STUDY ON THE ECONOMIC IMPACT OF THE ELECTRONIC COMMERCE DIRECTIVE

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This study provides some early estimates of the effect of the Electronic Commerce Directive (hereinafter the Directive). The directive was adopted in 2000 and transposed by most EU Member States in 2002.

The Directive sets up an Internal Market framework for electronic commerce, which provides legal certainty for business and consumers alike. It establishes harmonised rules on issues such as the transparency and information requirements for online service providers, commercial communications, electronic contracts and limitations of liability of intermediary service providers. The improved functioning of the Internal Market in electronic commerce is ensured by the country-of-origin principle, which states that in many areas of regulation a business need only comply with its domestic laws when selling abroad. In turn, the Member State in which the information society service is received cannot generally restrict incoming services.

We highlight three provisions as being particularly important.

First, we find that the harmonised provisions on limited liability have significantly improved the framework conditions for intermediary service providers. This in turn has reduced their risks and costs of conducting business. The limited liability provisions state that the primary suppliers and not the intermediary providers acting as mere conduits, caches, or hosts of information are liable for online content. Neither can a conduit of information be automatically held liable for linking to a website providing information of an illegal nature.

Second, we find that the harmonised provision allowing for concluding contracts electronically has reduced firm costs. Prior to the Directive it was uncertain in most Member States whether or not a contract concluded by electronic means, an e-contract, carried the same legal status as an off-line contract. After transposition of the Directive, firms have certainty that an e-contract carries the same legal status as an off-line contract. E-contracts have not only reduced firm costs because they are more efficiently handled than offline contracts. For many information society service providers business processes are carried out online, which means that an offline contract is a particular imposition on their very business model reducing firm productivity beyond what may be the case for more traditional firms.

Third, we find that the country of origin principle has reduced legal heterogeneity across Member States in the areas covered by the Directive. This has reduced search costs for firms as the need for keeping up to date with foreign legislation has been reduced.

Yet, we have difficulties finding clear evidence of the Directive having boosted cross border trade in information society services so far. This may be explained by the limited number of years since transposition as it takes a while for firms to adjust their business strategies.
following from new regulation. We do, however, find some *indications* of increased cross border trade. First, firm evidence suggests that the country of origin principle has been a driver for some firms to enter new foreign markets. Second, the Directive as such seems to have boosted productivity, which may be due to the cost cutting provisions of limited liability and e-contracts, but possibly also due to higher returns to scale driven by increases in cross border trade.

Quite a few firms experience barriers to cross border trade not covered by the Directive. This includes differences in fiscal legislation between Member States, difficulties in resolving complaints, different national laws on consumer contractual obligations, insecurity of payment, expensive technology necessary for handling trade with foreign markets, and language differences. The result is that many firms even though they may be successful in selling goods or services online domestically do not suddenly engage in cross border selling despite the application of the principle of country of origin to certain areas of law.

While most of the barriers just mentioned are not covered by the Directive, this is not the case for contractual obligations in consumer contracts, which are subject to derogation from the country of origin principle. Instead, the obligations may currently follow the country of destination in the area of consumer contracts, which may represent a decisive barrier for firms’ choice of not selling cross border.

At this early stage, we have only data for two or three years after transposition of the Directive. As the full impact of this Directive, or any similar directive for that matter, is not expected to materialise until several years after transposition, our findings are provisional. While finding only moderate evidence of impacts of the Directive at this stage, we suspect, on the other hand, that the long run potential gains of the Directive may be substantial. The primary reason is the scope of the Directive: it potentially impacts the entire economy. While online access to foreign markets and increased cross border trade may strengthen competition and reduce rents all across the economy, an additional effect may come through higher productivity due to economies of scale.

Finally, we note that little information exists on key indicators such as (online) cross border sales both prior to and following transposition of the Directive, making it harder to track future developments in this area.
PREFACE

The European Commission’s services represented by DG Internal Market and Services has requested Copenhagen Economics and Ramboll Management to carry out a study of the economic impact of the Electronic commerce directive (hereinafter the Directive).

The Directive sets up an improved Internal Market regulatory framework for electronic commerce to ensure that information society service providers benefit from the Internal Market principles of freedom to provide services across borders and freedom of establishment so that information society services can be developed and provided throughout the EU on the basis of enhanced legal security.
Chapter 1  MAIN FINDINGS

This study provides some early estimates of the effect of the Electronic Commerce Directive (hereinafter the Directive). The directive was adopted in 2000 and transposed by most EU Member States in 2002.

The main objective of the Directive is to bring forward a proper functioning of the internal market for information society services by facilitating the establishment of such services and their free movement between Member States.

As regards trade enhancement, the Directive provides for the application of the country-of-origin principle in certain fields. The country of origin principle states that a business needs only comply with its domestic laws when selling abroad. The Directive establishes harmonised rules on issues such as the transparency and information requirements for online service providers, commercial communications, and electronic contracts and sets down limited liability conditions for intermediary service providers.

The Directive covers information society services which are defined as:

Any service normally provided for remuneration, at a distance, by means of electronic equipment for the processing (including digital compression) and storage of data, and at the individual request of a recipient of a service (cf. article 2, which in turn refers to Directives 98/34/EC and 98/84/EC).

This means that the Directive covers both business to business and business to consumer information society services irrespective of whether or not the services are provided free-of-charge to the recipient (for example funded by advertising or sponsorship revenue) or not.

Examples of online sectors and activities covered include shopping, newspapers, databases, financial services, professional services (such as lawyers, doctors, accountants, and real estate agents), entertainment services, direct marketing, advertising and internet intermediary services (such as hosting and search engines).

The Directive is composed of a range of elements and principles to allow for this. The two key elements are the country of origin principle that applies within the coordinated field and the harmonised provisions.

