varies across Member States as illustrated by Figure 3[16].

Figure 3: Retailers by Member State that do not sell cross-border in at least one product category for Member States



Source: SWD(2016) 70 final.

Geo-blocking practices can be divided into four main categories: denial of access to a website, automatic re-routing, refusal to sell, and changing the terms and conditions and/or prices (see Figure 4). Each practice can take different forms and can happen at different stages of the shopping process. In some cases, geo-blocking takes place immediately or automatically. Still, in the majority of cases, consumers spend significant time and effort on a website, attempting to make a cross-border online purchase, before realising that the seller or service provider will not sell to them or will only sell under the desired or expected terms and conditions.

[15] European Commission (2016), Commission staff working document, "Preliminary Report on the E-commerce Sector Inquiry", SWD(2016) 312 final.

[16] European Commission (2016), Commission staff working document, "Geo-blocking practices in ecommerce - Issues paper presenting initial findings of the e-commerce sector inquiry conducted by the Directorate-General for Competition", SWD(2016) 70 final.

Figure 4: Cumulative failure rate (%) in a 2015 online cross-border mystery shopping survey

Source: GfK Mystery Shopping Survey and JRC/IPTS calculations (forthcoming), as quoted in the Commission's Impact Assessment report.

2.2. The Commission's proposed Regulation

In an attempt to promote the Single Market, and in line with its Digital Single Market Strategy[17], the Commission made legislative proposals on 25 May 2016 to create a new Regulation to address "geo-blocking and other forms of discrimination based on customers' nationality, place of residence or place of establishment"[18].

Article 3 of the Commission's proposed Regulation would prohibit traders from preventing access to their online interface (e.g. their web site) on the basis of the customer's residence. It would also require the customer's consent to rerouting the customer to a different web site.

In Article 4, the legislative proposal also sets out three specific situations (Article 4) under which traders would be prevented from applying "different general conditions of access to their goods or services, for reasons related to the nationality, place of residence or place of establishment of the customer":

1. In the case of selling of physical goods when they are not delivered cross-border to the Member State of the customer by the trader or on his or her behalf.
2. In the provision of electronically supplied services, other than services whose main feature is the provision of access and use of copyright protected works.
3. In services (other than the ones covered in the second situation), which are supplied to the customer in the premises of the trader or in a physical location where the trader operates (for example, hotel accommodation, leisure activities, car hire, festivals and so on)[19].

[17] European Commission (2015), "Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions a digital single market strategy for Europe", COM(2015) 192 final.

[18] European Commission (2016), "Proposal for a Regulation of the European Parliament and of the Council on addressing geo-blocking and other forms of discrimination based on customers' nationality, place of residence or place of establishment within the internal market and amending Regulation (EC) No 2006/2004 and Directive 2009/22/EC", COM(2016) 289 final.

[19] This non-discrimination principle is in line with Article 20(2) of the Services Directive, which prohibits discrimination based on nationality or place of residence except where those differences are directly justified by

Finally, Article 5 would prohibit traders from applying "different conditions of payment for any sales of goods or provision of services" based on the same considerations.

Article 4 would effectively impose non-discrimination obligations only on transactions that do not entail shipment across Member State borders. There are a number of additional exclusions, many of which are significant:

- Copyrighted digital content services (such as films, TV series, broadcasts of sport events, software, eBooks, online games and music) are excluded from the situations in which geo-blocking is prohibited. The Commission's Impact Assessment suggests that the proposal seeks to avoid conflicts or overlaps with legislative proposals that the Commission has already made that aim "at modernising the copyright framework, focusing on allowing for wider online availability of content across the EU, adapting exceptions and limitations to the digital world, and achieving a well-functioning copyright market place"[20]. The Commission's Impact Assessment also notes overlaps and implicitly expresses concerns about possible overlaps with the Audiovisual Media Services Directive (AVMS)[21] and the with the Satellite and Cable Directive[22], both of which are under review.
- Merchants that are exempted from payment of VAT (typically because their turnover is less than the threshold defined in their Member State) would not be subject to the obligations in regard to "the provision of electronically supplied services".
- The obligations will not apply if other EU or Member State law "prevents the trader from selling the goods or providing the services to certain customers or to customers in certain territories".
- Analogously, in Member States where the price of books is regulated, Article 4 "shall not preclude traders from applying different prices to customers in certain territories in so far as they are required to do so".
- The Regulation would not apply to transactions where goods or services are purchased by a business for resale. Therefore, vertical agreements in which retailers are not the final-end consumers are excluded from these situations where geo-blocking is prohibited. Such cases are evaluated through the Commission's Vertical Block Exemption Regulation applying a case-by-case analysis when needed.

2.3. The Commission's estimate of the benefits of elimination of geo-blocking

What would the economic impact be of lifting geo-blocking restrictions in the way that Commission proposes?

---

objective criteria. The provisions attempt to strike a balance between, pursuing the Single Market objective and addressing the potentially harmful effects of price and other discrimination. However, as the Commission admits in the geo-blocking regulatory proposal, the Directive was not an effective intervention to achieve the pursued objectives.

[20] European Commission (2016), "Proposal for a Regulation of the European Parliament and of the Council laying down rules on the exercise of copyright and related rights applicable to certain online transmissions of broadcasting organisations and retransmissions of television and radio programmes", COM(2016) 594.

[21] DIRECTIVE 2010/13/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 10 March 2010 on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the provision of audiovisual media services (Audiovisual Media Services Directive), OJ L 95/1, 15.4.2010.

[22] COUNCIL DIRECTIVE 93/83/EEC of 27 September 1993 on the coordination of certain rules concerning copyright and rights related to copyright applicable to satellite broadcasting and cable retransmission, OJ L 248/15, 6.10.1993.

The Commission's empirical estimate of the costs and benefits of the legislative proposal, as expressed in their Impact Assessment,[23] notes that if current unjustified geo-blocking practices were to cease, "**consumer surplus increase from online purchases of tangible goods could amount to 0.8% on average** for the EU28, with variations across Member States"[24], and that "**producer surplus (profits) could increase by 1.0% on average** across Member States".[25]

These claims are somewhat unusual inasmuch as measures that correct over-pricing to consumers typically increase consumer surplus, but at the cost of reducing producer surplus. The Impact Assessment itself does not adequately explain the anomaly. To understand what is happening, it is necessary to refer to the empirical framework on which the Commission based its findings, which appears in Duch-Brown and Martens (2016)[26].

Duch-Brown and Martens (2016) models the effect of geo-blocking as representing infinitely high costs for cross-border trade, and they develop an empirical model in which a removal of geo-blocking restrictions is translated into a reduction in trade costs to more realistic levels. This modelling choice enables them to estimate the welfare effects from removing geo-blocking restrictions.

The assessment used a database of sales:

- of 4 electronics products (smartphones, tablets, laptops and desktop computers), which on average represent 60% of total consumer electronics retail sales;
- in 10 EU countries[27], with market shares on average 85% in those products.

The paper then linearly extrapolates these estimates to cover all online goods. To do that, they implicitly assume that these 4 products are representative of the entire electronics products sector, and that their share would remain constant in the absence of geo-blocking. They also extend these estimates geographically from the 10 Member States to EU 28.

On this basis, Duch-Brown and Martens (2016) claims that **prices would decrease across in all countries, both online (-1% on average) and offline (-0.5% on average)**. Trade is expected to increase by nearly €630 million. Based on these estimates, they find that the removal of geo-blocking restrictions on products would **increase the consumer surplus (CS) in the EU28 by 1.2%**, primarily based on the reduction in the price paid for goods and to a lesser degree on the ability of consumers to choose from a wider range of goods and services. They suggest, however, that the increased cost of transportation would tend to restrict arbitrage opportunities, and would consequently tend to limit price convergence across Member States. They also find an **increase of producer surplus (PS) of 1.4%**.

The gain in consumer surplus is unsurprising. The gain in producer surplus is driven by two factors:

---

[23] European Commission (2016), "Impact Assessment accompanying the document Proposal for a regulation of the European Parliament and of the Council on addressing geo-blocking and other forms of discrimination based on place of residence or establishment or nationality within the Single Market. European Commission", SWD(2016) 173 final.

[24] Ibid., Page 41.

[25] Ibid., Page 39.

[26] Duch-Brown, N. and B. Martens (2016) , The Welfare effects of lifting geoblocking restrictions in the EU Digital single Market, JRC/IPTS Digital Economy Working Paper.

[27] Belgium, Denmark, France, Germany, Great Britain, Italy, the Netherlands, Poland, Slovakia and Spain.

- Increased consumption (and thus sales) of goods due to the lower price, which is stronger than might have been expected because they find a price elasticity of demand (PED) ranging between -2.5 and -8 for the goods modelled.
- Reduced costs of supply, because many purchases that are made from "brick and mortar" retailers today would instead be made online. The cost of producing the goods is unchanged, but the cost of making the sale online is less than the cost of making the equivalent sale offline, and is sufficient to explain the predicted increase in producer surplus.[28]

The work is well done, and the results are reasonable. It is important to note, however, that Duch-Brown and Martens (2016) were modelling the effects if cross-border transaction costs for all goods were the same as for domestic sales, with the exception of an allowance for the cost of shipping the goods. Transaction costs for cross-border sales of goods are higher than domestic transaction costs for many reasons, of which geo-blocking is only one. **If enacted, the Commission's geo-blocking legislative proposals alone would not achieve all of the gains that the study has identified.** If one however considers the collective impact of the full range of Digital Single Market legislative proposals, including not only the proposed geo-blocking measures but also the proposed simplification of VAT, increased harmonisation of consumer protection rules, simplification of collection of rights under copyright, and reduction in cross-border parcel delivery prices, the combined impact might approach the levels identified in the study.

It is also important to bear in mind that while Duch-Brown and Martens (2016) were modelling the impact of on end of geo-blocking for all goods, this is not the precise scope of the Commission's proposed Regulation.

- The Regulation would not, for instance, apply to goods subject to copyright (notably DVDs and CDs).
- Conversely, the Regulation would cover services to the extent that they do not entail copyrighted content; however, Duch-Brown and Martens model only goods but not services.
- Finally, Duch-Brown and Martens were modelling fully effective cross-border trade, but that depends on multiple components of the DSM, and possibly other measures that have not been considered as part of the DSM.

In other words, the Duch-Brown and Martens analysis provides a reasonable estimate of the likely effects of eliminating geo-blocking, but their quantitative results do not correspond exactly to the expected gain from the Commission's legislative proposal.

[28] Unpublished correspondence with the authors.

3. GEO-BLOCKING IN COPYRIGHTED DIGITAL CONTENT SERVICES

KEY FINDINGS

- Demand for copyrighted digital content services is fast growing. The number of individuals who ordered such content grew by 45.5% between 2011 and 2014.
- 57% of the online rights licensed under all the licensing agreements submitted by content providers were granted for the territory of one Member State only.
- Geo-blocking is a common practise in the provision of copyrighted digital goods. 70% of digital content providers responded that they implement geo-blocking measures.
- Surveys indicate that one of the main reasons for which individuals demand cross-border access to digital content is the fact that the content is not available in their country of residence.
- In predicting the effects of a prohibition on the geo-blocking of copyrighted digital content, it is necessary to consider the impact on different EU population segments, including intra-EU migrants, those who have proficiency in a foreign language or are studying a foreign language.
- We develop a framework for doing so in this chapter, and apply it to audiovisual content, music, e-books and e-publishing, and games in subsequent chapters.

In this chapter, we discuss cross-border e-commerce and geo-blocking of copyrighted content in the EU in general terms, and then proceed to consider the accessibility of this content in greater detail. We take these issues up in greater detail for audiovisual services in Chapter 4, and for music, e-books and games in Chapter 5.

3.1. Cross-border e-commerce and geo-blocking of copyrighted content in the EU

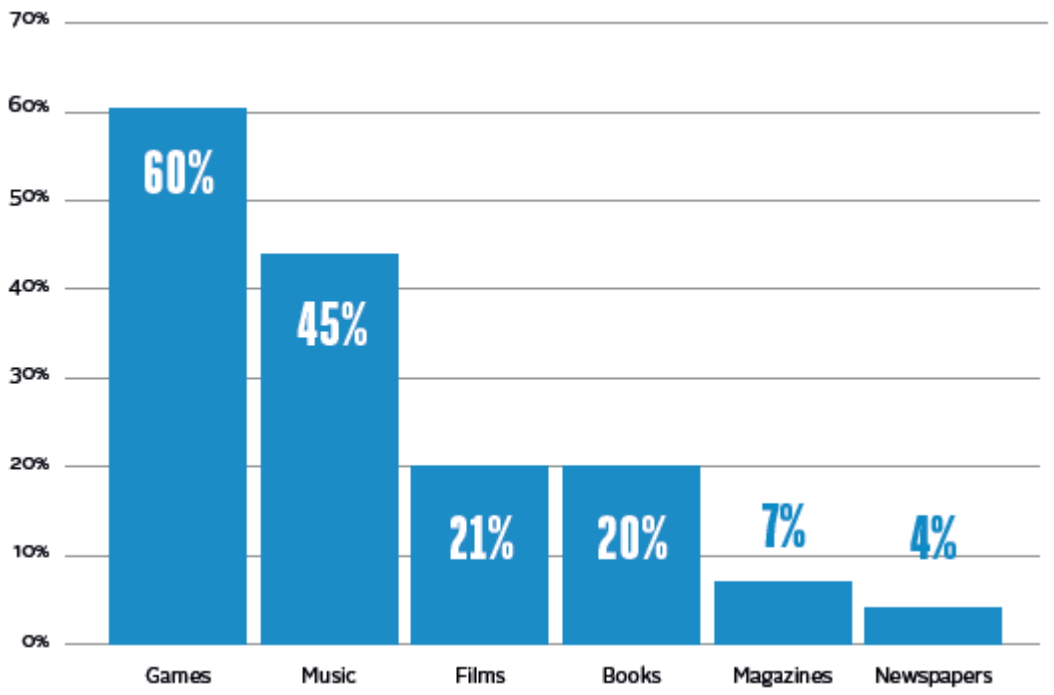
The Commission's regulatory proposal that prohibits unjustified geo-blocking excludes copyrighted digital content services.

Demand for digital content services is fast growing. The **number of individuals who ordered content or software** (films, music, books, magazines, e-learning material, computer software, video games) **that were delivered or upgraded online grew by 45.5% between 2011 and 2014**[29]. The growth in the number of individuals consuming digital online content is greater than the growth in the number of individuals that ordered physical goods online (23.5%) or services online (25% in services like telecommunications, insurance, financial services, holiday accommodation, travel arrangements, tickets for events).

Some forms of content are being digitised more rapidly than others. One estimate of the degree to which different forms of copyrighted content are delivered digitally appears in Figure 5.

[29] European Commission, Digital Agenda Scoreboard Key indicators. See also IFPI (2016), Global Music Report 2016: State of the Industry, page 17.

Figure 5. The degree to which copyrighted content is delivered digitally (revenue share, 2015).



Source: PWC and IFPI[30]

This is a complex area where vertical restraints (e.g. geographical restraints in distribution contracts) and territorial limitations of distribution and reproduction implemented via copyright interact with one another in complicated ways, and must presumably be addressed in a coordinated way.

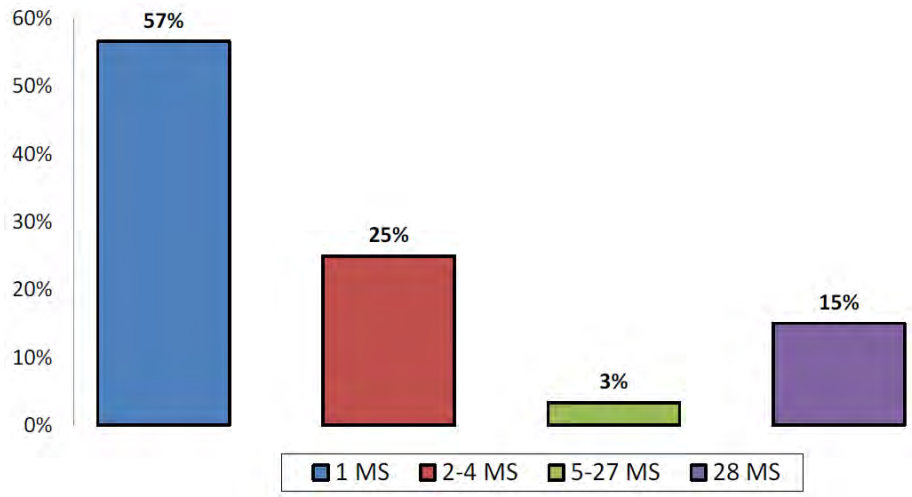
Copyright is a property right[31] that rewards creativity (of composers, writers, film directors, musicians, actors, etc.) and investment in creativity (by book and newspaper publishers, film and record producers, broadcasters etc.) by granting rights over the use of works (e.g. a novel, a film) and other protected subjects (e.g. records, broadcasts). These rights and their effective enforcement promote the formation of markets for creative content. In practice, they provide a framework within which right holders can negotiate licensing agreements with users and providers and obtain remuneration for such an authorised use. Providers of online services that want to offer copyright-protected content need to get a licence from the right holders for the territories in which they want to provide the services.

In the European market for online copyrighted contents, **rights are to large extent licensed on a national basis between right holders and digital content providers**. As the e-commerce sector inquiry reveals, right holders build their business models on licensing rights on a national basis. 57% of the online rights licensed under all the licensing agreements submitted by content providers, were granted for the territory of one Member State only as shown in Figure 6. This licensing practice allows them to extract the highest possible value from the rights in terms of revenues.

[30] IFPI (2016), Global Music Report 2016: State of the Industry, page 12.

[31] Article 17(2), Charter of Fundamental Rights of the European Union.