Figure 1.1 below illustrates the different elements and principles of the Directive.
Figure 1.1. The elements of the Directive

The fundamental element of the Directive is the country of origin principle that applies in the co-ordinated field. The area subject to the country of origin principle encompasses non-harmonised areas (1), as well as areas harmonised by the Directive (4). In addition, the co-ordinated field covers areas subject to derogations from the country of origin principle illustrated by (2) and (3).

We find that the Directive has led to more homogeneous legal framework conditions between the Member States for information society services, cf. Figure 1.2.
Figure 1.2: Level of barriers due to legal heterogeneity in areas covered by the Directive

Note: The graph shows the extent of legal differences seen from the perspective of a firm established in each country. The maximum value of the index is one. If a country scores a value of one, it means that firms in that country will experience unclear legislation in all other countries. The figures on how the Directive has altered the legal framework conditions serve as graphical illustrations only. They are based on the questionnaire filled out by the legal experts in the Commission’s expert group. We are very grateful for the effort they have put into answering the questionnaire.

Source: Own calculations based on replies from expert group in appendix B.

The figure shows that the countries maintained a fairly high level of legal heterogeneity before the Directive. The indices are almost identical across countries as each country had its unique legislation and interpretation thereof.

Following transposition of the Directive, the index approaches zero as the country of origin principle by definition produces a value of zero. This is because the country of origin principle implies that the countries’ own legislation applies in every other Member State. The index is not exactly zero as the areas covered by derogations from the country of origin principle remain unchanged where they are not harmonised. All in all, the Directive has produced a lower level of legal heterogeneity between Member States for all Member States.

The barriers facing firms within their own Member States, domestic barriers, have been reduced according to graphical illustration in Figure 1.3.
Some barriers have increased while others have decreased following transposition. Specifically, information requirements are up while the provisions on limited liability and the ability to make use of e-contracts have led to a reduction in barriers, cf. Table 1.1. This means that some firms may have experienced a sharper drop in barriers than reflected in the net change in barriers. For example, intermediary service providers have benefited from the provisions on liability of intermediaries. If the same firms already complied with the stricter information requirements prior to transposition, they may experience the Directive to have improved their legal environment beyond what is currently implied. Therefore, the index calculations may not fit the perception of the Directive in specific industries.

### Table 1.1: Decomposition of the domestic barrier index, EU

<table>
<thead>
<tr>
<th>Establishment</th>
<th>Information requirement</th>
<th>Promotion and purchase</th>
<th>E-contracts</th>
<th>Liability and monitoring</th>
<th>Other</th>
<th>Sum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before Directive</td>
<td>0.02</td>
<td>0.04</td>
<td>0.10</td>
<td>0.06</td>
<td>0.08</td>
<td>0.12</td>
</tr>
<tr>
<td>After Directive</td>
<td>0.00</td>
<td>0.11</td>
<td>0.10</td>
<td>0.00</td>
<td>0.00</td>
<td>0.11</td>
</tr>
</tbody>
</table>

Note: A simple average over countries in Figure 1.3 is used.
Source: Calculations based on expert group responses to legal questionnaire in appendix B.

Based on these graphical illustrations (and appendix B) of how the Directive has improved the legal framework conditions, the Directive may provide for significant economic gains over time.
Box 1.1: About the indices

The indices are based on the replies from expert group members presented in full in appendix B. First we calculate the ‘domestic’ index reflecting the level of barriers within a Member State. Based on the differences in legislation between Member States, we calculate the ‘heterogeneity’ index. The heterogeneity index therefore illustrates how firms in one Member State experience that legislation in a foreign Member State constitute a barrier for cross border activities. Therefore, the heterogeneity index embeds the information in any ‘foreign’ index.

To calculate the domestic index, we assign scores to each answer in each question. A score of 1 if the answer reflects a high barrier, and a score of 0 if the answer reflects no or few barriers. For example, countries requiring information service providers to obtain an authorisation receive a score of 1. Countries that do not receive a score of zero. Summing up scores and weighting them according to the table below, results in the index.

To better get an overview of the main parts of the Directive and the questionnaire, we have categorised the questions, which we have then assigned an equal weight, cf. Table A.

Table A: Overview of categories

<table>
<thead>
<tr>
<th>Questions in questionnaire in Appendix B</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establishment</td>
<td>1/6</td>
</tr>
<tr>
<td>Information requirement</td>
<td>2, 3, 4, 5, 6, 9, 10</td>
</tr>
<tr>
<td>Promotion and purchase</td>
<td>7, 14, 16, 17</td>
</tr>
<tr>
<td>E-contracts</td>
<td>8</td>
</tr>
<tr>
<td>Liability and monitoring</td>
<td>11, 12</td>
</tr>
<tr>
<td>Other provisions covered by country of origin</td>
<td>20</td>
</tr>
</tbody>
</table>

Source: Copenhagen Economics.

We have chosen equal weights because it is a focal point. Alternative weights could be relevant for specific industries depending on their use of information society services. Since the indices are merely mend to illustrative the legal impact of the Directive, the exact weighting scheme matters less.

Source: Copenhagen Economics
1.1. INTERMEDIARY PROVIDERS AND CERTAIN ONLINE MERCHANTS HAVE BENEFITED ALREADY

We find that intermediary service providers are likely to benefit significantly from the Directive, and already have. The combination of the limited liability provisions (article 12-14) by which intermediary service providers can not automatically be held liable for content when acting as mere conduits, caches, or hosts of information and the country of origin principle, provides for much greater legal certainty, in both domestic and foreign markets. In addition, intermediary service providers can offer services more easily across borders. This allows them to exploit the benefits of the country of origin principle.

A typical firm that does not benefit greatly from the Directive is one where other barriers to cross border trade are more important than a lack of legal certainty. This may be the case for a firm lacking ICT infrastructure, cross border trade skills, or language skills. These barriers are compounded if the firm is also selling a bulk good with little brand awareness or a good or service that needs to be tailored to each country. So sometimes several other elements, in addition to legal certainty, must champion firms’ engagement in cross border activities in order for firms to pursue cross border activities.

Even if a firm does decide to pursue on-line cross border trade, the firm may wish to do so to a single foreign country only, because it faces costs proportional to the number of markets it enters. An example of such a cost is the need to constantly follow trends and tastes in the foreign markets and subsequently customise the good or service to the particular market.

Firms not seemingly benefiting because they face other more important barriers than a lack of foreign legal certainty covered by the Directive may benefit nevertheless for at least two reasons. First, in a current context; even if a firm does not trade cross borders, without the directive and its country of origin principle, its on-line advertising on its web-site could be sued in another Member State. Second, in a future context; for instance, for some firms the lack of sufficient demand in foreign markets may constitute a barrier to online selling to as they are not able to reap economies of scale. This may be the case for financial services, where retail markets are still fragmented nationally.

1.2. CROSS BORDER TRADE AND PRODUCTIVITY GROWTH

We have difficulties finding clear evidence of the Directive having boosted cross border trade in information society services so far. This is likely to be explained by the few years since transposition as it takes a while for firms to adjust business strategies following new regulation to an extent that it may be traced in statistical data. This brings us to a second

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1 This may only apply to some firms. Online advertising through a web-site may reach consumers across the world.
2 This is further discussed in chapter 4 on the long run effects.
very valid explanation, the poor statistical coverage in the area of information society services and cross border trade. The lack of statistical data in this area makes it troublesome to systematically trace developments in e.g. cross border trade.

While failing to find clear evidence of the Directive having boosted cross border trade, we do find some indications. First, firm evidence suggests that the country of origin principle has been a driver for some firms to enter new foreign markets.

Second, the Directive may has boosted productivity; primarily due to the cost cutting provisions of limited liability and e-contracts. But possible also through higher returns to scale possibly drive by increased cross border trade. While the latter effect may already be present today, we expect it to be an even more important driver of future economic gains. Another source of productivity gains is when online providers enter a foreign market segment dominated by offline providers. This may lead to fairly large decreases in prices following that online providers tend to have lower costs (higher productivity) than offline providers as the former requires to a lesser extent fixed investments and physical infrastructure. Moreover, if the online provider can provide ‘middleman’-services more effectively than offline providers, the costs of the online provider is even smaller relative to the offline providers.

**Long run gains**

Data is only available a few years after transposition of the Directive. Hence, what we measure today is by far the full impact of the Directive.

We speculate that the economic impact of the Directive may be substantial in the long run due to a substantial scope for the Directive in combination with the country of origin principle.

The Directive has the potential to affect the entire economy not just information society service providers in a narrow sense, such as intermediary service providers. In reality, any business making use of information society services may benefit from the Directive. This suggests a great scope for the Directive, and possibly a significant economic impact.

Previous assessments of the potential long run effects of the initially proposed Services Directive by the Commission suggested, for example, that regulated professions, not ‘traditional online’ operators, would benefit from the country of origin principle. One driver seemed to be the improved possibilities for cross border promotion and advertising. Similarly, improved possibilities for cross border promotion and advertising are now available through the e-commerce directive for firms in regulated professions.
However, before the long run effects can be reaped, awareness of the existence of the Directive and of the new possibilities it offers, is crucial. We find indications of the need to further increase awareness of the Directive as not all firms are aware of the Directive or the new possibilities it creates.

We find indications that a rise in cross border trade does not always drive down mark-ups in the short run. The reason may be the presence of a ‘local bias’ which means that consumers typically prefer to buy from domestic firms rather than from foreign firms since they are “new” to distance buying and thus tend to rely on the proximity bias typical of offline shopping. Consequently, in the short run as cross border on-line trade begins, domestic firms, online as well as offline, do not necessarily need to lower prices as much in the face of foreign online competition. Within specific market segments and along border areas where linguistic and cultural differences are small, we may see stronger impacts on mark-ups from foreign online competition, even in the short run.

In the long run, however, as the ‘local bias’ may become less important, the downward pressure on mark-ups is expected to be stronger.

1.3. CONTRACTUAL OBLIGATIONS IN CONSUMER CONTRACTS MAY HINDER CROSS BORDER TRADE

Contractual obligations in consumer contracts are omitted from the country of origin principle. In turn, firms need to familiarise themselves with the contractual obligations in the country of destination on e.g. rights of cancellation, complaints and redress. The result may be less cross border activity. This concern is supported by firms’ own reaction to contractual obligations in consumer contracts being left out of the country of origin principle. 43% of the firms interviewed by Eurobarometer in 2006 indicated that they would increase cross border sales if contractual obligations were covered by the country of origin principle, cf. Figure 1.4.
The reason that contractual obligations in consumer contracts are omitted from the country of origin principle is the lack of harmonisation in this field. In the current study, we find indications that the market will increasingly be able to provide for necessary protection measures demanded by consumers lacking trust. If that is also the case when it comes to contractual obligations in consumer contracts, then abandoning this derogation could stimulate the internal market for information society services without deteriorating consumer trust in the longer run.
Chapter 2  THE IMPACT OF SPECIFIC PROVISIONS

In this chapter, we present our findings of the impact of the most significant, from an economic perspective, provisions of the Directive. We cover the limited liability provisions, those for e-contracts, information requirements provisions, and the establishment provision. Chapter 3 is dedicated to the country of origin principle.

In our analysis of the provisions in this chapter, we make use of information on the legal changes brought about by the provision, data on variables indicating an impact on firm or consumer behaviour, and results from firm interviews.