Figure 6: Proportion of agreements including rights licensed for a certain territorial scope - All agreements submitted by digital content providers



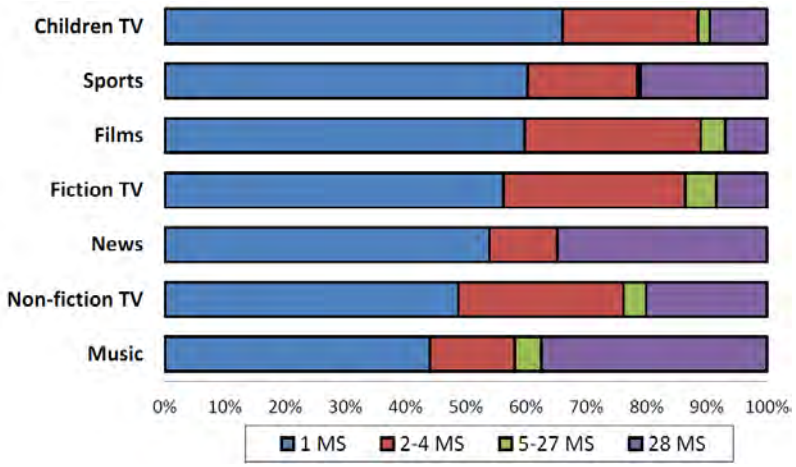
Source: SWD(2016) 312 final.

Based on responses by digital content providers (presented in vide licenses on a pan-EU basis.

Figure 7), licensing of rights on a national basis is particularly prevalent in relation to content types that may contain premium products, such as children TV (66%), sports (60%), films (60%) and fiction TV (56%). Music and news, instead, are the content categories for which rights are most often licensed on a pan-EU basis (38 and 35%, respectively), followed by sports (21%) and non-fiction TV (20%).

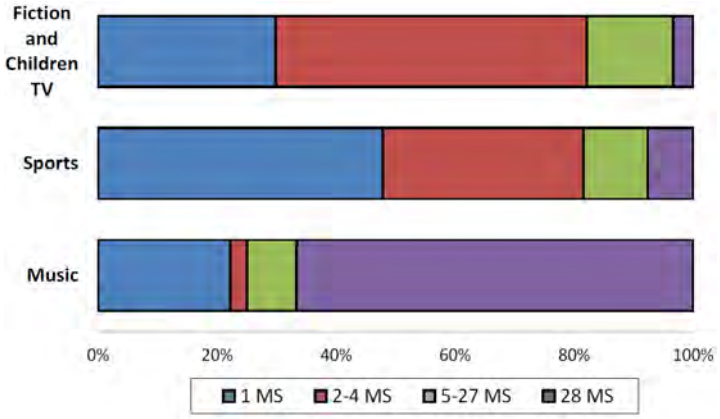
In the corresponding responses by rights holders, while similar patterns are observed, there is a tendency to report fewer territorial restrictions towards licensing in 1 Member State only. 67% of the rights licensed by music rights holders cover 28 Member States and only 22% cover one Member State. 30% of the licensing agreements submitted by fiction and childrens' TV rights holders cover the territory of one Member State only and only 3% of the agreements have a pan-EU scope. The majority of the licensing agreements submitted by sports rights holders (48%) cover the territory of only one Member State, by contrast, and few of these agreements (8%) provide licenses on a pan-EU basis.

Figure 7: Proportion of agreements including rights licensed for a certain territorial scope – Responses by digital content providers



Source: SWD(2016) 312 final.

Figure 8: Proportion of agreements including rights licensed for a certain territorial scope – Responses by right holders



Source: SWD(2016) 312 final.

The most frequently reported **reason** (67% of digital content providers consider it as a very important factor) **for including territorial restrictions** on the provision digital content is the **cost of purchasing content** for territories in which the digital content provider is not yet active. In particular, smaller operators or operators in smaller Member States indicate that they have limited their activities to one or a few Member States, since it would be too expensive to acquire the rights for other territories. Therefore, they are prevented from offering subscribers the possibility to access and use their services from other Member States.

Another widely important reported reason for imposing territorial restrictions is that the **rights for the content are not available for licensing for (some or all) of the territories across Member States**. Respondents state that some right holders make the licensing of their content conditional upon the fact that the digital content provider undertakes to apply geo-blocking, or that they would need to pay higher fees in order to make some content available without geo-blocking. Respondents also explain that the business models of some right holders do not allow the digital content providers to offer portability of their services.

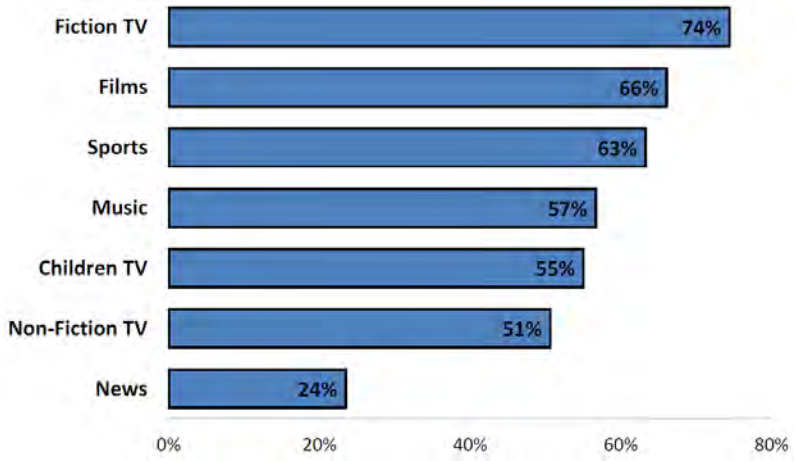
70% of digital content providers responded that they implement geo-blocking measures[32]. However, the adoption of geo-blocking measures seems to widely vary across Member States. While, in Estonia (33%)[33] and in Italy (46%) is not a so common strategy, countries like Spain (67%), the Netherlands (67%), France (81%), the UK (83%), Denmark (86 %) and the Czech Republic (87 %) use it extensively.

Geo-blocking can be imposed by licensing agreements. **74% of all licensing agreements with suppliers of television fiction submitted by digital content providers require them to geo-block**. Licensing agreements for TV drama and TV series, and films and sports events, include requirements to geo-block more often than licensing agreements for other digital content categories, as illustrated in Figure 9.

[32] 72% of the respondents indicated that they implement at least one technical geo-blocking measure to restrict cross-border access and portability.

[33] Percentage of respondents using geo-blocking measures.

Figure 9: Proportion of agreements requiring providers to geo-block by category – Average for all respondents in EU 28



Source: SWD(2016) 312 final.

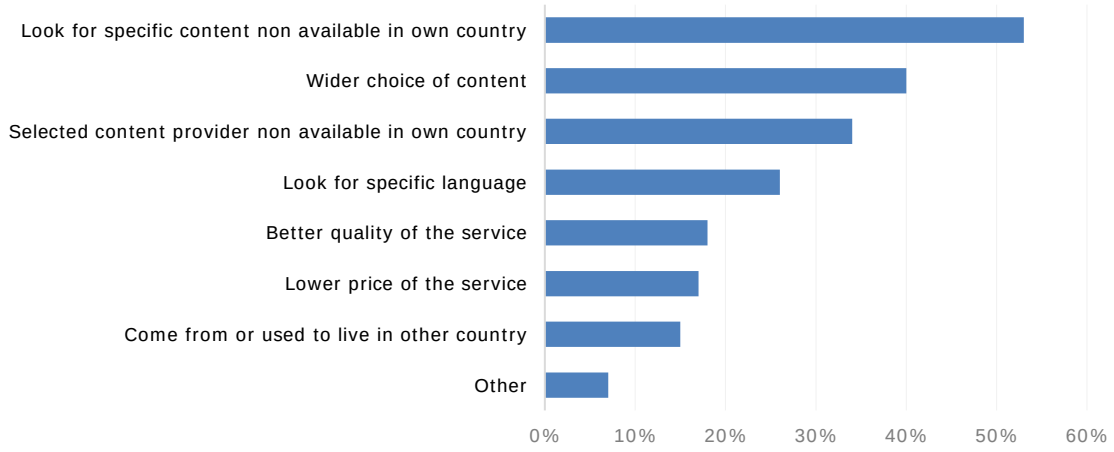
3.2. Cross-border accessibility

The Flash Eurobarometer (2016)[34] explored the current experiences among European citizens to access different types of content cross-border. Among internet users, **only 8% of European surveyed citizens have tried over the past year to access online content services meant for users in another Member State**. In terms of content searched, audiovisual and music are the most common. As might be expected, this share is higher among younger generations (17%) compared to other segments of the population (10% among 25-39, 6% among 40-54, only 4% among 50+).

For more than half (53%) of the respondents who had tried to access digital content meant for users in other Member States, the **unavailability of the searched content in their Member State of residence** was a **motivating factor**, followed by the **wider choice** of **content** (for 40%). 34% of respondents answered that the provider they wanted to access is not available in their country, while 26% were looking for content in a specific language. Consideration about the quality and price of the service were identified by relatively fewer consumers, respectively by 18% and 17%. Finally, 15% of the respondents explained that they come from or used to live in the other Member State.

[34] Eurobarometer 411 (2015), "Cross-Border Access to Online Content", Flash Eurobarometer.

Figure 10: Main reasons for trying to access online content cross-border, EU28



Source: Bruegel elaboration based on Eurobarometer 411 (2015),

56% of users claimed to have experienced problems when they tried to use an online service generally meant for users in another Member State. More specifically, 27% declared that they only had limited access to the content and could not access or download what they wanted, which are clearly classifiable as geo-blocking issues. Respondents who tried to access audiovisual content are the most likely to have experienced problems. These findings suggest that geo-blocking is a real obstacle in accessing cross-border content.

3.3. The potential demand for cross-border access to digital content

How great is the demand for cross-border access to digital content?

It is clear that there are different segments of the European population that will have differing levels of interest in various forms of digital content. In order to analyse demand, it is necessary to proceed in steps:

- Begin with a taxonomy (i.e. a categorisation) of different population segments within the EU that are likely to have varying degrees of demand, and estimate the number of individuals and households in each group;
- Estimate the number of individuals (or, where relevant, the number of households) in each group that would be likely to wish to procure the service in question;
- Estimate the distribution of the willingness to pay (WTP) of those who would wish to procure the service, establishing lower and upper bounds;
- Multiply the number likely to acquire the service in each population category by their respective WTP to estimate total revenue; and
- Correct to reflect that some are already receiving the service in some other way (for instance, by “grey market” legal satellite services in the case of audiovisual services) and to reflect the fact that the service may not be realistically available to all those who desire it.

We have attempted to use reliable quantitative data wherever it is available; however, in many cases, it was necessary to make estimates and extrapolations due to lack of data.

We are using a consistent taxonomy of EU population segments for all services; however, the number of individuals or households with demand as well as the corresponding WTP vary from one digital service to the next. For that reason, we present the population categories here as prelude to the detailed analysis that appears in Chapters 4 and 5.

We follow the general line taken in the Plum (2012) study that was undertaken on behalf of the European Commission, and that also provides the basis for the Simonelli (2016) study on behalf of the European Parliament.

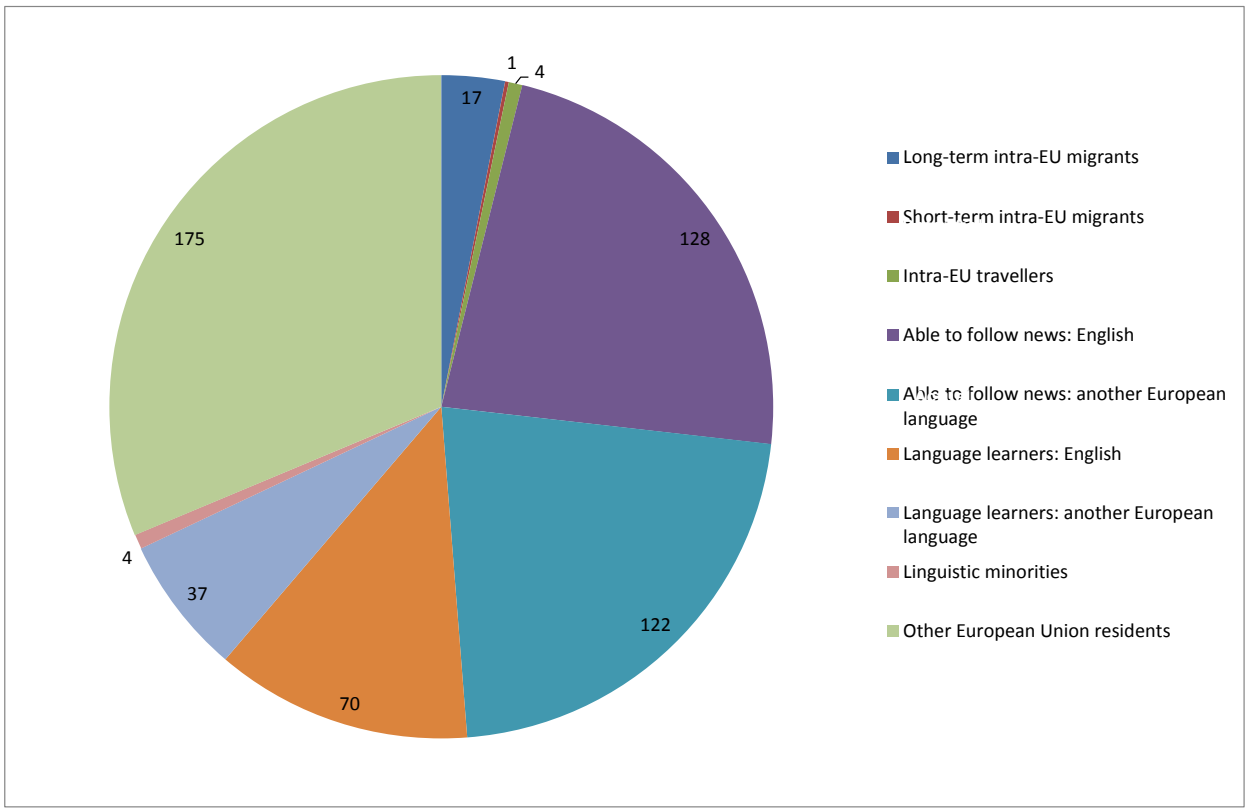
We have reviewed and updated all of their estimates, using more current data wherever available. We have also further refined their categories where appropriate.

Plum (2012) begins with a high level breakdown between (1) those who are away from their country of origin, and (2) those who have foreign language skills or interest. More specifically, we have used the following taxonomy:

- Away from their country of origin
  - Long-term intra-EU migrants
  - Short-term intra-EU migrants
  - Intra-EU travellers
- Foreign language skills or interest
  - Language proficiency
    - Able to follow news: English
    - Able to follow news: another European language
  - Language learners
    - Language learners: English
    - Language learners: another European language
  - Linguistic minorities
- Other European Union residents

Our estimate of the number of individuals in each of the detailed groups appears in Figure 11. Our basis of estimation and the source documents used for each of these estimates appear in Annex I. Some of these categories may in reality overlap (for instance, a long-term migrant may also know a third EU language), but there is no reliable basis on which to estimate these overlaps.

Figure 11: Population segments in the EU that may have interest in cross-border access to digital content (millions of individuals).



Source: Bruegel estimates (see Table 2)

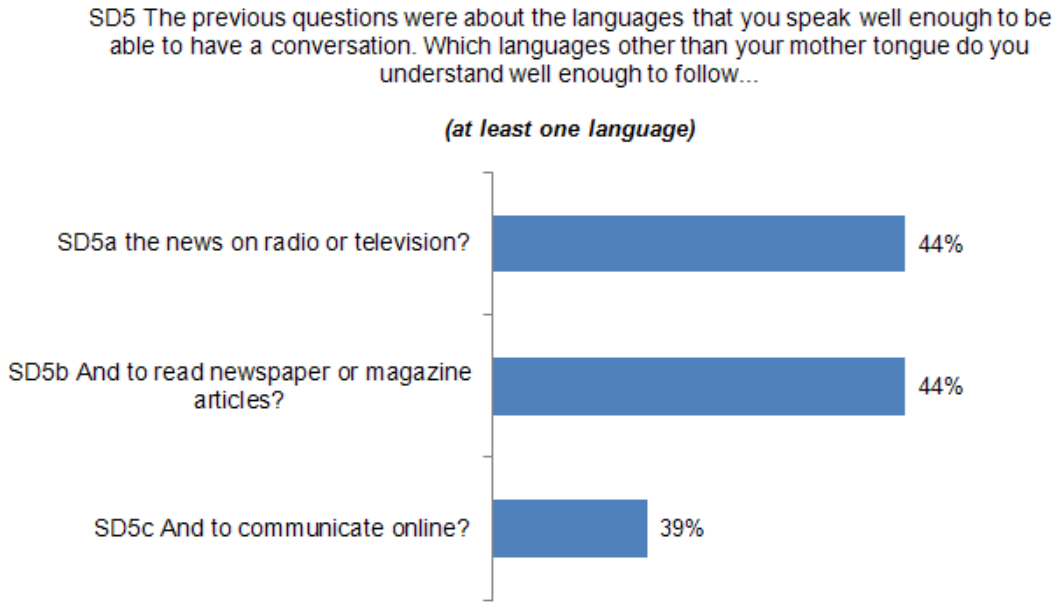
The best understood category is *long-term intra-EU migrants*. The number of migrants is available from Eurostat, and their WTP for audiovisual content was established through survey work conducted as part of the Plum (2012) study. It is clear that they will tend to have interest in news and films from their country of origin, and will tend to have the language skills necessary to appreciate them without translation. An important finding from Plum (2012), however, is that their level of interest in content from their country of origin declines over time – the longer they have lived in a different EU Member State, the less their WTP for cross-border content.

It is clear that *short-term intra-EU migrants* and *intra-EU travellers* will also tend to have interest in information from their country of origin; however, there is uncertainty as to the number of individuals. We have followed the estimates in Plum (2012). One would moreover expect that travellers would have less interest in content to the extent that they are only away for a short period of time.

Among those who are not away from their country of origin, language skills play an important role; however, it is a complex role, and it varies among different digital media. For audiovisual media, works that are actively targeted toward a language group are typically adapted using one of three techniques: dubbing, voice-over, or sub-titling (see Chapter 4). For audiovisual works that are not translated, however, one needs to have a sufficient command of the language. One cannot appreciate an (untranslated) e-book unless one knows the language. One can appreciate music, however, even if one does not understand the words, if indeed words are present.

Our approach here differs somewhat from that of Plum (2012) in that we estimate the fraction of the European population that could benefit from cross-border television based not on the fraction of individuals who claim (in EuroBarometer surveys) that they are able to hold a conversation in the language, but rather on those who claim that they are able to follow the news on television or radio. Conducting a conversation requires *active* language ability; however, one requires only *passive* language ability in order to view television, or to read an e-book (i.e. one does not need to speak). Survey results (see Figure 12) suggest that ability to follow the news on television is roughly equivalent to the ability to read a newspaper or magazine (e-book).

Figure 12. Passive knowledge of a foreign language (2012).



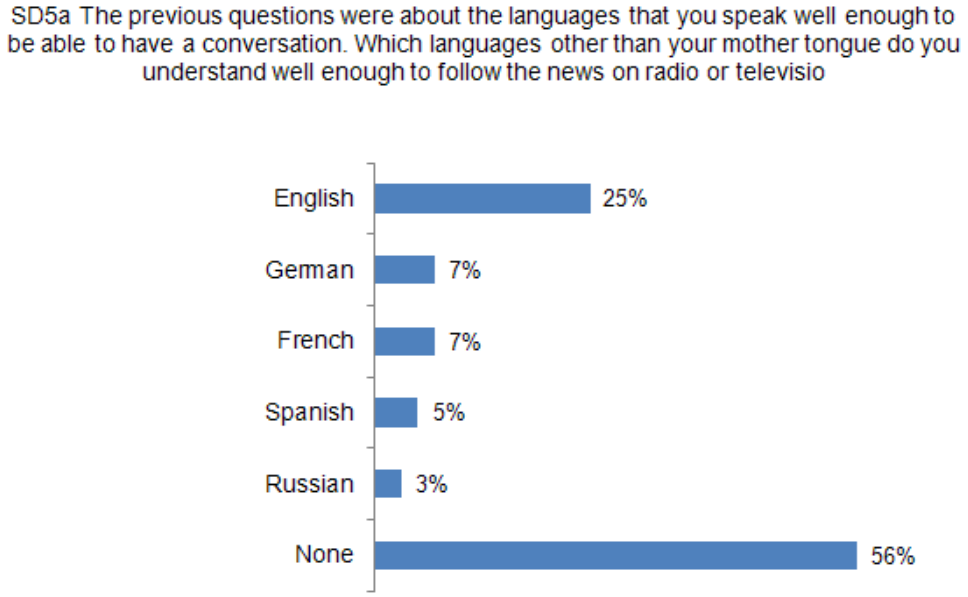
Source: EuroBarometer 386 (2012), page 28.

Among those who claim to be able to follow the news on radio or television, English is far more common than any other language (see Figure 13).[35] In fact, it is more common than all other languages combined.

In evaluating demand for cross-border services, we have chosen to estimate proficiency or study in the English language separately from ability in other European languages. English content comes from several EU countries, but content from Ireland or Malta is minimal in comparison to that from the UK. In light of the vote in the UK's "Brexit" referendum of 23 June 2016, the status of the UK at such time as a new geo-blocking legislative measure might come into force is unknown and unknowable today; consequently, one does not know today whether geo-blocking measures are desirable or enforceable as they relate to UK digital content. Given however that English is the most widespread language in the EU, and given the importance of these issues, we have separately broken out English language estimates in our analysis in order to assist the MEPs in reaching their own conclusions.

[35] The numbers sum to 103% because some Europeans speak more than two languages.

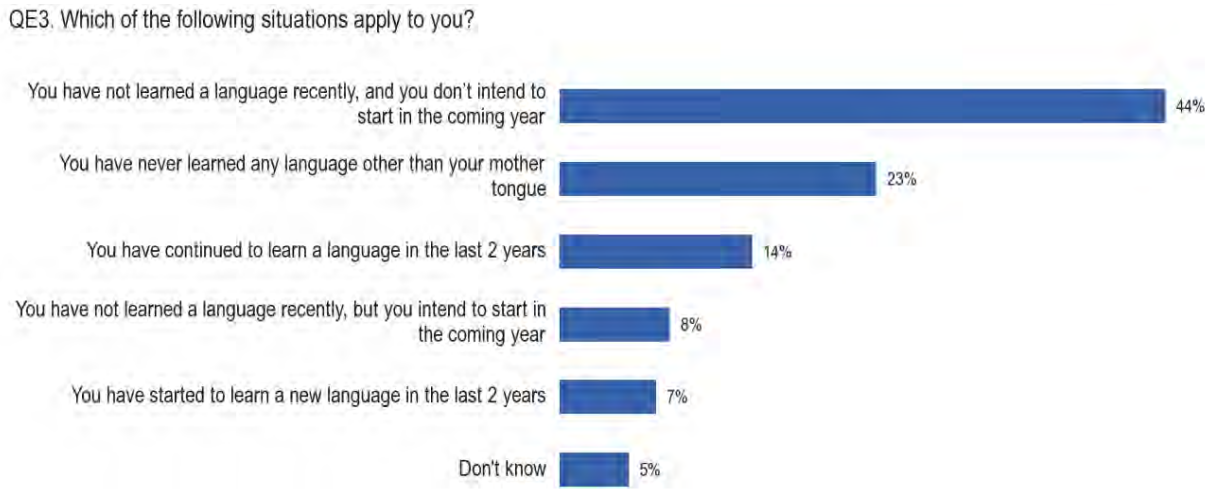
Figure 13. Languages which are understood well enough to follow the news (2012).



Source: EuroBarometer 386 (2012), page 29.

For language learners, we assumed that those who either have learned a new language in the past two years, or who have continued to learn a language in the past two years (see Figure 14) will tend to have a greater degree of interest in viewing or reading content in that language than does the general public; however, following Plum (2012), we believe that WTP is considerably less than for long-term intra-EU migrants.

Figure 14. Survey results: Europeans who are studying a foreign language (2012).



Source: EuroBarometer 386 (2012), page 55.

Studying the economic impact of the potential extension of the proposed geo-blocking Regulation so as to accommodate copyrighted digital content services requires a **service-by-service analysis** given that different business models are in place in each of the

markets. In the following chapters, we analyse consumer WTP for cross-border content for various forms of digital content, following in each case the sequence of steps sketched out at the beginning of this section. The implications for audiovisual content (see Chapter 4) are quite distinct from those for music (see Section 5.1), e-books (see Section 5.2), and games (see Section 5.3).

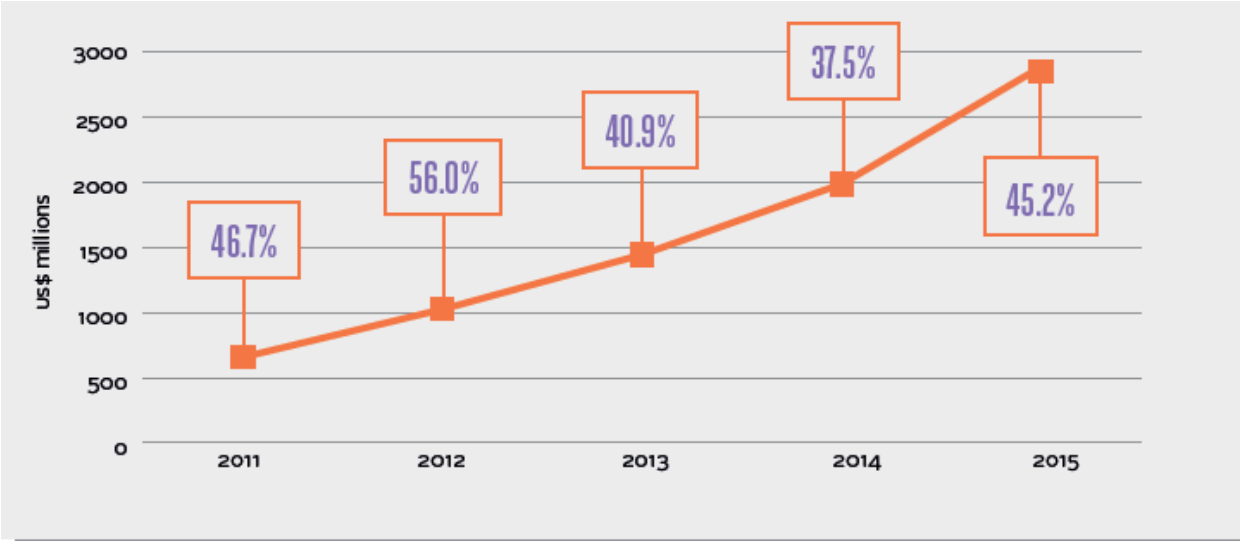
4. THE AUDIOVISUAL SECTOR

KEY FINDINGS

- The means by which consumers receive audiovisual content is evolving rapidly, with rapid growth in volume and revenues associated with digital content under both subscription and transactional payment models.
- Previous studies have demonstrated that long-term intra-EU migrants have substantial interest in content from their country of origin, and also substantial willingness to pay (WTP) for it.
- Short-term intra-EU migrants, travellers, linguistic minorities, and those who are studying a language or already have proficiency all are likely to have interest and willingness to pay for cross-border access audiovisual content.
- We have identified an aggregate EU-wide opportunity of € 378 million per annum, with a lower bound of € 189 million per annum and an upper bound of € 945 million per annum, for the elimination of geo-blocking of audiovisual content. In each case, this represents the incremental amount that consumers are willing to spend; however, the degree to which this can realised in practice is uncertain.
- An additional potential benefit of a prohibition on the geo-blocking of audiovisual content is that widespread lawful availability might reduce incentives for piracy of content – unfulfilled demand tends to encourage piracy.
- In the audiovisual sector, exclusive territorial licenses for only one Member State are very common. Together with the widespread use of release windows, this leads to a portioning not only in terms of geography, but also of time.
- There is a natural temptation to view this partitioning of the European audiovisual market as harmful, and there is indeed no question that it runs counter to the logic of the Single Market that we take for granted in most contexts; however, many would argue that this market partitioning in terms of both geography and time exists for a number of valid reasons, and generates benefits for European consumers, not just costs.
- There are credible claims that a prohibition on geo-blocking of online audiovisual content might raise concerns about the creation of new content and how it would be financed. There is a risk that less content would be produced, thus reducing consumer choice and consumer welfare.
- Concerns have also been expressed as to whether cross-border subscription-based services could be profitable.
- One could consider attempting to mitigate these concerns by limiting any prohibition on geo-blocking either to works where sufficient time had elapsed from the date of first theatrical release to ensure that nearly all of the revenue potential was already realised, and/or by limiting the prohibition to transactional services (TVoD).

The manner in which people consume audiovisual content has radically changed over the past few years. As a main effect of technological innovation and digitisation, consumers are able to access audiovisual works at almost any time and from anywhere. If we look at consumer spending, internet-based services are growing much faster than more “traditional” media. This is clearly leading to a radical transformation of the competitive dynamics within the sector. For example, the International Video Federation (2014) predicts that online technologies will entirely supplant DVD and Blu-ray by 2020.

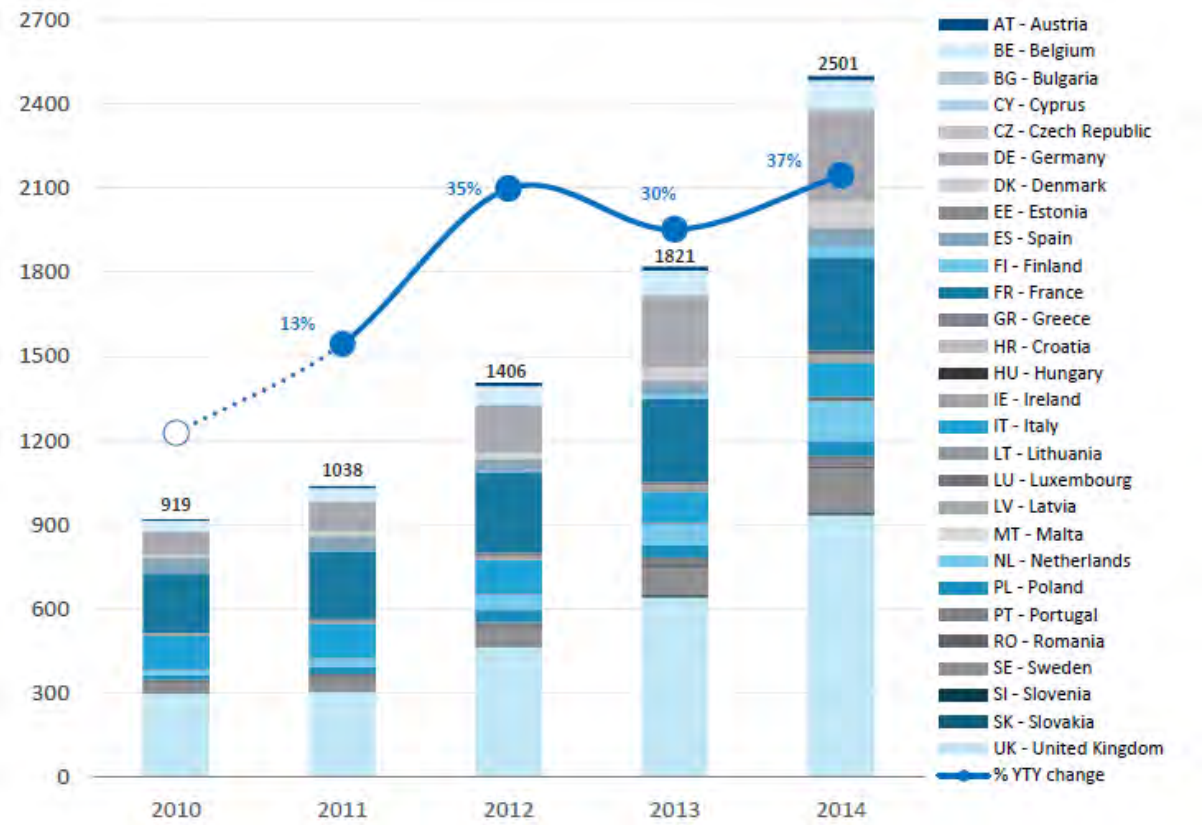
Figure 15. The growth of streaming of audiovisual content (USD mn)



Source: PWC and IFPI[36] (2016), page 17.

On-demand online digital audiovisual services have shown dramatic but uneven growth in revenues in recent years (see Figure 16).

Figure 16. Total on-demand consumer revenues by year and country (€ mn) (2010-2014)



Source: IHS[37]

[36] IFPI (2016), Global Music Report 2016: State of the Industry, page 12.

[37] As reported in Laura Croce and Christian Grece (2015), Trends in video-on-demand revenues".

4.1. Potential benefits

In this section, we will employ the methodology of Section 3.3 in order to estimate unfulfilled cross-border demand for audiovisual services.

In Section 3.3, we estimated the number of EU individuals who, for one reason or another, might have interest in cross-border access to any form of digital content. The basis for these estimates appears in Table 2 in the Annex to this report.

In this section, we carry through analysis that is specifically geared to audiovisual content. Specifically we

- Estimate the number of households in each Section 3.3 group that would be likely to wish to procure audiovisual services cross-border;
- Estimate the distribution of the willingness to pay (WTP) of those who would wish to procure audiovisual services cross-border, establishing lower and upper bounds;
- Multiply the number likely to acquire the service in each population category by their respective WTP to estimate total revenue; and
- Correct to reflect that some are already receiving the service in some other way (for instance, by "grey market" legal satellite services) and to reflect the fact that the service may not be realistically available to all those who desire it (for instance, due to lack of suitable broadband access).

Our calculations appear in Table 3 in the Annex to this report.

For *Long-term intra-EU migrants*, our estimate is based on solid quantitative survey data developed by Plum Consulting for the 2012 study for the European Commission. They found that 34% of migrants wanted cross-border access, but 7% already had it; moreover, some of these (we assume 10%) wanted it but would not be able to obtain it.

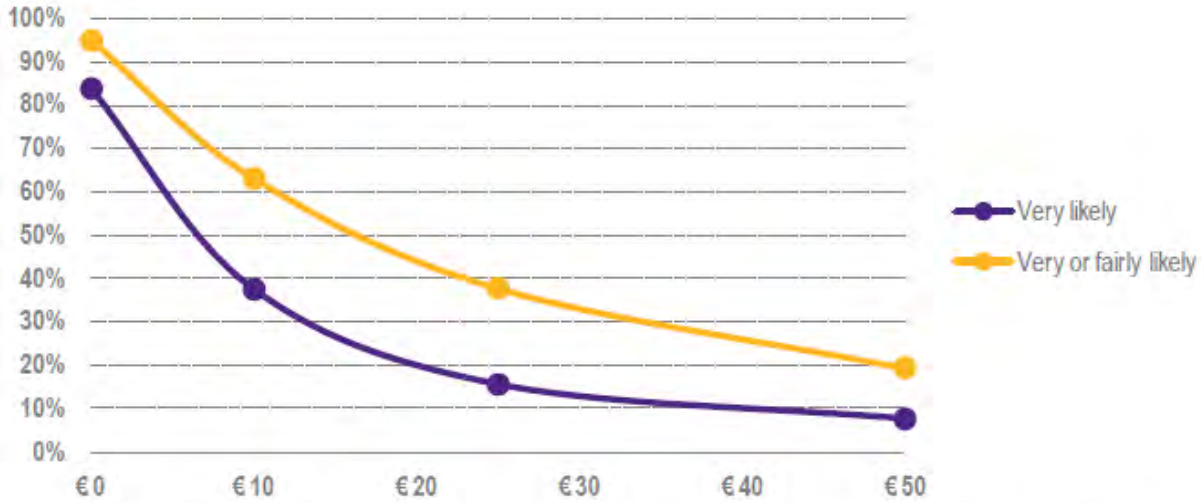
Multiplying the result by the number of long term intra-EU migrants in the EU (17,2 million per Eurostat),[38] we find that the unmet demand corresponds to 2,9 million individuals or 1,2 million households.[39] We assume that subscription services are normally ordered for the household, not for the individual.

Plum (2012) primarily studied interest in subscription-based SVoD services. Among long-term intra-EU migrants who wanted cross-border access, they found *Willingness to Pay (WTP)* of between €10 and €50 per month, but declining with the number of years that the migrant has lived in their new country of residence. We take €20 per month as a reasonable overall average.

[38] See http://ec.europa.eu/eurostat/statistics-explained/index.php/EU_citizenship_-_statistics_on_cross-border_activities, viewed 29 January 2017. These 2012 figures appear to be the most recent available.

[39] According to EU-SILC, the average size of private households in the EU-28 was 2.4 persons in 2013.

Figure 17. Willingness to pay a monthly subscription for channels and programmes from other EU countries (€).



Note: The price points for respondents in Poland, Sweden and the UK were expressed in the local currency. Owing to rounding of the converted values the equivalent Euro price points may differ slightly from those charted.