2.1. LIMITED LIABILITY PROVISIONS

Articles 12-14 in the Directive limit the liability for intermediary service providers where they act as mere conduits, caches or hosts of information.

The limited liability provisions have clarified the applicable legislation in this area. The provisions improve framework conditions for on-line intermediary firms when doing business within their country of establishment, and by way of the country of origin principle, the limited liability provisions encouraged than to engage in cross-border trade by offering their services across EU markets. For example, a conduit of information cannot be held automatically liable for linking to websites providing information of an illegal nature given that it has no information on this illegality.

The feedback from the expert group members on how the Directive has altered information society service framework conditions in their countries supports this view. Out of the 18 Member States that replied, 17 had no clear legislation in this area prior to the Directive, cf. Table 2.1.

<table>
<thead>
<tr>
<th>Prior to the transposition, did a specific legislation concerning liability for intermediaries exist?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
</tbody>
</table>

Note: The table shows that 17 out 18 Member States did not have specific legislation in place in the area of liability for intermediary service providers.
Source: Appendix B, question 11.

The response from intermediary service providers that we have talked to indicate that they also experience the benefits of articles 12-14.
Several intermediary service providers suggested that this provision is the single most important one in the directive for intermediaries, because it so clearly provides certainty in a crucial area where there was uncertainty before.

A consultation held by the British Department of Trade and Industry (DTI) supports this view.

If the intermediary service providers do in fact benefit so much from the Directive as suggested by talking to various stakeholders, we may expect to see a rise in cross border trade of such services as the provisions reduce the risk that ISPs would limit access to national sites only. This is evident from the fact that ISPs give access to sites across Europe. No specific data exist on this. We look at the number of new intermediary service providers, which we may expect to rise as legal certainty reduces business risk and expenses for legal counselling. Yet, the empirical evidence is mixed. We do see a significant rise in intermediary start-ups across the EU in the years 2004-2005 following the Directive compared to the number of start-ups in the entire EU economy, cf. Figure 2.1. However, this may also reflect a recovery back to normal start-up levels after years with very few start-ups following the dot-com crash around the year 2000.

![Figure 2.1: The number of start-ups of intermediary service providers](image)

Source: Calculations on the Amadeus database. We define intermediary service providers to lie in the NACE category 72.40. This is where we find firms like Google and Yahoo!

**Monitoring and new technology**

As demonstrated above, one of the main findings regarding the liability provisions is that they have brought certainty to a crucial area that was previously characterised by uncertainty.
Despite increased legal certainty, firm interviews suggest two potentially problematic aspects related to the provisions remain.

First, some firms still use resources to monitor their web pages, despite the fact that the Directive exempts them from this obligation. The provisions foresee that ISPs must assist when illegality is signalled to them. It follows that the provisions do not discourage them to put in safeguards against illegal sites but the key point is that the provisions do not put them under a legal obligation to monitor and track every request and response that they facilitate. Firm responses indicate that monitoring is still important to carry out.

Main points from firm interviews are summarized in the box below.

**Box 2.1: Case Study Responses on monitoring**

Many firm answers clearly supported the value of article 12-15 but signalled external factors that have a limiting effect on the provisions.

A Swedish based intermediary has, despite the agreements on renouncement of supplier liability, to some degree monitored their customers' web-pages in search for illegal material. This has been done in order to avoid the risk of becoming "...the company that unintentionally hosted the illicit web-page xxx..." To make clear that this was perceived a real threat the respondent discussed the case where another Swedish internet service provider was exposed by Swedish media as the company that passed on illicit material in connection to the crisis of the cartoons depicting Muhammad. The respondent assessed that the incident had been a disadvantage to the said company. The lesson he had drawn from the case was that even though a company is not automatically liable for the content of the web-pages they provide services for it is nevertheless necessary to guard against bad publicity.

In the words of the respondent: "If internet service providers are to be truly freed from responsibility under the Directive, it is necessary to ensure that the media and public are aware of the regulation, where the responsibility is placed and its implications. If not, the negative consequences of situations as described above will be a recurrent problem for companies." Hence, as the ECD allows the market force to determine the level of monitoring needed, it is not possible for the Internet intermediaries to entirely refrain from monitoring – however, the ECD acknowledges that systematic monitoring is not possible.

The respondent then added another example of problems arising in relation to intermediary services and intellectual property rights. In 2005 the Swedish "Anti-piracy organisation" - the main Swedish organisation working to ensure that intellectual property rights and copyrights are upheld - stormed the Swedish internet service provider called "Bahnhof" and impounded their servers in their hunt for illicit material protected by intellectual property rights. In the respondents words: "one would naturally do everything to avoid such a situation, not only because of bad publicity, but also because it is expensive as server capacity is reduced for
an extended period of time and further a case like this would be costly in terms of resources spent on external legal assistance – especially for SMEs who most often to not have this kind of resources in-house."

After much dispute, the Swedish Anti-pirate organisation and Bahnhof subsequently settled the case amongst themselves and the charges against Bahnhof was subsequently withdrawn.

One of the companies, a large merchant company, has experienced a growing pressure to monitor and react on illegal or damaging content from the media, charities (often children’s) and the national governments. This has meant that at a practical level the company has both automated take-down tools and human monitoring. Furthermore, the company has been part of government-lead coalition of local government, enforcement agencies, the Internet industry, and children’s charities in which the main deliverable was a document on how the industry could monitor and moderate its services. The company has felt a need to concede to pressure in defence of its image and reputation, but also because the company feels that it is "the right thing to do". However, as the company is now acting proactively in relation to the ECD regulation, worries about liabilities have surfaced. Faced with the reality that it is not possible to monitor everything, the representatives worry that their company risks being held liable for content (or content that the monitoring has missed) if they are more proactive.