Base: 414 European migrants resident in France, Poland, Spain, Sweden and UK who have ever watched video from other countries or interested in doing so

Source: TNS online survey, September 2011

Source: Plum (2012), page 9.

Multiplying by the lowest, most likely, and highest expenditure per month yields revenue per annum of € 146 million, € 292 million, and € 731 million, respectively.

Our estimates of the number of interested individuals and of willingness to pay for other population segments are estimated in comparison to these known values, taking into account the qualitative observations made in Plum (2012). These rough estimates appear in *italic type* in Table 3 in the Annex.

We assume that Short-term intra-EU migrants and Intra-EU travellers have greater than average interest in cross-border audiovisual content, but less so than long-term migrants. For travellers, the knowledge that they will soon be home, and possibly have other things that occupy their time while travelling, would tend to mitigate the numbers who would procure content, and the amount that they are willing to pay. The transaction costs associated with finding content will also tend to play a greater role for these groups than for long-term migrants.

For those who are able to follow the news in a foreign language, we assume greater interest than for the public at large, but much less than that of long-term migrants. The same is true for those learning a language. In both cases, we assume that interest and WTP are roughly the same irrespective of whether the language is English or something else – the distinction is useful mainly in light of the large numbers of individuals involved, and the observation that the European Institutions may need to take a different view of cross-border access to English language content in light of the evolving relationship with the UK (as noted in Section 3.3).

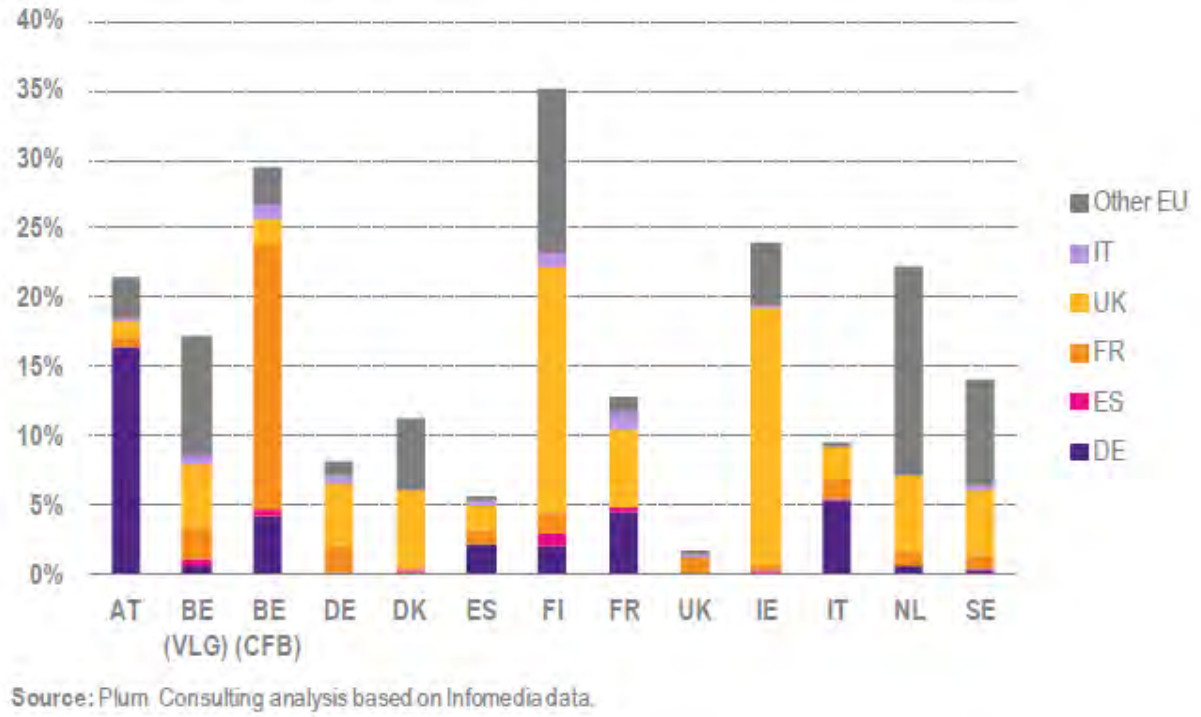
These language skills are in general relevant only to the passive sales that are not already taking place. Where a distributor contemplates active sales, they will generally arrange for

translation of the audiovisual content if necessary.[40] As Plum (2012) explains,[41] translation takes one of three forms, with differences in national preferences:

- "Dubbing - the replacement of the original soundtrack with a soundtrack in another language spoken by voice artists.
- Subtitling – the insertion of a translation as on-screen text, while retaining the original soundtrack.
- Voice-over – this involves reducing the sound level of the language on the original work, and superposing another language typically spoken by one, or at most two, voices. The original language though quiet remains audible."

It is important to bear in mind that a portion of the demand for cross-border audiovisual content is already being satisfied in this way by existing broadcast media (see Figure 18), and also in VoD works designed for multi-national consumption.[42]

Figure 18. Proportion of television hours that are non-national EU for a sample of channels (2012).



Source: Plum (2012), page 62.

We treat *linguistic minorities* (for instance, residents of Finland who speak Swedish) as having demand characteristics with some similarities to those of short-term residents, and some to those of travellers. The country whose language they speak is not really their country of origin. As Plum (2012) notes, the media preferences of Swedish speakers in Finland do not appear to be very different from those of other Finns.

We treat *Other European Union residents* as having low interest, but not zero interest.

Adding all of this together, we come up with an aggregate EU-wide opportunity of € 378 million per annum, with a lower bound of € 189 million per annum and an upper bound of

40 No translation is needed to show German productions in Austria, or French productions in French-speaking regions of Belgium.

41 Page 62.

42 The demand is also addressed by means of legal "grey market" satellite services (where a migrant purchases the subscription in his country of origin but uses it in his country of residence, and in various other ways.

€ 945 million per annum. In each case, this represents the incremental amount that consumers are willing to spend. The degree to which this can realised in practice is uncertain.

Before closing, we note that an additional potential benefit is that widespread lawful availability might also reduce incentives for piracy of content. Unfulfilled demand tends to encourage piracy (see Box 1).

Box 1: Dynamics of illegal consumption of copyright protected works – Evidence from the UK

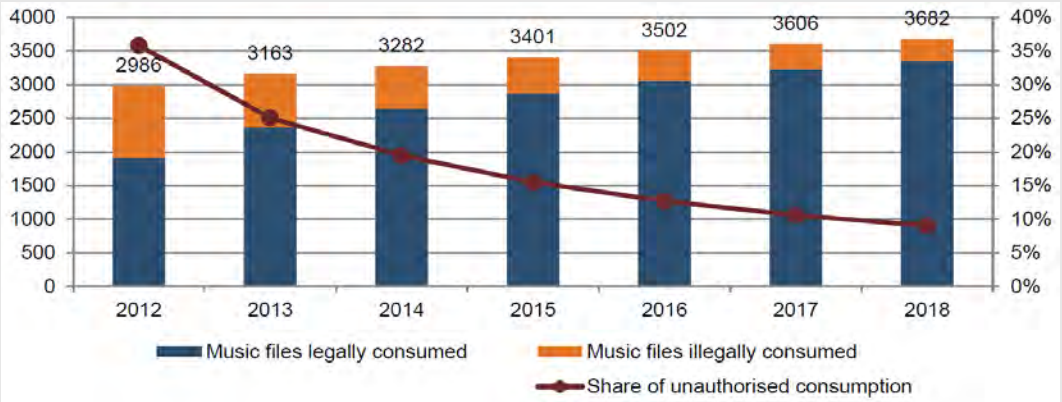
Piracy of copyright protected works is widespread on the internet. The forms are various and continuously changing, ranging from peer-to-peer file sharing to posting copyrighted material on content sharing websites. Madiega (2016) reports that 42% of Europeans consider it as acceptable to download or access copyright-protected content illegally when it is for personal use and 22% consider this is acceptable when there is no legal alternative in their country.

A recent report prepared by IDATE Consulting (2015) for OFCOM contains interesting estimates on the recent consumption trends of both lawful and unauthorized content.

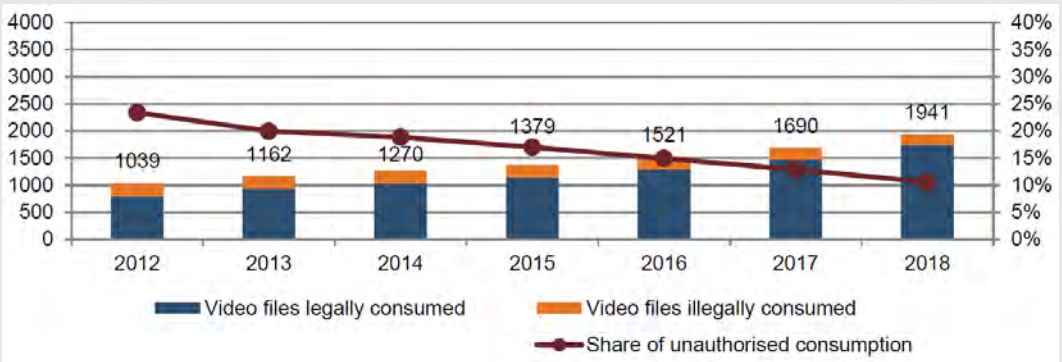
Figure 19 provides an overview of such estimates for the main types of copyright protected works. Even if data are limited to UK market, they may provide interesting insights, given the size of the UK market and relatively wide availability of contents (partially facilitated by the language).

Figure 19: Evolution of content consumption of lawful and unauthorized content in the UK, by type of content

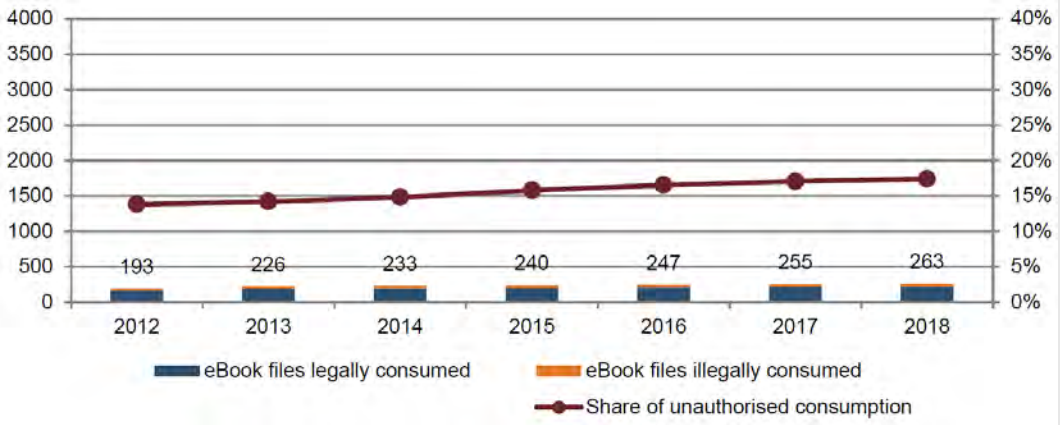
a. Volume of music files consumption (million units; %)



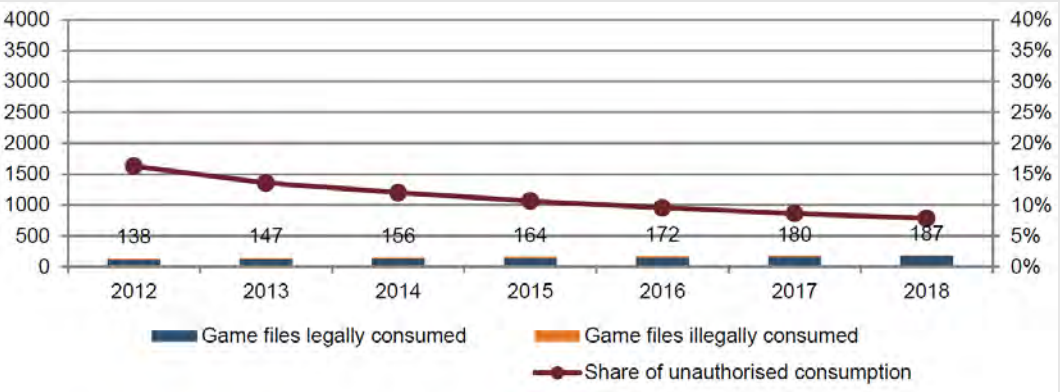
b. Volume of video files consumption (million units; %)



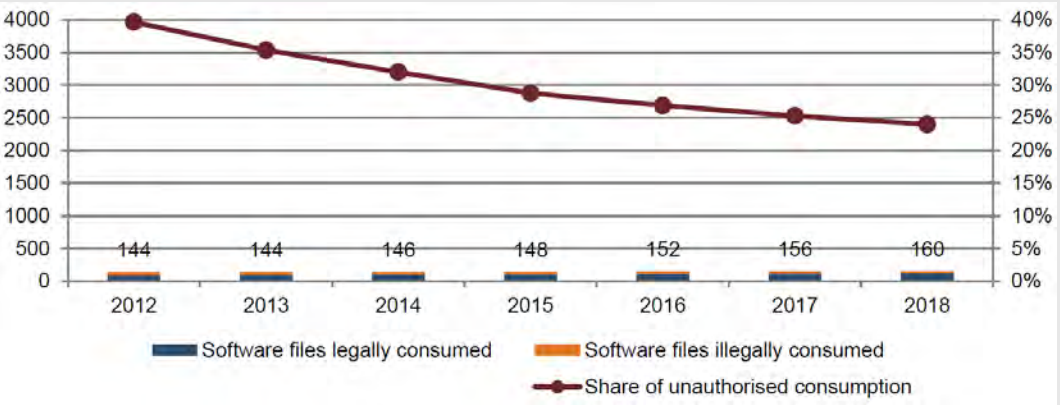
c. Volume of eBook files consumption (million units; %)



d. Volume of game files consumption (million units; %)



e. Volume of software files consumption (million units; %)



Note: Forecasts for 2015-2018 period.

Source: IDATE Consulting (2015), "Online Content Study: Changes in the distribution, discovery and consumption of lawful and unauthorised online content".

Given the increasing attractiveness of free and/or low-cost lawful services (e.g. Spotify, iTunes and YouTube providing access to wide content catalogues), the unauthorised consumption of online music is estimated to decrease significantly (falling from 35% in 2012 to less than 10% by 2018). As regards online video services, the proportion of illegally consumed video decreased and a further reduction is foreseen. Also in this segment low-cost, subscription video-on-demand (VoD) services are becoming increasingly popular and are thought to have partially channelled illegal uses to lawful consumption. However, these services are generally less attractive than music content ones because of limited catalogues, which may explain why in absolute terms volumes are expected to remain broadly constant in the next years. In contrast with these two

segments, eBooks represent the only content type where piracy is expected to increase over the next three years. According to IDATE, the main reason for this is the limited appeal of the legitimate e-book service offer, in terms of both availability and prices. Level of video game piracy, instead, is relatively low level, and is expected to reduce further in the future. Piracy is still at a high level for software, essentially on the PC, but will decline over time due to the growing popularity of the new devices (for which piracy is more complicated, due to the closed nature of operating systems and app-stores).

Notwithstanding the fact that the success of free and low-cost online subscription models has certainly boosted the lawful consumption of copyrighted works, the unavailability of content can lead users to employ illegal solutions to find the same content. Even if it is empirically difficult to establish a causal link between piracy and geo-blocking (in particular to quantify the extent to which the unavailability of a content in own country acts as an incentive for piracy), **antipiracy considerations should be taken into account in the policy debate**.

4.2. Potential risks and costs of a prohibition on geo-blocking

Firms in the content industry has consistently expressed concerns to the effect that the current system, which reflects not only territoriality but also *windowing* in the time dimension, is essential in order to properly fund the creation of audiovisual content.

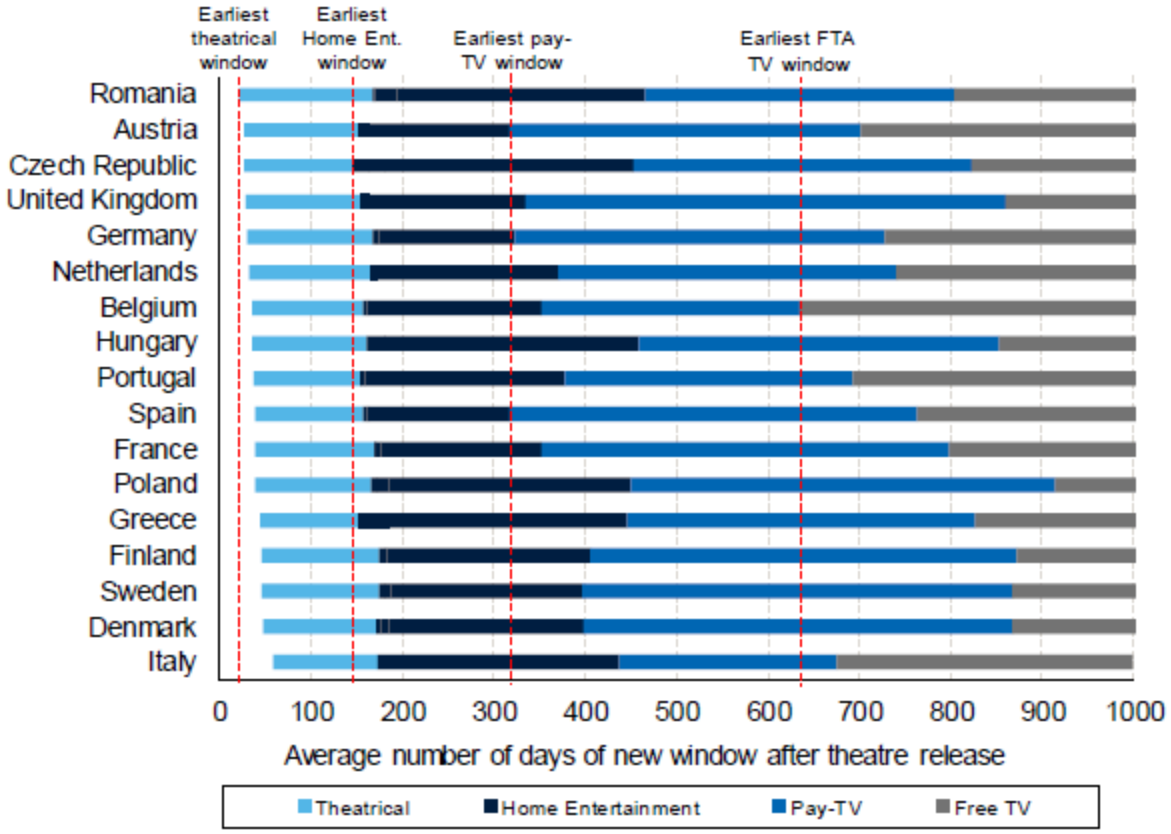
The literature tends to support this view, not only in studies prepared for the industry, but also in presumably impartial studies prepared for the Commission.

It is necessary at the outset to explain *windows*. A 2014 study by Charles River Associates (CRA) on behalf of the Commission explaining windows in this way: "Audiovisual works are typically distributed following a specific timeline release pattern based on different media windows. Consumers are then targeted by different versions of the work (according to their preferences and willingness to pay) as the audiovisual work is supplied at different prices through multiple formats over time. Sequential releases through different media and at different periods allow for inter-temporal price discrimination and this timeline aims at ensuring the maximisation of global revenue as well as a satisfactory return within each window. Audiovisual works are typically distributed in a sequence that starts with the window that generates the highest marginal revenue in the shortest period of time and ends with the window that creates the lowest one."[43]

Figure 20 depicts the number of days for various windows in several EU Member States, based on analysis done by Oxera for the industry. For cinema, the normal progression is from the theatrical window, to the home entertainment window, to the pay-TV window, to the Free-to-Air (FTA) window. The process is slightly different for films produced for television, but the concept is the same.

[43] CRA (2014), "Economic Analysis of the Territoriality of the Making Available Right in the EU", European Commission, pages 18-19.

Figure 20. Average time between windows, by EU Member State (days)



Source: Oxera (2016).[44]

The key claims raised by the industry are (1) creation of audiovisual works is expensive; (2) profitability is unpredictable because audiovisual works are *experience goods* whose value is only known once they have been experienced; (3) pre-financing consequently plays a critical role in enabling audiovisual works to be produced; (4) territoriality and windowing are crucial in generating the predictable returns that are needed in order to obtain pre-financing; and (5) changes that jeopardise the predictability of financial returns put pre-financing at risk, and in doing so also put the production of audiovisual works at risk.[45]

Multiple studies tend to support these concerns. For the claims (1) and (2), the high costs of production and uncertainty of returns of an experience good are widely acknowledged. In its Impact Assessment for the modernisation of the Copyright Directive, the Commission itself observes: "The production of films can be characterised by high sunk costs at an early stage of the lifecycle (i.e. development and production stages) and great uncertainty surrounding the financial return of the film project (as it is difficult to predict the success of

[44] Oxera (2016), "The impact of cross-border access to audiovisual content on EU consumers".

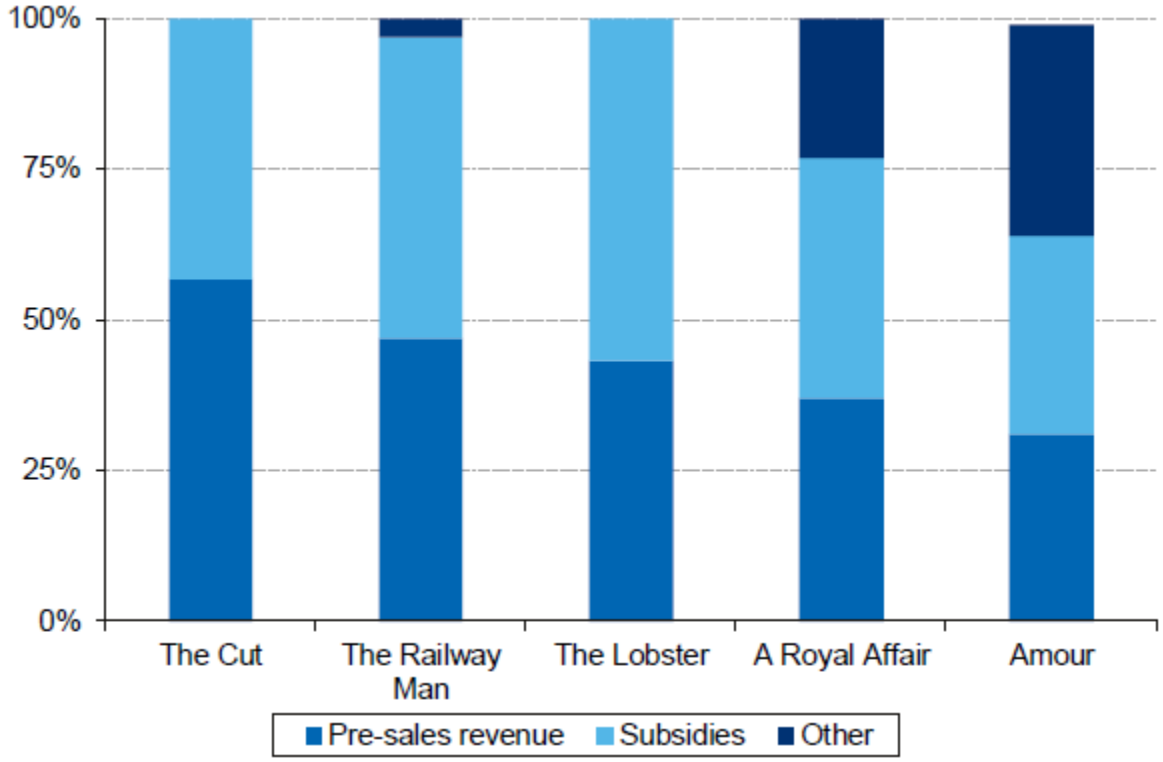
[45] See for instance the explanation in Oxera (2016), which was conducted on behalf of the industry. "The extent to which producers expect to achieve a reasonable return on their investment is key to the decision to invest in content. A mechanism known as 'green-lighting' ultimately determines the range and quality of content that is made, and thus the choice available to consumers. The decision to provide the required level of funding for a production to go ahead centres around expectations of future revenues (on a territory-by-territory basis), with the revenues that are deemed to be the least risky typically holding the most weight in the decision-making. Changes in expected revenues can therefore have a significant effect on content funding and production. The decisions to produce certain types of content—such as small-to-medium-scale locally produced films and certain TV genres (drama, children's, and factual)—are particularly prone to (even small) changes in available funding."

the film until it is actually shown in cinemas)."[46] For claim (2), CRA(2014) notes that "music and audiovisual works are experience goods and the demand for such goods is hard to predict in advance.".[47]

The importance of pre-financing (claim (3)) is also widely acknowledged. The CRA (2014) report on the Commission's behalf explains: "Pre-selling film rights is [after public financing] the other main source of funding for European films. It consists of the producer licensing, in exchange for an upfront payment, exclusive exploitation rights in a specific territory, for a given period of time and through a particular channel. A case study of four well-known European films from 2012 reported that pre-sales contributed between 31.8% and 66% of the films' total finance plans."

This is in line with case studies provided in Oxera (2016), as shown in **Figure 21**.

Figure 21. Examples of recent independent film funding



Source: Oxera (2016).[48]

[46] European Commission (2016), Impact Assessment on the modernisation of EU copyright rules accompanying the documents Proposal for a Directive of the European Parliament and of the Council on copyright in the Digital Single Market and Proposal for a Regulation of the European Parliament and of the Council laying down rules on the exercise of copyright and related rights applicable to certain online transmissions of broadcasting organisations and retransmissions of television and radio programmes, SWD(2016) 301 final, part 2/3, page 101.

[47] Pages 8-9.

[48] Oxera (2016), page 22, based on IVF/FIAPF/IFTA and MPA case studies on the financing and distribution of recent European films & television series. The note that the value chain depicted " … covers the main stages and actors in the content production and delivery process — however, it is worth noting that in many cases there is a degree of vertical integration. This is particularly true in the case of broadcasters, which often produce content in-house, as well as using independent producers, and some also have their own distribution arm."

As regards claim (4) to the effect that exclusivity or territoriality is important for pre-financing, and claim (5) that changes jeopardise the funding, it is perhaps unsurprising that the Oxera study strongly supports both contentions throughout.

Significantly, the presumably neutral CRA (2014) study also tends to support both claims. The CRA (2014) study is clear on the importance of territoriality for financing (claim (4)). "Licensing on a territory-by-territory basis appears to be essential in financing audiovisual productions."

As regards claim (5) on the risk to content production, CRA (2014) provides cautious support: "Critics of the current copyright regime, and in particular of the territorial nature of copyright, often substantiate their position with the argument that it needlessly raises transaction costs associated with multi-territorial exploitation. … Our analysis, however, suggests that this view may be a result of superficial reasoning. Policy changes to limit stakeholders' ability to exploit online content on a territory-by-territory basis are likely to impact social welfare through various mechanisms, [and] are likely to produce opposing effects on social welfare as the changes to the copyright framework are introduced." CRA (2014) goes on to warn that "…policy changes which reduce the effectiveness of territorial licensing entail a risk of undermining the associated efficiencies which do not appear to be justified by the possibility to reduce the risk of harm." These statements provide cautious support to claim (5), i.e. that any changes to the existing regime risk undermining incentives for the production of new audiovisual content.

A key question is the actual magnitude of any negative impact that a ban on geo-blocking of audio-visual content might have, both in financial terms and also in terms of possible impact on cultural pluralism. Any gains from a ban on geo-blocking should be interpreted net of corresponding costs. Are these costs small, or large?

Oxera estimates that full elimination of geo-blocking for audiovisual content, assuming that current wholesale arrangements and licensing provisions remain unchanged, would result in a near term loss of € 8,2 billion per year to producers, and a 48% reduction in the amount of content being produced. Even though consumers would obtain some gains in terms of price reductions, the reduced production would result in a net consumer loss of € 9,3 billion per year.

These negative impacts are well in excess of the gains that we identified in Section 4.1. We would, however, caution against taking too literal an interpretation of any of these results, for three reasons. First, while the Oxera results are plausible, there are no other quantitative results against which to check them. Second, there is also considerable uncertainty in our own estimates of gains in Section 4.1. Third, we note that Oxera was estimating the impact of a comprehensive ban on geo-blocking, but it may be that a more selective and targeted ban on geo-blocking could achieve results that are more manageable, a point that we explore further in Section 4.3.

As a separate concern, Plum (2012) expresses scepticism as to whether it would be cost-effective for online distributors to obtain the necessary rights to distribute high-valued content, based on the estimated costs of obtaining the necessary rights. They also question whether an offering could be viable if it offers no high valued content cross-border.[49]

[49] Plum (2012), page 177. "Under current market practice in which rights are licensed on a territorially exclusive basis, cross-border services which include internationally premium content are unlikely to have affordable rights costs (assuming that these services target niche groups such as migrants and not the mass market in foreign territories). … Services that do not include internationally premium content could be provided cross-border with lower rights costs. However, few existing linear services exclude all internationally premium content and consumer demand for these services may be low."

4.3. Means to address and mitigate the potential risks and costs

The concerns raised about negative impact on the level of content production appear to warrant serious consideration.

An approach that could be considered to mitigate these negative impacts, and that to the best of our knowledge has not previously been discussed, would be a *selective and targeted prohibition on geo-blocking*, so as not to fundamentally disrupt the predictability of revenues generated.

Referring back to **Figure 20** in Section 4.2, the windows are arranged from left to right, from earliest to latest. The earliest windows generated highest profitability per unit time, beginning with theatrical release. The Free-to-Air (FTA) window generates only a small fraction of total revenues. This logic suggests that a geo-blocking prohibition that came into play only when works reach the FTA window would put at risk only a small percentage of revenues, and would have only minimal impact on the predictability of revenues. We conjecture that a geo-blocking prohibition solely on works that were more than two years from the date of first theatrical release would have an impact of well under 10% on revenues for the works,[50] with correspondingly reduces lack of predictability of revenues and thus the risk to production of audiovisual works.

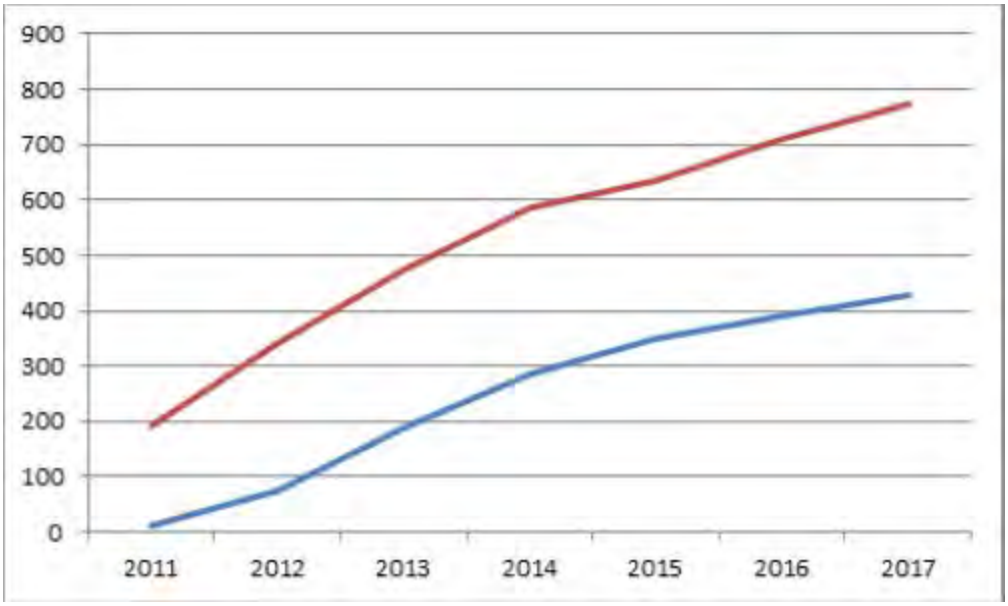
Some have suggested that imposing a prohibition on geo-blocking only on passive sales of audiovisual content solves the problem; our sense is, however, that this fails to address the concern over uncertainty of revenues on the part of producers. If content is highly sought, and available at a better price internationally than domestically, it is likely to be widely purchased that way.

Returning to the concerns raised by Plum over the ability of cross-border audiovisual services to cover costs, we note that the Plum (2012) study addressed subscription-based services (consistent with their terms of reference), which in this case means *Subscription Video on Demand (SVoD)*. *Transactional Video on Demand (TVoD)* may however be more promising for cross-border services.

TVoD services are by no means a small part of the market, as shown in Figure 22. We note however that the forecasts in this figure were made before the surge in the use of SVoD services by Netflix and Sky, which may therefore be underestimated.

[50] Bear in mind that public funding for works would presumably not be impacted, so the overall impact is somewhat less.

Figure 22. Transactional (red line) and subscription (blue line) online film revenues for 24 EU Member States (2011-2017) (€ mn)

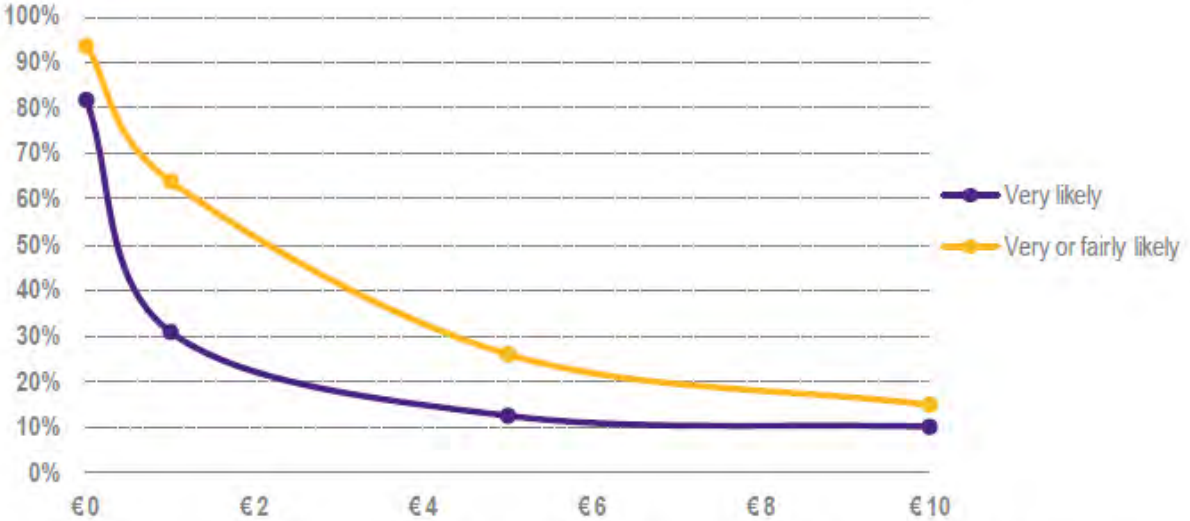


Source: IHS[51]

The survey of long-term intra-EU migrants conducted for Plum (2012) found many individuals who "… said they would be willing to pay €1 per item or more on a pay-per-view basis, but would not pay €10 or more for a monthly subscription." The WTP of these individuals is significant (see Figure 23).

[51] All figures reflect consumer spend net of VAT. IHS defines total transactional revenue as the sum of digital retail revenue and digital rental revenue. Subscription revenue does not include revenue from advertising within subscription environment. Countries covered by the data are Austria, Belgium, Denmark, France, Finland, Germany, Greece, Ireland, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, UK, Bulagria, Croatia, Czech Republic, Hungary, Poland, Romania, Slovakia, and Slovenia.

Figure 23. Willingness to pay (per item) for pay-per-view for programmes from other Member States (€).



Note: The price points for respondents in Poland, Sweden and the UK were expressed in the local currency. Owing to rounding of the converted values the equivalent Euro price points may differ slightly from those charted.

Base: 414 European migrants resident in France, Poland, Spain, Sweden and UK who have ever watched video from other countries or interested in doing so

Source: TNS online survey, September 2011.

Source: Plum (2012), page 132.

Online search has become much simpler and more convenient than in the past. It is our belief that if desired content is on offer from some merchant, consumers who want the content will find it. It is not necessary that all merchants offer all content, nor that individual suppliers package together a full channel of content. A more selective approach, where suppliers "cherry pick" the content that they believe they can sell, is likely to be better for all concerned.

In sum, a targeted approach where a geo-blocking prohibition applies only to works that are sufficiently far from the date of first theatrical release, and perhaps applies only to TVoD services, might be substantially more promising than an overall prohibition.