Another point regarding the pressure to monitor that the same company pointed out was that the company felt it very differently from country to country: In some countries governments had a collaborative approach and the will to understand where the companies were coming from, whereas other countries are harsher and had attempted to force internet service providers into filtering content.

Another large ISS provider of marketplace services also uses resources to monitor the firms’ web pages, the reason being that there is a substantial risk, that any illegal information may damage the entire market. This is an example of what the Directive encourages by letting the market forces control the need for monitoring. By not imposing systematically full liability but requiring active help when illegal info is detected it encourages ISPs to invest in proportionate safeguards that are viable.

Customers will – especially when it comes to smaller, less-known companies - be hesitant to post their information online if they attach a certain level of insecurity to the site, that is, if the intermediary appears not to focus on what is it hosting. Another reason is that legal companies may fear bad publicity if they are perceived as being connected to illicit businesses. Therefore, it is necessary for the Internet intermediaries to use some resources to monitor the firm’s web pages, in order to be considered a credible company. On the other hand, the market is aware that it is impossible for the intermediary to monitor all content, but a certain level of preventive monitoring is expected by the market.

An example of the above-mentioned is a large ISS provider, who does not monitor their web-pages systematically, because this would not be viable (as recognised by the ECD), but do use filters and have made
other arrangements to fight illicit uses of the marketplace. In this respect it is enhanced by the respondent that the Directive allows the business to decide where they want to spend the available policing resources in such a way that they are used efficiently which is of immense importance to both the company itself, their users as well as potentially affected rights owners. Furthermore, it is noted by the respondent that with the Directive: “We are not held liable for any misjudgement we may make – our strategy therefore is to focus on the clear cut cases and remove obviously illegal material instead of spending time with the very complicated marginal cases. In this way the provisions also strengthen the on-line market; we can concentrate on what they are good at – being a marketplace and a good dealer.” This way of interpreting the ECD is what was sought to be achieved by the provisions, but some of the companies interpret this provision as being entirely freed from monitoring at all and only react when illicit material is detected on the website.

Source: Appendix C

Second, the possibility to include other enabling technologies creates insecurity about what type of products are protected by the limited liability of the Directive. E-commerce is constantly developing, and new ways of using the Internet, such as search engines, hyperlinking, and content aggregation are used more and more. As of today, national case law on hyperlinking, etc. is very diverse contributing to insecurity in the industry.

As important as article 12-14 seem to be to intermediary service providers, many of the firm interviews indicate that the protection provided by the articles should be extended to also cover intermediary service providers who provide hyperlinks, location tool, and content aggregation services. In contrast, others were of the perception that the Directive already included this type of services whereby they saw no need for changing or clarifying the Directive on this point.

However, as DTI often notes in their consultation study, the view on whether to extent the protection to also cover intermediary service providers who provide hyperlinks, location tool, and content aggregation services, depends very much on the type of firm asked. Intermediary services providers tend to support an extension whereas the rights-holders tend to oppose an extension. Main points on this area from firm interviews and from the DTI consultation are summarised in Box 2.2.

Box 2.2: Case Study Responses on extending article 12-14

One large intermediary puts it this way: “This is the most important provision. It has provided clarification of responsibilities for the information society service providers. However, it is a big mistake that the Directive does not include search engines, hyperlinking and content aggregation”. Another important player describes the situation the following way: “Areas such as hyperlinking, search engines and blogs are not included in the limited liabilities provisions of the Directive. This has caused
problems for us in cases of disputes over intellectual property rights, where it is clear that the IPR has been violated but it is unclear if the intermediary or the company placing the violating material on the webpage should pay the damage, or if it should be split between the parties. When it comes to hyperlinking and search engines it is clear, that if we had had limited liabilities - which would lead to increased legal security for us - it would not have been necessary for us to seek external legal assistance in cases of lawsuits.

As a worst case scenario of future difficulties if the limited liability provisions of the Directive will not include recent technological developments such as hyperlinking, search engines and blogs, a second representative of the company discussed users’ posting of blogs. In such cases, if blogs are not included in the limited liability provisions, the company would have to screen blogs for violations of IPR and copyright or harmful information, before appearing on the website, in order to avoid the risk of having to pay an eventual damage, as it is not clear who should pay the damage with respect to hyperlinking, search engines and blogs. In cases where violations occur, the company has to contact the client and point out the problematic areas, which have to be altered. After being altered the first time, the users’ blog will have to be sent to the responsible administration of the company once again, where the same procedure has to be repeated. Such communication would be very time-consuming and require a lot of administrative resources and financial costs for the company in order for the users to post a blog. Moreover, the respondent fears that this procedure may be harmful to the freedom of speech, as bloggers will be very conscious about what to post on their blog or even refrain from blogging out of fear that they might do something wrong.

One large merchant company however stated that the liability conditions are of crucial importance for the company because they have given it a much more certain position from which to defend it legally when assessing risks or when asked to monitor or remove content from the Web. The representatives were firm on the point that the ECD should not be changed at present, as a reopening of the ECD would run the risk of destabilising it. Instead they suggested that the ECD could use various soft law measures at the informal level to correct the ECD – for instance to ensure that e.g. hyperlinking and search engines are included.

A response from an intermediary service provider in the DTI consultation illustrates how many intermediary service providers appreciate the improved domestic framework conditions due to article 12-14:

“The implementation of the Electronic Commerce Directive in the UK has provided a successful framework for the development of vigorous competition by creating the legal certainty of limited liability for intermediaries. The importance of this legal certainty cannot be underestimated”; (DTI, 2006 p. 7).