5. NON-AUDIOVISUAL DIGITAL CONTENT SERVICES

KEY FINDINGS

- In music, licensing agreements are rarely exclusive. It is not uncommon that these agreements cover more than one Member State and even the whole EU 28.
- Our analysis, using the same methodology as for audiovisual services, finds an aggregate EU-wide opportunity of € 19.7 million per annum, with a lower bound of € 12.1 million per annum and an upper bound of € 29.5 million per annum. The degree to which this can realised in practice is uncertain.
- Another study found that a prohibition on geo-blocking of music might result in a small overall EU welfare gain, and also in a net gain in societal welfare in most Member States: Consumers would gain €19 million per year, while producers would gain €10 million per year.
- The e-books market is quite fragmented. Publishers tend to have pan-European rights, but merchants generally have territorially restricted distribution licenses.
- Applying the same methodology, we find that a prohibition on geo-blocking of e-books and e-publications could represent an aggregate EU-wide opportunity of € 31.6 million per annum, with a lower bound of € 21.1 million per annum and an upper bound of € 45.7 million per annum.
- Any legislative initiative should take cognizance of the fixed price regulation of e-books in some Member States.
- The average online purchase of an e-publication often involves very little money. Consequently, the transaction costs associated with the support of cross-border sales (including verification of the location of the consumer in order to assess the proper VAT, and to conform to any fixed price rules) loom large relative to revenues. Special care may be needed in order to ensure that any rules imposed do not simply force small merchants to exit the e-publications business.
- There appear to be no significant impediments to cross-border purchase of games (except for the cross-border payment issues that apply to all online purchases), and therefore no unsatisfied consumer demand that could be addressed by a prohibition on geo-blocking; consequently, (following the methodology we have used for audiovisual services, music, and e-publishing) that the benefits of a prohibition on geo-blocking of games are minimal.
- On the other hand, since no practices would change, the only costs incurred would be transition and transaction costs.

In this chapter, we review geo-blocking in regard to music, e-books, and games and software, and consider for each the likely economic impact of possible inclusion within the scope of the proposed geo-blocking Regulation.

5.1. Music

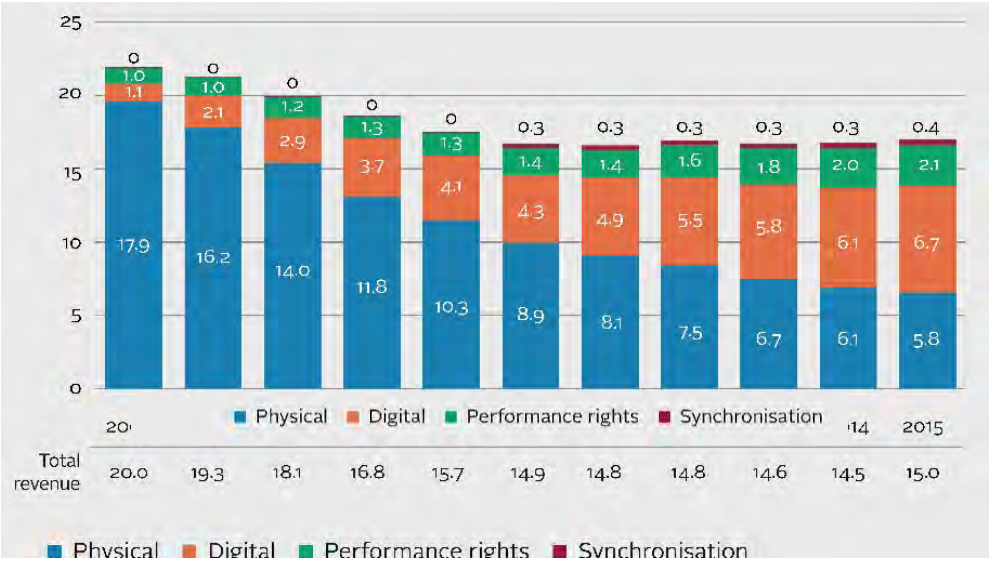
In 2015, recorded music revenues totalled $15 billion (USD), up 3.2% from 2014. This increase reverses the previous year's 0.3% market decline. For Europe, this corresponds to $4.7 billion (USD), or € 8.67 per capita.[52]

Physical format revenues declined, while digital revenues increased by 10.2% increase. The increase was driven by a sharp 45.2% rise in revenue from streaming revenues.

[52] Bruegel calculations based on industry statistics (WIN).

Digital revenues now account for more than half the recorded music market – for the first time, revenues for digital music exceeded revenues for physical music goods.

Figure 24: Global music industry revenues 2015, US$ billion



Source: International Federation of the Phonographic Industry (IFPI) (2016), page 9.

The licensing of rights in musical works is often organized on a territorial basis although a number of music publishers (i.e. record companies) and collective management organizations[53] grant multi-territorial licenses. The copyright to a musical work is controlled by its author(s) (i.e. composers and text writers) and to the producer, with related rights belonging to performers (i.e. singers and musicians) performing a recorded work over the author's work.

Where multi-territorial licences are granted, service providers can provide their services across multiple territories. On the contrary, where licences are granted for a single territory, the service provider would not be able to offer the cross-border services without having obtained licences for all affected territories. The vast majority of music content is not licensed on an exclusive basis (e.g. most musical works are available from multiple service providers in the same Member State); thus, the licensing practice of rights holders does not create real obstacles.

5.1.1. Potential benefits: Our estimate

In assessing the economic impact of removing geo-blocking restrictions, it is important to bear in mind that **exclusivity and territorial licencing are less prevalent than in the audiovisual sector**. As a result, music availability across EU Member States reaches 80%, while the corresponding percentage for audiovisual content is only 40%. Gomez and Martens (2015)[54] illustrate that language and home market bias remain major drivers of availability – while availability of domestic music hovered around 1-4% of the total number of songs in

[53] Collective management organisations play a crucial role in the licensing of online authors' rights in Europe. They manage repertoires, i.e. portfolios of rights that they have been mandated to administer on behalf of their members, in a given country, usually on behalf of authors or publishers from that country. Their main functions consist of granting licences to commercial users, collecting the associated royalties, redistributing them to rightholders and tracking music use.

[54] Gomez-Herrera and Martens (2014), "What's Going On? Digitization and Global Music Trade Patterns since 2006", JRC.

a country store, consumer preferences for domestic music are strong and consumer demand for domestic music represents 17-18% of total demand. This shows that, on average, domestic music ranks considerably higher on the iTunes music charts than foreign music.

At the same time, geographic market segmentation facilitates substantial price discrimination. In particular, 45% of song tracks and 70% of music albums are subject to price differentiation in at least one country.

It is important to note that much of today's international demand, both within Europe and beyond, is already being satisfied, any impediments notwithstanding.[55]

Nonetheless, there are impediments. A recent Eurobarometer survey found: "Overall, more than half of respondents (56%) who have tried to access content cross border have experienced problems: in particular 27% only had limited access to the content and could not access or download what they wanted. … The respondents who have not tried to access digital content through an online service generally meant for users in another Member State would be most likely to be interested in accessing audio-visual content (29%) or music (23%)."

Again, there is a distinct preference for content for the home country, and language clearly plays a role; however, not every European who listens to music from the US or the UK is a fluent speaker of the English language.

We assume that digital music is most often purchased for an individual rather than an entire household.

Taking all of this together, we assume that the number of long-terms and short-term intra-EU migrants and the number of travellers who would want unfettered cross-border access to music is similar to that for audiovisual media. Willingness to Pay (WTP), however, must be far less. Average expenditure per capita is just € 8.67 per year. If long term migrants are willing to pay twice as much as the current European average, that still represent an increment of less than one euro per month.

We assume that 70-80% of the needs for cross-border content are already met, and that only 10% of those who want the service would be unable to get it (perhaps because they have neither a personal computer nor a smart phone.

We assume that all Europeans are interested in cross-border music, but that those with a second language are somewhat more willing to pay for it.

Taking all of this together, we come up with an aggregate EU-wide opportunity of € 19.7 million per annum, with a lower bound of € 12.1 million per annum and an upper bound of € 29.5 million per annum. In each case, this represents the incremental amount that consumers are willing to spend. The degree to which this can realised in practice is uncertain.

Our calculations appear in Table 4.

5.1.2. Potential benefits: another estimate

Aguiar and Waldfogel (2014) provide a structural empirical analysis of the impact of a policy shift that better facilitates cross-border trade. Using comprehensive Nielsen data on digital track sales in the US, Canada, 13 EU Member States, and two other European countries (Norway and Switzerland) from 2006 to 2011, they use a structural model of music demand which enables them to estimate the consumer surplus in each destination country as well as the revenue for producers in each origin country. **By removing geo-blocking, consumers**

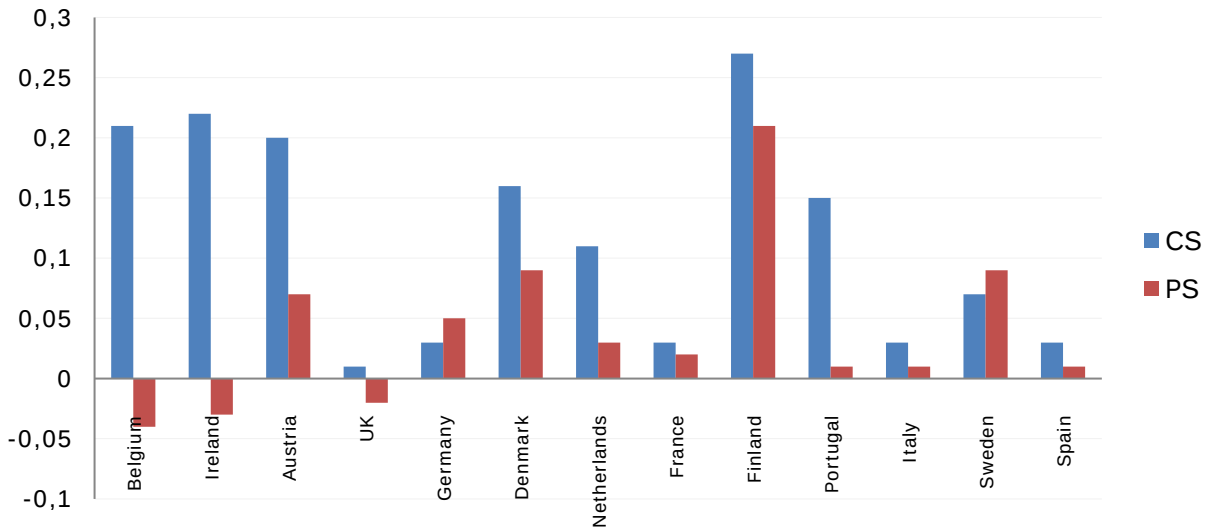
[55] Gomez-Herrera and Martens (2014), "What's Going On? Digitization and Global Music Trade Patterns since 2006", JRC, pages 5-6.

in the European countries of the sample gain €19 million per year (a 1.8 % increase), or an average of €0.05 per capita, while producers in the European countries of the sample gain €10 per year (a 1.1% increase), or an average of €0.025 per capita.

This estimate is not inconsistent with ours. Aguiar and Waldfogel were measuring societal welfare rather than WTP, under somewhat different assumptions, and using a far more refined model.

Once again, the gains are fairly small because cross-border availability is already relatively high; thus, elimination of geo-blocking has only a limited effect.

Figure 25: Changes (in € per capita) in consumer and producer surplus from lifting geo-blocking restrictions in Europe in the music industry.



Source: Bruegel elaboration based on Aguiar and Waldfogel (2014).

Elimination of geo-blocking in the music sector can be expected to have positive effects both for consumers and for producers, but the effects differ among the Member States. In some Member States, consumers are more prone to listen to music from elsewhere than to music produced within their own Member State; likewise, there are some Member States whose music is more sought after than that of others by residents of other Member States.

Societal welfare is the sum of consumer welfare and producer welfare. The results of Aguiar and Waldfogel (2014) suggest that suggest producer surplus (profits) declines slightly in Belgium, Ireland, or the UK; however, net societal welfare increases in nearly every Member State, i.e. the height of the blue bar in Figure 25 plus the height of the red bar (whether positive negative) is always positive, with the sole exception of the UK.

Are these findings for Belgium, Ireland, or the UK of great concern? We would argue otherwise. The findings do not demonstrate full *Pareto optimality* (where at least one party is better off, and nobody is worse off); however, they demonstrate *Kaldor-Hicks optimality*, where those that are made better off could hypothetically compensate those that are made worse off and lead to a Pareto-improving outcome. This is usually sufficient to justify a policy intervention.

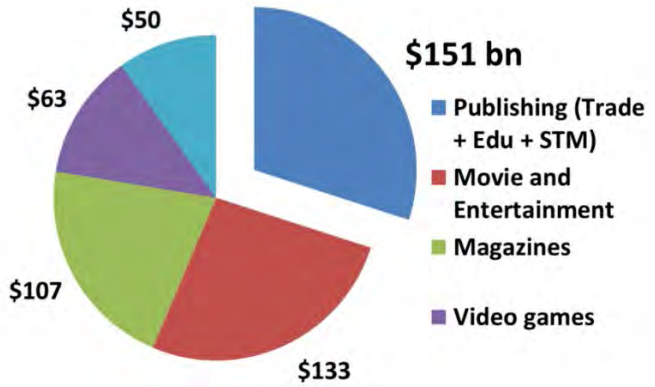
Since the production of music is less costly than the production of films, any potential negative dynamic effects on financing the content from removing geo-blocking restrictions (e.g. in the UK) are less of a concern.

5.2. E-books and ePublishing

Total market volume of was $3.6 billion (USD) in 2016, of which e-books account for 64.3%. ePublishing is a growing segment, with a compound annual growth rate (CAGR) of 8.5%. The volume is expected to reach $5.5 billion (USD) in 2021.[56] This works out to per capita expenditure of € 9,74 per annum, which is in the same general range as music.

The global estimated value of book publishing reaches $151 billion (USD) and exceeds the value of other media and entertainment industries, as shown in Figure 26.

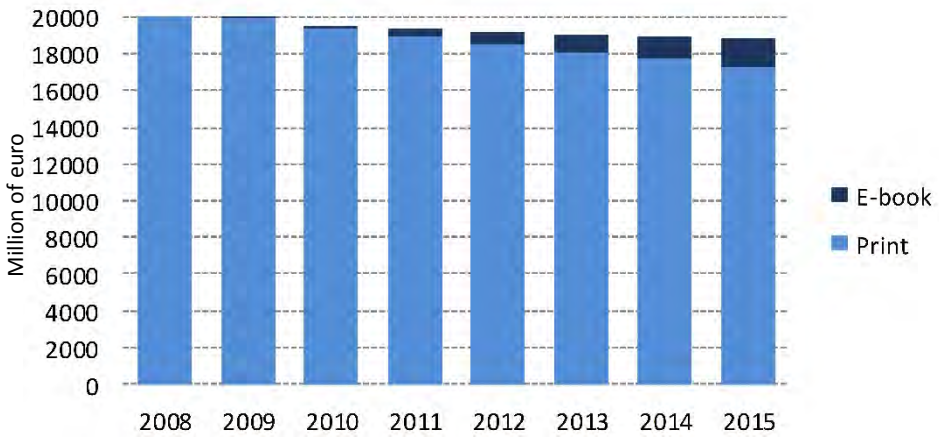
Figure 26: Estimated value of publishing, media and entertainment industries (USD bn).



Source: Wischenbart (2014).

The e-book market represents a smaller fraction by revenues of the publishing industry than digital music does for the music industry. IDATE Consulting (2011) predicts that revenues from e-books for the period 2008 – 2014 will increase from less than 1% of the total book market to around 17% of the total book market in the US. Smaller but significant increases are expected in European markets. Despite the increase in eBook revenues, the total revenue of the industry declines.

Figure 27: The evolution of top 5[57] EU printed and e-book market



Source: IDATE Consulting (2011).

As the impact assessment on portability[58] describes, publishers typically acquire exclusive rights from the rights holders but on at least pan-European basis. They then license

[56] Statista (2016), "Digital Media: ePublishing".

[57] Germany, France, UK, Italy, Netherlands and Spain.

[58] SWD (2015) 270 final.

distributors and retailers to sell the e-book, usually under a territorially restricted distribution licence, as we explain later in this section.

Other considerations are relevant:

- Transport and delivery costs are negligible for digital content such as e-books.
- Moreover, both cross-border availability of titles and cultural and linguistic differentiation seem to be high, as discussed in Box 2.

Box 2: The Batikas et al (2015) study on market segmentation

Batikas et al (2015) study the geographical segmentation in the EU market for e-books using data from the Amazon Kindle eBooks store. According to Wischenbart (2014), the e-book market share of Amazon in the US is 67%, while in Europe it varies across countries: UK (79%), Germany (43%) and Spain (40%).

The US Amazon.com eBook shop is universally accessible without any restrictions over the residence of the customers. In addition, Amazon runs 6 EU shops in which geo-blocking measures are applied. Each of these shops are accessible only to domestic residents plus those of four neighbouring countries. The French and the Dutch shop can also be accessed by residents of Belgium, while the German shop can also be accessed by the residents of Austria. The UK e-book shop can be accessed by the Irish residents, while the shop in Luxemburg can also be accessed by German residents. The Italian sells e-books only to Italian residents. This implies that a resident from Sweden or Greece can buy e-books only from the US store.

The study uses data from the top 100 e-books that each of the Amazon shops publishes. The authors find that:

- Prices excluding VAT are negatively correlated with VAT rates.
- Access restrictions facilitate price differentiation. The residents of the 10 European countries that can shop from more than one shop can exploit arbitrage opportunities (between the EU store in which they have access and the US one).
- Prices in the UK store are on average 9-12% higher than in the other EU stores.
- Average US prices are higher than in the EU 6 shops.
- There is no significant overlap between Top-100 lists across the stores, indicating the very high cultural and linguistic differentiation in the EU.
- However, the availability of same e-book titles across the EU stores is very high (93%). Consumers' availability in the rest 18 EU countries is almost equally high (95%). So, despite the fragmentation of the market, consumer's choice is not severely restricted.
- It is worthwhile to note that the Amazon's model to sell e-books combines a US store that no geo-blocking restriction is applies with European stores where geo-blocking is applied. This is a particular feature of this model.