The response continues focussing on extending article 12-14:

“Currently, the uncertain state of the law in the UK on liability in this area means that all ISPs and other providers of hyperlinks and location tool services face uncertain and unquantifiable risks. In particular, given that hyperlinks and search engines constitute some of the basic building blocks of the internet and facilitate in particular the navigation of the vast amount of information on the internet, providers of these services should also benefit from similar legal certainty.”

As can be seen from the above box, many of the interviewed companies worry that the ECD does not sufficiently state the liability status for providers of search engines, hyperlinking and the like. This concern has been a reality for Google in Britain, cf. Box 2.3.

Box 2.3: Limited liability provisions (art. 12-14): Google being sued in Britain

Google is currently facing a defamation suit in Great Britain that could have repercussions for Ireland’s attractiveness as a destination for online businesses. The search giant has been sued by London businessman Brian Retkin, who claims that the company is responsible for providing links to inaccurate or malicious information about him and his business posted anonymously on the Internet.

Irish legal observers, and Google’s Dublin based legal entity are watching the case unfold as internet service providers and online product providers such as Google have specific legal devices available to them under British defamation law and the EU’s e-commerce directive, whereas in Ireland the laws have not been updated to take account of the information revolution. Hence, if the plaintiff succeed in Britain the consequences in Ireland will be even greater.

Both the Irish and UK Regulations adopt a minimalist approach to implementing the E-Commerce Directive, which has been transposed into both Irish and UK law. The problem for search engines and other intermediaries is that the E-Commerce Directive does not go far enough. Under the Directive a limited immunity is given to three classes of intermediaries - caches, hosts, and mere conduits. This, however, leaves other internet intermediaries out in the cold. Search engines, providers of hyperlinks and content aggregators are analogous to hosts or mere conduits (they facilitate access to material but do not control it or have knowledge of its content) - but they do not enjoy comparable protection under the Directive.

Several European countries have decided that the Directive is too narrow - Austria, Hungary, Portugal and Spain, amongst others, have created additional protections for search engines. The European Commission has also encouraged Member States to extend protection to other internet intermediaries. The risk for Ireland is that we may become less attractive as a destination for these businesses if Irish law does not follow suit. The Defamation Bill 2006 should have provided an opportunity to consider this issue - but that Bill would not have changed the law in this area had it been enacted.

A Google spokesman would not comment on the specifics of the case. "The company would reiterate that is has no connection or ability to direct or influence the content of web pages which may be shown as links within any given set of search results." With Google linking to 11.5 billion web pages, potential financial damages in an Irish court could be staggering.

Source: TJ McIntyre – Barrister, Lecturer in the School of Law, University College Dublin, Consultant with Merrion Legal Solicitors, "Defamation, search engines and the E-Commerce Directive", Monday, July 02, 2007
2.2. E-CONTRACTS

Article 9.1 in the Directive states that Member States shall assure that contracts concluded by electronic means carry the same weight as ‘paper’ contracts. Prior to transposition of the Directive, 12 out of 18 Member States’ legislation in this area was unclear, cf. Table 2.2.

Table 2.2: Legal situation for e-contracts prior to the Directive

<table>
<thead>
<tr>
<th>Prior transposition of the Directive, did a contract concluded by electronic means have equivalent legal status as a ‘paper’ contract?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, the electronic contract had the same legal status as an “off-line” contact</td>
</tr>
<tr>
<td>There existed no specific law stating the status of an electronic contract</td>
</tr>
</tbody>
</table>

Note: The table shows that prior to the Directive 12 Member States did not have clear legislation about the legal status of an electronic contract.
Source: Appendix B, question 8.

The absence of legislation allowing firms to conclude a contract electronically may increase costs for all firms that do their business online.

As concluding contracts is part of a sale, the provision on electronic contracts affect firms’ marginal costs. Hence, transposition of the Directive will tend to reduce marginal costs of firms which will result in more competition, more sales, and lower prices in the longer run. In the shorter run before competition sets in and output expands, profits may rise instead.

Firm interviews confirm that not being able to conclude contracts electronically prior to the Directive implied higher costs and more legal uncertainty. An intermediary service provider suggests that while administrative costs of having to fill out offline contracts are down due to the Directive, the greatest source of higher costs was the imposition of the need for offline processes in a business environment focused on conducting tasks online. However, the actual use of e-contracts may vary across sectors.

Excerpts of firm responses are presented in Box 2.4.

Box 2.4: Case Study Responses on e-contracts

The majority of the business interviewed stated that using e-contracts is a natural and a necessary feature of running an online (information society service) business. As a consequence, it is generally agreed that the ECD has given the companies and the consumers a higher degree of security, by making electronic contracts as valid as contract in ink on paper.

A larger on-line retailer puts it this way: “E-contracts are vital for conduction of online commerce. Without
the Directive’s provisions we would still have used electronic contracts, but with a sense of insecurity. With the Directive a large amount of certainty has been provided for both companies and consumers.

And further according to a representative of a large on-line marketplace, the obligation that Member States shall assure that their legal systems allow contracts to be concluded by electronic means has freed the company from the risk that their clients doubted the legal validity and certainty of e-contracts. The importance of the provisions is further described the following way: E-contracts are crucial; without them our business would simply not function. The provisions on electronic contracts were clarifying and beneficial both for the company and its customers. And the mere fact that the EU is willing to formulate policies on electronic contract conclusion strengthens consumer trust in them and companies using the mode of contract conclusion.

A Swedish IT branch organisation emphasises that had the provisions ensuring legal certainty on electronic contracts not been in place Swedish companies would potentially hesitate to use the electronic contracts in some transactions, since they would tend to feel more insecure about the legal effect of the electronic contracts. Further it was the opinion of the respondent that some companies and consumers are still potentially insecure about using electronic contracts for concluding larger transactions, but the overall perception was that the Directive has lead to positive perspectives for the future.