Publishers typically acquire the rights from the right holders on a pan-European basis. In most cases, the publishers then licence the e-book rights to retailers in multiple territories, subject to territorial restrictions that are based on the language spoken in the territories. In some countries, the retail price of the e-book is set by the publisher within a fixed e-book price regime[59] and the retailer gets a fixed gross margin (usually around 30%;

[59] Fixed e-book price regimes that require merchants to honour the price set by the publisher are imposed by law in France, Germany, Greece, Slovenia and Spain.

however, industry sources claim that net margins are very small). In other countries, the publisher may recommend a price, but the retailer is free to set the price of its choice.

5.2.1. Potential benefits

Language clearly plays a crucial role for e-books. One must be able to read an e-book. At the same times, those who are studying a second language may have strong interest in books written in the language.

We assume that e-books are most often purchased for an individual rather than an entire household.

Similar to our analysis of music, we assume that the number of long-term and short-term intra-EU migrants and the number of travellers who would want unfettered cross-border access to e-books is similar to that for audiovisual services and for music. Willingness to Pay (WTP) will reflect the fact that per capita expenditure is just € 9.74 per annum – this is in the same general range as music, but far less than average per capita expenditure for audiovisual content. If long term migrants are willing to pay twice as much as the current European average, that still represent an increment of less than one euro per month.

We assume that 90% of the needs for cross-border content are already met, and that only 5% of those who want the service would be unable to get it (perhaps because they have neither a personal computer nor a smart phone).

This is not necessarily at odds with claims by the European & International Booksellers Federation that only 1% of Europeans want to purchase e-books across borders.[60] It is possible that that they are not considering migrant communities, or it is possible that they mean this to be net of the demand that is already satisfied.

Taking all of this together, we come up with an aggregate EU-wide opportunity of € 31.6 million per annum, with a lower bound of € 21.1 million per annum and an upper bound of € 45.7 million per annum. In each case, this represents the incremental amount that consumers are willing to spend. The degree to which this can realised in practice is uncertain.

Our calculations appear in Table 5.

5.2.2. Potential risks of a prohibition on geo-blocking

If geo-blocking were to be prohibited in general, it would still be necessary to take into account any fixed prices that may be imposed by law. E-books fall within the category of cultural goods, and may be subject to price regulation in the country of consumption, as explained earlier in this section.

The average online purchase of an e-publication often involves very little money. Consequently, the transaction costs associated with the support of cross-border sales (including verification of the location of the consumer in order to assess the proper VAT, and to conform to any fixed price rules) loom large relative to revenues. Special care may be needed in order to ensure that any rules imposed do not simply force small merchants to exit the e-publications business.

5.3. Computer Games and Software

The video games industry is a growth area, and an opportunity for Europe. An observed trend is that games are more and more played online and the majority of new games being developed are for online play.

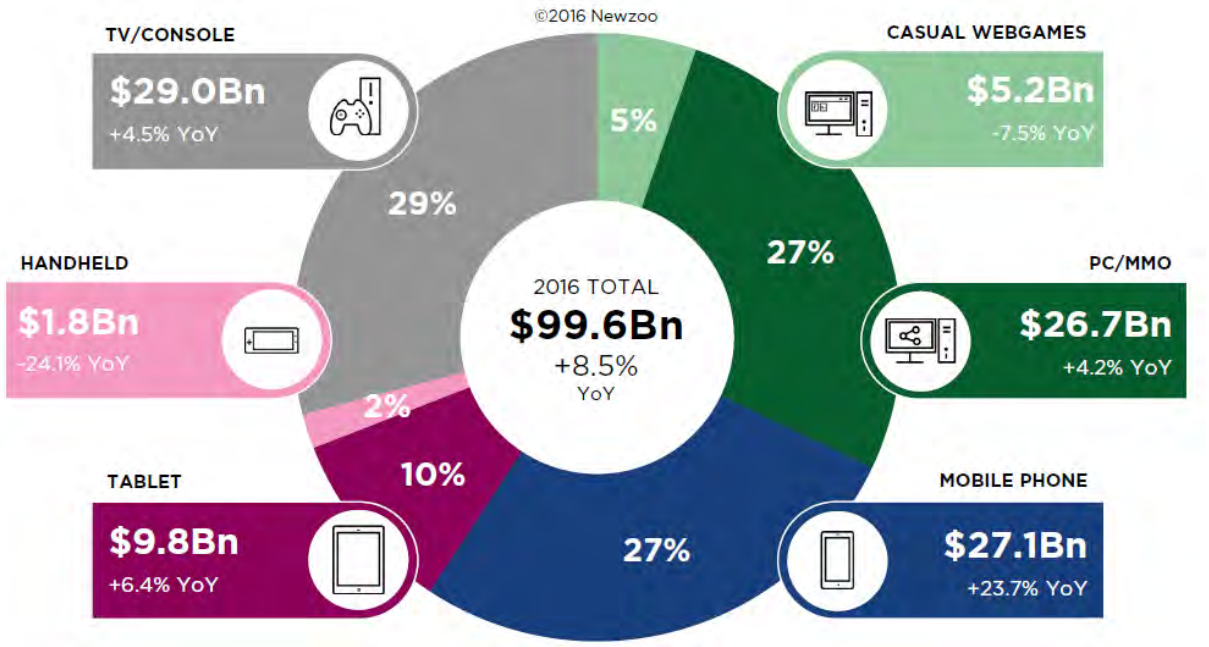
[60] For instance, in brochures such as “The market is the key”.

The main platforms can be divided to[61]:

- PC games platforms: 70% of home computer owners are PC gamers and 40% of the population have home PCs. Williams (2002) provides evidence of low entry barriers in the PC gaming as well as low development costs.
- Console and handheld games platforms: This is a concentrated market in which the main players are Sony (Playstation), Microsoft (Xbox) and Nintendo.
- Mobile and Tablet platforms: The most highly evolving market. The annual growth of mobile gamers reaches 23.7%.[62] In 2016, mobile games are expected to reach 37% of the global market.

The total value of the global games market is estimated at $99.5 billion (see Figure 28) and it is fast growing. The value chain of games market is presented in Figure 19. Games developers and suppliers are companies that invest and develop video games and the associated software. They are usually studios with multidisciplinary teams. In Europe, there exist a large number of small development studios, mainly in UK, France, Germany and the Nordic countries. Some developers publish their own games by themselves (for example the ones in Norway). Games publishers are companies that publish video games that they either develop internally or have ordered from games developers. They opt for games platform diversification publishing games titles that can be played at different platforms. US and Japanese companies mostly hold the lead in the publishing stage. Distributors are companies that market the games by handling the packaging and transport, organizing the infrastructure for distribution, covering the logistics and so on. While big publishers can promote their games by themselves, independent developers (namely, developers that they develop games by themselves without receiving any order by the publishers) usually promote their games with the help of distributors.

Figure 28. Global Games Market per platform with year-on-year annual growth rates.



Source: Newzoo Global Games Market Report (2016).

[61] De Prato, G.; C. Feijóo; D. Nepelski; M. Bogdanowicz; and J.P. Simon (2010), "Born Digital / Grown Digital: Assessing the Future Competitiveness of the EU Video Games Software Industry", JRC/IPTS Scientific and Technical Reports, EUR 24555 EN – 2010.

[62] Newzoo Global Games Market Report (2016)

Figure 29. Games value chain.

Source: De Prato, G.; C. Feijóo; D. Nepelski; M. Bogdanowicz; and J.P. Simon (2010).

Relevant data[63] shows that one in three app downloads are games and two thirds of all mobile app spending is on gaming. In 2012, there were more than 500 million mobile gamers, with 35% of these (175 million) spending money. The diversification of delivery channels brought by mobile and online videogames allowed moving from console games/packaged products and a handful of global publishers to a self-publishing model. That created opportunities for companies located in smaller markets to reach a global market. Moreover, new online and mobile opportunities emerged giving the chance to internet service providers, social networks, telecom operators and handset manufacturing companies to enter the games market.

While online game developers were traditionally the holders of rights and would grant licences to game publishers, as the sector evolves and new forms of distribution emerge, copyright ownership and licensing is changing too. Game developers often distribute games themselves - directly over the Internet or through application stores (which act as agents for the game developers). On the other hand, game publishers tend to produce games themselves and rely less on independent game developers.

Game developers and publishers usually make their games available without territorial restrictions and typically publish them simultaneously in multiple territories. In the absence of territorial restrictions and given the fact that downloading is still a prevalent mode to access games, consumers do not face obstacles to access cross-border games[64] other than the challenges with cross-border payments that impact all online purchases.

5.3.1. Potential benefits

So far as we can determine, there are no significant impediments (other than the challenges with cross-border payments that impact all online purchases), and therefore no unsatisfied consumer demand that could be addressed by a prohibition on geo-blocking. This implies (following the methodology we have used for audiovisual services, music, and e-publishing) that the benefits of a prohibition on geo-blocking of games in terms of expanded market potential would be minimal.

[63] Newzoo Trend Report on Online Games (2012)

[64] This is confirmed by interviews with a number of experts.

On the other hand, since no practices would change, the only costs would be transition and transaction costs.

In light of the evolving nature of the sector and the ongoing convergence across all forms of media, there would appear to be logic in taking a consistent approach to all forms of online digital media.[65]

[65] The Commission has argued the same. European Commission (2015), "Impact Assessment accompanying the document Proposal for a Regulation of the European Parliament and of the Council to ensure the cross-border portability of online content services in the internal market" SWD/2015/0270 final, page 21.

6. KEY FINDINGS

In this chapter, we briefly summarise our findings in regard to the questions that we have been called on to study.

6.1. Economic evaluations of the economic consequences of prohibiting geo-blocking as the Commission proposes

We were asked to provide summaries of available economic evaluations of the economic consequences of prohibiting or limiting geo-blocking in general, and of the Commission's legislative proposal in particular.

The impact assessment accompanying the Commission's legislative proposal finds that their proposal should increase both consumer surplus and producer surplus. The empirical analysis on which the Commission's Impact Assessment was based found that ending geo-blocking of goods would reduce the average price of online goods by about 1%, and the average price of offline goods by about 0.5%, thus resulting in an increase in consumer surplus of 1.2%. It also found that profits of producers would increase 1.4%. We consider these findings to be reasonable. It is important to note, however, that Duch-Brown and Martens (2016) were modelling the effects if cross-border transaction costs for all goods were the same as for domestic sales, with the exception of an allowance for the cost of shipping the goods. Transaction costs for cross-border sales of goods are higher than domestic transaction costs for many reasons, of which geo-blocking is only one. **If enacted, the Commission's geo-blocking legislative proposals alone would not achieve all of the gains that the study has identified.** If one however considers the collective impact of the full range of Digital Single Market legislative proposals, including not only the proposed geo-blocking measures but also the proposed simplification of VAT, increased harmonisation of consumer protection rules, simplification of collection of rights under copyright, and reduction in cross-border parcel delivery prices, the combined impact might approach the levels identified in the study.

The scope of the empirical study is also not the same as that of the Commission's legislative proposal, but the conclusions are directionally correct.

6.2. Estimating potential economic benefits of extending the prohibition on geo-blocking to cover copyrighted services

We were called on to estimate the impact of extending the Commission's geo-blocking proposals so as to cover copyrighted services, including audiovisual services, music, e-books and e-publishing, and games. We have analysed these services independently of one another, but there is an argument to be made that either all should be included in scope, or else all excluded. With the evolving nature of the sector, there is convergence across all forms of media.

We employed a consistent methodology across the various forms of copyrighted material in order to do so.

It is clear that there are different segments of the European population that will have differing levels of interest in various forms of digital content. In order to analyse demand, it was necessary to proceed in steps with that in mind:

- We began with a taxonomy (i.e. a categorisation) of different population segments within the EU that are likely to have varying degrees of demand, and estimated the number of individuals and households in each group;
- We estimated the number of individuals (or, where relevant, the number of households) in each group that would be likely to wish to procure the service in question;

- We estimated the distribution of the willingness to pay (WTP) of those who would wish to procure the service, establishing lower and upper bounds;
- We corrected the results to reflect that some are already receiving the service in some other way (for instance, by "grey market" legal satellite services in the case of audiovisual services) and to reflect the fact that the service may not be realistically available to all those who desire it.

The taxonomy distinguishes between those who are away from their country of origin (including long-term and short-term intra-EU migrants, as well as travellers) versus those who either know a foreign language or are learning one. These factors influence the willingness to pay for cross-border access to content as well as the ability to absorb it.

We have attempted to use current, reliable quantitative data wherever it was available; however, in many cases, it was necessary to make estimates and extrapolations due to lack of data.

6.3. Extending the legislative proposal to cover audiovisual services

In the audiovisual sector, exclusive territorial licenses for only one Member State are very common; moreover, the widespread use of release windows leads to a portioning not only in terms of geography, but also of time. Elimination of these restrictions in this commercially important sector has the potential to unlock value, but there are also issues that would need to be considered.

Based on survey results and a previous study (Plum (2012)), it is clear that long-term intra-EU migrants have particularly strong interest and significant WTP for cross-border access to audiovisual content. Those with proficiency in a second language or are studying a second language are also likely to have both the ability to appreciate audiovisual content without translation, and an interest in it.

We identified an aggregate EU-wide opportunity of € 378 million per annum, with a lower bound of € 189 million per annum and an upper bound of € 945 million per annum in consequence of prohibiting geo-blocking of audiovisual content. In each case, this represents the incremental amount that consumers are willing to spend; however, the degree to which this can realised in practice is uncertain.

A prohibition on geo-blocking of audiovisual content carries certain risks. There is a natural temptation to view this partitioning of the European audiovisual market as harmful, and there is indeed no question that it runs counter to the logic of the Single Market that we take for granted in most contexts. It is important to bear in mind, however, (1) that this market partitioning in terms of both geography and time exists for a number of valid reasons, and (2) that it generates benefits for European consumers, not just costs. Notably, lifting geo-blocking restrictions in the audiovisual sector raises concerns about the creation of new content and how it would be financed. There is a risk that less content would be produced, thus reducing consumer choice and consumer welfare. Questions have also been raised as to whether subscription-based cross-border services (SVoD services) would be commercially viable.

There are measures that could be considered to mitigate these risks, such as imposing the prohibition only on works where sufficient time has passed from first theatrical release, or by limiting the prohibition to Transactional Video on Demand (TVoD) services.

6.4. Extending the legislative proposal to cover other online content services such as music, e-books, and games

We performed an analysis of the market opportunity associated with elimination of geo-blocking of music, and also of e-publishing and e-books, using the same methodology as for audiovisual content. A snap summary of results appears at the end of this section.

There are important differences in the way in which consumers relate to these various forms of content. For instance, language skills are even more important for e-books than for audiovisual content; conversely, language skills are much less crucial for digital music.

Based on an analysis by Aguiar and Waldfogel (2014), prohibiting geo blocking of digital music would provide consumers in ten sampled European countries with a gain of €19 million per year (a 1.8 % increase), or an average of €0.05 per capita, while producers in the ten sampled European countries would gain €10 million per year (a 1.1% increase), or an average of €0.025 per capita. The gains are fairly small because cross-border availability is relatively high; thus, elimination of geo-blocking has only a limited effect.

Elimination of geo-blocking in the music sector can be expected to have positive effects both for consumers and for producers, but the effects differ among the Member States. In some Member States, consumers are more prone to listen to music from elsewhere than to music produced within their own Member State; likewise, there are some Member States whose music is more sought after than that of others by residents of other Member States.

Societal welfare is the sum of consumer welfare and producer welfare. The results of Aguiar and Waldfogel (2014) suggest that producer surplus (profits) declines slightly in Belgium, Ireland, or the UK; however, net societal welfare increases in nearly every Member State with the sole exception of the UK.

Are these findings for Belgium, Ireland, or the UK of great concern? We would argue otherwise. The findings do not demonstrate full *Pareto optimality* (where at least one party is better off, and nobody is worse off); however, they demonstrate *Kaldor-Hicks optimality*, where those that are made better off could hypothetically compensate those that are made worse off and lead to a Pareto-improving outcome. This is usually sufficient to justify a policy intervention.

Since the production of music is less costly than the production of films, any potential negative dynamic effects on financing the content from removing geo-blocking restrictions (e.g. in the UK) are less of a concern.

Any prohibition of geo-blocking for e-books would need to take cognizance of fixed price obligations imposed in several of the Member States.

The average online purchase of an e-publication often involves very little money. Consequently, the transaction costs associated with the support of cross-border sales (including verification of the location of the consumer in order to assess the proper VAT, and to conform to any fixed price rules) loom large relative to revenues. Special care may be needed in order to ensure that any rules imposed do not simply force small merchants to exit the e-publications business.

The aggregate opportunity, in millions of euro per year, appears in Table **1** based on current usage (and thus without considering how usage might evolve in the future). Whether the opportunity could be fully realised depends on many factors, including the business decisions that market players would eventually take.

Table 1. The aggregate annual opportunity associated with prohibiting geo-blocking of various copyrighted services.

	Audiovisual content	Music	e-books and e-publishing
Minimum aggregate opportunity (€ mn)	€ 189,1	€ 12,1	€ 21,1
Expected aggregate opportunity (€ mn)	€ 378,1	€ 19,7	€ 31,6
Maximum aggregate opportunity (€ mn)	€ 945,4	€ 29,5	€ 45,7

Source: Bruegel calculations

Computer games and software are a complicated space where in general geo-blocking does not appear to be taking place, other than the challenges with cross-border payments that impact all online purchases. The same methodology applied to the analysis of the other copyrighted services therefore leads us to conclude that a prohibition on geo-blocking would have minimal effect; on the other hand, the cost of imposing such a rule would be limited to transition costs and transaction costs.

In light of the evolving nature of the sector and the ongoing convergence across all forms of media, there would however appear to be logic in taking a consistent approach to all forms of online digital media.[66]

6.5. The legislative proposal itself

Aside from the areas already addressed, there are a few additional aspects of the Commission's legislative proposal that in our view merit further consideration.

The first relates to the exemption of small merchants from non-discrimination obligations under Article 4. The Commission's text is fairly careful to exclude instances where cross-border parcel delivery is required from the scope of Article 4; however, there are many other factors that cause cross-border costs (and related learning costs and transaction costs) to be higher than domestic costs, and we would suggest that these may need greater recognition than is visible in the current text. Among the relevant costs are:

- Consumer protection rules in a number of the Member States that exceed the requirements of the Consumer Rights Directive;
- Different VAT rules and rates;
- Packaging and labelling rules.

Some of these are acknowledged in other Commission legislative proposals, and might possibly be mitigated by measures already proposed; however, there is no assurance as to what will ultimately be enacted, nor is there any assurance that these other instruments (many of which are Directives rather than Regulations) would come into effect before the geo-blocking Regulation does.

In this legislative proposal, the Commission proposes to exempt any traders that are exempt from VAT from Article 4 obligations when they ship digital online goods to other Member

[66] The Commission has argued the same. European Commission (2015), "Impact Assessment accompanying the document Proposal for a Regulation of the European Parliament and of the Council to ensure the cross-border portability of online content services in the internal market" SWD/2015/0270 final, page 21.

States; for many of the Member States, however, this establishes a threshold of just €5000, which is in our view an order of magnitude too low.

Aside from that, the legislative proposal requires non-discrimination for categories of good and services that exclude any goods that require cross-border shipment. This is a rather large "carve out". One could instead consider a non-discrimination obligation under these circumstances that precludes the price premium for exceeding the justifiable cost difference, the largest component of which is the cost of cross-border parcel delivery. Clearly, it would be necessary to have some simple means of setting a cap to this price difference; otherwise, transaction costs would eat up any potential benefits.

The incremental cost of cross-border parcel delivery should never exceed the degree to which the published price of shipping the parcel in question cross-border by the National Postal Operator (NPO) exceeds the published price of shipping the same parcel to a domestic destination by the same NPO. Often, the difference will be less. Whether any other costs need to be explicitly accommodated would require some analysis, but this seems to be a direction worth studying (for future legislation if not for an amendment to the current legislative proposal).

Finally, we observe that reform of copyright is proceeding at the same time, but on a separate legislative track from that of geo-blocking. These are distinct problems, but they are interrelated.[67] There is a risk that the gains identified in this study will not be realised unless copyright is also modernised.

[67] See for instance KEA (2012), "Licensing music works and transaction costs in Europe".

ANNEX: ESTIMATES OF DEMAND FOR CROSS-BORDER ACCESS TO DIGITAL CONTENT

Table 2. Basis of estimates of the size of population segments with demand.

Number	Population category	As of	Calculation	Sources
1	Long-term intra-EU migrants	2012	Latest published data	http://ec.europa.eu/eurostat/statistics-explained/index.php/EU_citizenship_-_statistics_on_cross-border_activities
2	Short-term intra-EU migrants	2012	Rough estimate	Plum (2012)
3	Intra-EU travellers	2012	Rough estimate expressed in tourist years	Plum (2012)
4	Total	2012	Sum of 1, 2, and 3 above	
5	Able to follow news: English	2012	Survey percentage * population (14 below)	Special Eurobarometer 386, "Europeans and their Languages", page 29; population, see below
6	Able to follow news: another European language	2012	Survey percentage * population (14 below)	Special Eurobarometer 386, "Europeans and their Languages", page 29; population, see below
7	Total	2012	Survey percentage (unable to follow news) * pop	Special Eurobarometer 386, "Europeans and their Languages", page 29; population, see below
8	Language learners: English	2012	Survey percentage * population * 65%	Special Eurobarometer 386, "Europeans and their Languages", page 55-56; population, see below
9	Language learners: another European language	2012	Survey percentage * population * 35%	Special Eurobarometer 386, "Europeans and their Languages", page 55-56; population, see below
10	Total	2012	Sum of 8 and 9 above	
11	Linguistic minorities	2012	Rough estimate	Plum (2012)
12	Total with foreign language skills or interest	2012	Sum of 7, 10, and 11 above	
13	Other European Union residents	2012	Population of EU - (4 + 12 above) (ignoring overlaps)	
14	Population of the European Union	2016	Census	http://ec.europa.eu/eurostat/tgm/table.do?tab=table&plugin=1&language=en&pcode=tps00001

Table 3. Estimated cross-border demand for SVoD audiovisual services.

	Away from the country of origin				Foreign language skills or interest									
					Language proficiency			Language learners						
	Long-term intra-EU migrants	Short-term intra-EU migrants	Intra-EU travellers	Total	Able to follow news: English	Able to follow news: another European language	Total	Language learners: English	Language learners: another European language	Total	Linguistic minorities	Total with foreign language skills or interest	Other European Union residents	Grand total
Residents with interest in cross-border content (mn)	17,2	1,0	3,7	21,9	127,6	122,4	224,5	69,6	37,5	107,1	4,0	335,6	174,6	
Audiovisual content														
Fraction of individuals wanting to acquire the service	34%	*20%*	*10%*		*3%*	*3%*		*3%*	*5%*		*20%*		*3%*	
Fraction of individuals already served	7%	*5%*	*3%*		*1%*	*1%*		*1%*	*2%*		*5%*		*1%*	
Fraction of individuals who cannot be served	10%	*5%*	*3%*		*1%*	*1%*		*1%*	*2%*		*5%*		*1%*	
Individuals likely to acquire service	2,9	0,1	0,1	3,2	1,3	1,2	2,5	0,7	0,4	1,1	0,4	4,0	1,7	8,9
Households likely to acquire service	1,2	0,0	0,1	1,3	0,5	0,5	1,0	0,3	0,2	0,4	0,2	1,7	0,7	3,7
Least WTP for those likely to acquire service (€/mo)	€ 10,00	*€ 10,00*	*€ 4,00*		*€ 4,00*	*€ 4,00*		*€ 4,00*	*€ 4,00*		*€ 4,00*		*€ 4,00*	
Average WTP (€/mo)	€ 20,00	*€ 20,00*	*€ 8,00*		*€ 8,00*	*€ 8,00*		*€ 8,00*	*€ 8,00*		*€ 8,00*		*€ 8,00*	
Greatest WTP for those likely to acquire service (€/mo)	€ 50,00	*€ 50,00*	*€ 20,00*		*€ 20,00*	*€ 20,00*		*€ 20,00*	*€ 20,00*		*€ 20,00*		*€ 20,00*	
Least aggregate opportunity (€ mn)	€ 146	€ 5	€ 3	€ 154	€ 26	€ 24	€ 50	€ 14	€ 7	€ 21	€ 8	€ 0	€ 35	€ 189
Expected aggregate opportunity (€ mn)	€ 292	€ 10	€ 6	€ 308	€ 51	€ 49	€ 100	€ 28	€ 15	€ 43	€ 16	€ 0	€ 70	€ 378
Expected aggregate opportunity (€ mn)	€ 731	€ 25	€ 15	€ 771	€ 128	€ 122	€ 250	€ 70	€ 37	€ 107	€ 40	€ 0	€ 175	€ 945

Table 4. Estimated cross-border demand for music.

	Away from the country of origin				Foreign language skills or interest									
					Language proficiency			Language learners						
	Long-term intra-EU migrants	Short-term intra-EU migrants	Intra-EU travellers	Total	Able to follow news: English	Able to follow news: another European language	Total	Language learners: English	Language learners: another European language	Total	Linguistic minorities	Total with foreign language skills or interest	Other European Union residents	Grand total
Residents with interest in cross-border content (mn)	17,2	1,0	3,7	21,9	127,6	122,4	224,5	69,6	37,5	107,1	4,0	335,6	174,6	
Music														
Fraction of individuals wanting to acquire the service	34%	*25%*	*10%*		23%	23%		23%	23%		*25%*		23%	
Fraction of individuals already served	28%	*20%*	*7%*		17%	17%		17%	17%		*20%*		17%	
Fraction of individuals who cannot be served	3%	*2%*	*1%*		2%	2%		2%	2%		*2%*		2%	
Individuals likely to acquire service	21,9	0,8	0,3	23,0	5,1	4,9	-	2,8	1,5	-	1,2	-	7,0	30,0
Least WTP for those likely to acquire service (€/mo)	€ 0,50	€ 0,50	€ 0,20		€ 0,15	€ 0,15		€ 0,15	€ 0,15		€ 0,20		€ 0,10	
Average WTP (€/mo)	€ 0,80	€ 0,80	€ 0,40		€ 0,30	€ 0,30		€ 0,30	€ 0,30		€ 0,40		€ 0,20	
Greatest WTP for those likely to acquire service (€/mo)	€ 1,20	€ 1,20	€ 0,60		€ 0,45	€ 0,45		€ 0,45	€ 0,45		€ 0,60		€ 0,30	
Least aggregate opportunity (€ mn)	€ 11,0	€ 0,4	€ 0,1	€ 11,4	€ 0,8	€ 0,7	€ 1,5	€ 0,4	€ 0,2	€ 0,6	€ 0,2	€ 0,0	€ 0,7	€ 12,1
Expected aggregate opportunity (€ mn)	€ 17,5	€ 0,6	€ 0,1	€ 18,3	€ 1,5	€ 1,5	€ 3,0	€ 0,8	€ 0,4	€ 1,3	€ 0,5	€ 0,0	€ 1,4	€ 19,7
Expected aggregate opportunity (€ mn)	€ 26,3	€ 0,9	€ 0,2	€ 27,4	€ 2,3	€ 2,2	€ 4,5	€ 1,3	€ 0,7	€ 1,9	€ 0,7	€ 0,0	€ 2,1	€ 29,5

Table 5. Estimated cross-border demand for e-books and other form of e-publishing.

	Away from the country of origin				Foreign language skills or interest									
					Language proficiency			Language learners						
	Long-term intra-EU migrants	Short-term intra-EU migrants	Intra-EU travellers	Total	Able to follow news: English	Able to follow news: another European language	Total	Language learners: English	Language learners: another European language	Total	Linguistic minorities	Total with foreign language skills or interest	Other European Union residents	Grand total
Residents with interest in cross-border content (mn)	17,2	1,0	3,7	21,9	127,6	122,4	224,5	69,6	37,5	107,1	4,0	335,6	174,6	
ePublishing														
Fraction of individuals wanting to acquire the service	34%	*25%*	*15%*		*10%*	*10%*		*10%*	*10%*		*25%*		0%	
Fraction of individuals already served	28%	*22%*	*10%*		*9%*	*9%*		*9%*	*9%*		*22%*		0%	
Fraction of individuals who cannot be served	0%	*0%*	*0%*		*0%*	*0%*		*0%*	*0%*		*0%*		0%	
Individuals likely to acquire service	1,6	0,0	0,0	1,6	0,0	0,0	-	0,0	0,0	-	0,0	-	-	1,6
Least WTP for those likely to acquire service (€/mo)	€ 0,60	€ 0,60	€ 0,10		€ 0,60	€ 0,60		€ 0,60	€ 0,60		€ 0,60	€ 0,60	€ 0,00	
Average WTP (€/mo)	€ 0,90	€ 0,90	€ 0,20		€ 0,90	€ 0,90		€ 0,90	€ 0,90		€ 0,90	€ 0,90	€ 0,00	
Greatest WTP for those likely to acquire service (€/mo)	€ 1,30	€ 1,30	€ 0,30		€ 1,30	€ 1,30		€ 1,30	€ 1,30		€ 1,30	€ 1,30	€ 0,00	
Least aggregate opportunity (€ mn)	€ 8,8	€ 0,3	€ 0,1	€ 9,1	€ 3,8	€ 3,7	€ 7,5	€ 2,1	€ 1,1	€ 3,2	€ 1,2	€ 11,9	€ 0,0	€ 21,1
Expected aggregate opportunity (€ mn)	€ 13,2	€ 0,5	€ 0,1	€ 13,8	€ 5,7	€ 5,5	€ 11,2	€ 3,1	€ 1,7	€ 4,8	€ 1,8	€ 17,9	€ 0,0	€ 31,6
Expected aggregate opportunity (€ mn)	€ 19,0	€ 0,7	€ 0,2	€ 19,9	€ 8,3	€ 8,0	€ 16,2	€ 4,5	€ 2,4	€ 7,0	€ 2,6	€ 25,8	€ 0,0	€ 45,7

REFERENCES

- Aguiar, L. and Waldfogel, J. (2014), "Digitization, Copyright, and the Welfare Effects of Music Trade", JRC Technical Reports.
- Batikas, M., Gomez-Herrera, E. and Martens, B. (2015), "Geographic Fragmentation in the EU Market for e-Books: The case of Amazon", JRC Technical Reports.
- COUNCIL DIRECTIVE 93/83/EEC of 27 September 1993 on the coordination of certain rules concerning copyright and rights related to copyright applicable to satellite broadcasting and cable retransmission, OJ L 248/15, 6.10.1993.
- CRA (2014), "Economic Analysis of the Territoriality of the Making Available Right in the EU", European Commission.
- De Prato, G.; C. Feijóo; D. Nepelski; M. Bogdanowicz; and J.P. Simon (2010), "Born Digital / Grown Digital: Assessing the Future Competitiveness of the EU Video Games Software Industry", JRC/IPTS Scientific and Technical Reports, EUR 24555 EN – 2010.
- DIRECTIVE 2010/13/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 10 March 2010 on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the provision of audiovisual media services (Audiovisual Media Services Directive), OJ L 95/1, 15.4.2010.
- Duch-Brown, N. and Martens, B. (2014), "Consumer Benefits from the EU Digital Single Market: Evidence from Household Appliances Markets", JRC Technical Reports.
- Duch-Brown, N. and Martens, B. (2016), The Welfare effects of lifting geoblocking restrictions in the EU Digital single Market, JRC/IPTS Digital Economy Working Paper.
- Eurobarometer 386 (2012), "Europeans and their Languages", Special Eurobarometer.
- Eurobarometer 411 (2015), "Cross-Border Access to Online Content", Flash Eurobarometer.
- Eurobarometer 413 (2015), "Companies engaged in online activities", Flash Eurobarometer.
- Eurobarometer 434 (2016), "Geo-blocking among businesses", Flash Eurobarometer.
- European Commission (2010), "Guidelines on Vertical Restraints", OJ C130.
- European Commission (2013), "Communication on state aid for films and other audiovisual works", OJ C 332.
- European Commission (2015), "Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions a digital single market strategy for Europe", COM(2015) 192 final.
- European Commission (2015), "Proposal for a Regulation of the European Parliament and of the Council on ensuring the cross-border portability of online content services in the internal market. European Commission", COM(2015) 627 final.
- European Commission (2015), Impact Assessment Accompanying the document "Proposal for a Regulation of the European Parliament and of the Council to ensure the cross-border portability of online content services in the internal market", SWD(2015) 270 final.
- European Commission (2016), "Proposal for a Regulation of the European Parliament and of the Council on addressing geo-blocking and other forms of discrimination based on

customers' nationality, place of residence or place of establishment within the internal market and amending Regulation (EC) No 2006/2004 and Directive 2009/22/EC", COM(2016) 289 final.

- European Commission (2016), Commission staff working document, "Geo-blocking practices in ecommerce - Issues paper presenting initial findings of the e-commerce sector inquiry conducted by the Directorate-General for Competition", SWD(2016) 70 final
- European Commission (2016), "Impact Assessment accompanying the document Proposal for a regulation of the European Parliament and of the Council on addressing geo-blocking and other forms of discrimination based on place of residence or establishment or nationality within the Single Market. European Commission", SWD(2016) 173 final.
- European Commission (2016), Commission Staff Working document, "Executive summary of the Impact Assessment on the modernisation of the EU copyright rules accompanying the documents Proposal for a Directive of the European Parliament and of The Council on copyright in the Digital Single Market and Proposal for a Regulation of the European Parliament and of the Council laying down rules on the exercise of copyright and related rights applicable to certain online transmissions of broadcasting organisations and retransmissions of television and radio programmes", SWD(2016) 302 final.
- European Commission (2016), "Proposal for a Regulation of the European Parliament and of the Council laying down rules on the exercise of copyright and related rights applicable to certain online transmissions of broadcasting organisations and retransmissions of television and radio programmes", COM(2016) 594.
- European Commission (2016), Commission staff working document, "Preliminary Report on the E-commerce Sector Inquiry", SWD(2016) 312 final.
- GfK (2015), "Consumer survey identifying the main cross-border obstacles to the DSM and where they matter most", European Commission.
- IDATE Consulting (2011), "E-Book markets and forecasts", 3d edition.
- IDATE Consulting (2015), "Online Content Study: Changes in the distribution, discovery and consumption of lawful and unauthorised online content".
- IFPI (2016), "Global Music Report 2016: State of the Industry".
- International Federation of the Phonographic Industry (2016), "Global music report: State of the industry overview 2016".
- International Video Federation (2013), "European video: the industry overview".
- Madiega (2016), "Patents, pirates and fair play", European Parliament Research Service.
- Oxera (2016), "The impact of cross-border access to audiovisual content on EU consumers".
- Plum Consulting (2012), "The economic potential of cross-border pay-to-view and listen audiovisual media services", European Commission.
- Posner, R. (2005), "Vertical Restraints and Antitrust Policy", The University of Chicago Law Review 72, no. 1 (2005): 229-241.

- Simonelli, F. (2015), “Geo-blocking: Unjustified barrier to the Digital Single Market or legitimate commercial practice? The case of copyrighted audiovisual content”, CEPS Digital Forum.
- Simonelli, F. (2016), “Combating Consumer Discrimination in the Digital Single Market: Preventing Geo-Blocking and Other Forms of Geo-Discrimination”, Study for the IMCO Committee, European Parliament.
- Wischenbart, R. (2014), “Global eBook: A report on market trends and developments”.

CAT: QA-01-17-137-EN-C (paper)
CAT: QA-01-17-137-EN-N (pdf)

DIRECTORATE-GENERAL FOR INTERNAL POLICIES

POLICY DEPARTMENT A
ECONOMIC AND SCIENTIFIC POLICY

Role

Policy departments are research units that provide specialised advice to committees, inter-parliamentary delegations and other parliamentary bodies.

Policy Areas

- Economic and Monetary Affairs
- Employment and Social Affairs
- Environment, Public Health and Food Safety
- Industry, Research and Energy
- Internal Market and Consumer Protection

Documents

Visit the European Parliament website:
http://www.europarl.europa.eu/supporting-analyses

PHOTO CREDIT:
iStockphoto.com; Shutterstock/beboy

ISBN 978-92-846-0678-8 (paper)
ISBN 978-92-846-0677-1 (pdf)

doi:10.2861/893609 (paper)
doi:10.2861/984713 (pdf)

Publications Office

Extending the Scope of the Geo-Blocking Prohibition: An Economic Assessment