An airline company that sells 50% of the tickets on-line enhances the importance of the provisions in the tourism/ travel industry. The representative of the company states that the overall trend in the industry is that an increasing part of the tickets are sold on-line. The company – and companies in general within the industry - will experience lower financial expenses due to the decreased number of ticket offices and it will reduce the need for human involvement, as the whole process would go through the automatic electronic system.

Source: Appendix C.

2.3. INFORMATION REQUIREMENT PROVISIONS

The Directive reduces risks for consumers trading online. It does so by increasing the mandatory information a firm must provide on its identity and prices in article 5, and by providing a common legal framework across the EU Member States on commercial communication and promotional offers and games in article 6. This is demonstrated in Table 2.3.
Table 2.3: Article 5 and 6 on information requirements

<table>
<thead>
<tr>
<th>Article 5: Has the transposition of the Directive led to an increase in the amount of information obligations on firm identify and prices?</th>
<th>Article 6: Has the Directive led to a legal framework where there was none before on commercial communication and promotional offers?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>16-18</td>
</tr>
<tr>
<td>No</td>
<td>0-2</td>
</tr>
</tbody>
</table>

Note: The status in 18 countries is included. Articles 5 and 6 contain sub-articles. When the table reveals that 16-18 countries have answered yes to the articles 5-questions instead of a single number, it is because the response varies between 16 and 18 depending on the sub-article.

Source: Appendix B.

Information on firm identity and place of registration makes it easier for consumers to make complaints if they feel mistreated. According to the Director of the Danish consumer organisation, ECC, the largest effects of the Directive are to be found within the area of demand enhancing provisions:

“The information obligations […] may also enhance consumers' possibilities of complaining since they can for example write a physical letter of complaint and/or have a lawyer to meet up at the company’s address in case of a larger conflict”.

In order to increase the chances of a complaint leading to a positive outcome, there is a need for effective enforcement of the information requirements.

The information requirements if enforced may firstly increase complaints. In the longer run, efficient enforcement could help reduce the number of complaints relative to e-commerce sales, due to a preventive effect. While the first hypothesis may to some extent be confirmed comparing the number of complaints with e-commerce sales, the latter can not at this point in time, cf. Figure 2.2.
Signalling credibility

Information is not only useful when seeking redress. Higher information standards for online firms (as illustrated in Table 2.3 above) may signal credibility and trustworthiness of e-commerce and increase consumer confidence. Interviews with firms and consumer organisations suggest the same, cf. Box 2.5.

Box 2.5: Case Study Responses to the provisions on information requirements

“*The provisions constitute good business practices and are common sense*”. Along these lines commented, a 12 employee intermediary service provider out of UK, on the information provisions in the Directive. Further it was pointed out by the representative of the company that they, already prior to transposition of the Directive, conformed to the information requirements. And further: “*The obligations that are meant to improve and ensure customer security – for instance clear provision of price information, contract conclusion, and the company details – we see as natural parts of good business practice*”.

An online publisher and host of chat-rooms, stresses the fact that credibility and trustworthiness is of immense importance in order to be perceived as a reliable player on the market. For that reason the business conformed to the information requirements prior to transposition of the Directive. In turn, information requirements are laid down in tough codes of conducts that far exceeds the information requirements laid down in the Directive.

The view that the provisions on information requirements can be described as good business practice that
give rise to increased consumer confidence, which again raises the consumers’ willingness to shop online, is backed by several consumer organizations. According to the ECC Germany, the provisions on information obligation of the ECD play an important role in the consumers’ decision to purchase via a homepage, as the explicit information of the company itself, price and technical steps for contract conclusion are decisive for the consumers’ willingness to do business. Or in the words of the respondent: “The consumers want to be well informed about the company they purchase from, and who stands behind the products they buy. Without having relevant basic information the consumers will increasingly avoid purchasing from the company and search for the same products in other companies which supply more information. Thus, article 5 of the Directive has increased consumer confidence.”

The Director of the Danish consumer organisation, ECC, believes the largest effects of the Directive are to be found within the area of demand enhancing provisions. The information obligations give the consumer increased confidence in terms of knowing that there is more behind a company than just an e-mail address.

The representative of a UK consumer organisation shows the critical importance of Article 5 by showing the lack of the resemblance between online and off-line shopping, and states: “If consumers are once tricked by an online company they will not go back to that particular shop but instead look for alternatives. The more people shop online without problems, the more confident they get. However, as soon they encounter problems in online shopping, they either stop buying online or change online trader.”

Continued trust in the on-line business naturally calls for an efficient enforcement authority.

And as a large UK retailer points out: “The enforcement authorities concentrate more control on the larger companies, while the smaller ones are checked less frequently. Thus the potential lack of information on the part of smaller companies could lead to the reduction of trust among the customers in general, where one bad player would be able to ruin the business for the rest.”

Source: Appendix C

Nevertheless, adhering to the information requirements are not the only way for a firm to signal that it is credible and trustworthy, and thereby distinguish itself from the ‘rotten apples’ of e-commerce. Additional signals may take the form of clearly visible contact information that orders are immediately confirmed, that there is a money-back-guarantee (greater than that required by law), or the display of positive customer reviews on firms’ webpage, to mention a few.

Box 2.6: A substitute for signals

Well established firms may not need to provide even basic pieces of information in order to attract business. One reason might be that they are already known by consumers, which means that consumers believe that the firm will be around tomorrow.

Following transposition of the Directive, Google found, much to its surprise that its information practices did not live up to the requirements in the Directive. For example, Google did not provide enough information on the company, on the prices, and on commercial communication. The reason is that Google is a US based company, and American legislation does not require a company to display some of the information laid down in the Directive: an example being the company’s place of registration. Upgrading the information conforming to the requirements in the Directive, did not, however, increase demand for Google’s services in any way.

Source: Appendix C.

The point is that customers know that both credible firms exist online and that ‘rotten apples’ exit online. Customers only want to buy from the credible firms. And firms know that. So an ‘honest’ firm responds to the demand from customers by signalling that it is
indeed one of the honest or credible firms, and not one of the ‘rotten apples’. Firms are right to provide signals to its potential customers. Surveys show that customers regard potential fraud a major barrier for purchasing online, cf. Table 2.4.

Table 2.4: Barriers for consumers purchasing online

| Percentage of respondents who have not purchased online during the last 12 months due to... |
|---------------------------------|-------------------------|
| Worries about giving credit card details over the internet | 38 % |
| Trust concerns about receiving or returning goods, redress/complaint concerns | 21 % |

Source: Eurostat

Consumers show an even stronger fear of purchasing online from a firm located in another EU Member State, cf. Table 2.5.

Table 2.5: Barriers for consumers purchasing online in another Member State

<table>
<thead>
<tr>
<th>To what extent do you agree or disagree with this: Compared to providers located in our own Member State, when purchasing from providers located in EU countries...</th>
<th>Percentage of respondents agreeing</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is harder to resolve problems such as complaints, returns, price reductions, guarantees, etc.</td>
<td>71%</td>
</tr>
<tr>
<td>There is a greater risk of falling victim of a scam or fraud</td>
<td>68%</td>
</tr>
<tr>
<td>There is a greater chance of having delivery problems with goods or services</td>
<td>66%</td>
</tr>
<tr>
<td>There are more problems returning a product bought by internet, phone or post within the cooling-off period</td>
<td>65%</td>
</tr>
</tbody>
</table>

Note: Interviews were conducted face-to-face in people’s homes, in their national language between February 20 and March 24, 2006, in the EU25 countries. More than two thirds of the Europeans think there are more potential problems when making cross border purchases, the main problem being dealing with complaints (71%)
Source: Flash Eurobarometer: Consumer Protection in the Internal Market

Tough competition may lead firms to provide better customer service, and signal that to consumers. Consumers may also demand more advanced security services as the ways of the fraudsters or ‘rotten apples’ also develop. Both suggest that the information requirements obligations laid down in the Directive may not be satisfactory for consumers in the future, although proving a sound level of ‘minimum requirements’.

In its report on consumer complaints in 2005, the European Consumer Centre (2006) concludes that fraudsters continuously develop new ways of deceiving consumers. For this reason alone, consumers’ demand for information about a company may change over time. Information which seven years ago around the making of the Directive might have signalled credibility on the part of the firm may not be enough for the consumer today.
This may be even more right when considering that several of the barriers for online trade as perceived by consumers (Table 2.4 and Table 2.5) are outside the scope of the Directive. One example is problems when receiving or returning goods.

The case of the online shopping security company buySafe is an example of a company responding to consumers evolving demand for better information and more security. The company provides a trust signal to help consumers know they are dealing with a reliable and trusted merchant, and then BuySafe adopts the risk themselves by guaranteeing a payment to the consumers if the merchant turns out to be less reliable than promised. As Steve Woda, buySafe’s founder explains it: “Signals are credible only when they are hard to get and costly – we make our signal credible by rigorously screening the merchants and then putting money on the line by guaranteeing the seller will deliver on the promises they make the shopper”. BuySafe is a US firm and is not obligated to follow the Directive, nor is it operating within the EU. However, the case merely illustrates how the market may provide for an increasing and changing demand for trust services in the future.

**Box 2.7: BuySafe and lemon cars**

Every year, the US Federal Trade Commission receives numerous internet auction fraud complaints. The complaints generally deal with late shipments, no shipments, or shipments of products that are not of the same quality as advertised. By 2004, for instance, 74% of Tiffany items sold on eBay was fakes.

The reason internet auction fraud is widespread is due to information asymmetry between buyer and seller, which may have detrimental effects on the functioning of markets. The first to formally describe the problems arising from information asymmetry was Akerlof. He illustrated his point using the market for used cars. While a seller of a used car knows if her car is a lemon or a peach, the buyer does not; the buyer only knows that both lemons and peaches are around. The buyer’s willingness to pay will therefore approach the average value for lemons and peaches. However, a seller of a peach car will not want to sell in a market were she is offered less of what her peach car is actually worth.

Pretty soon, as more and more peaches are withheld from sale, the cars available in the market will be predominantly lemons. The average value of the cars available in the market will drop. Akerlof suggested that the information asymmetry may ultimately cause the collapse of the market for used cars as no sellers of peach cars will want to sell. Hence, the market for peach cars may brake down.

Improving consumer information will hinder the market collapse and increase the price that the seller can get for a peach car.

One way of realigning the information asymmetry between seller and buyer in an online auction, is a voluntary form of mutual satisfaction rating. Here buyers and sellers rate each other’s performance after a sale, allowing a reputational history to evolve. However, the efficacy of these measures is demonstrably less than perfect. Some of the problems with feedback-based rating systems and reputation-based systems can be fear of reprisal and deliberate manipulation of ratings.

It is therefore both possible and desirable to develop a rating system that will do a better job of providing consumers with more information about the product for sale. BuySAFE is an online shopping security company that provides an independent rating service which reduces risk resulting form the possibility of various forms of internet fraud. The advantage with buySAFE is twofold. They provide a strong trust signal to help shoppers know they are dealing with reliable and trusted merchants and they back up their brand.

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3 The story of buySafe as reported here is taken from Clemons (recent).
promise to buyers with a bond that guarantees all the terms of sale. This increases consumers information about the quality of the product (whether it is a ‘peach’ or a ‘lemon’), thereby increasing buyers willingness to pay ‘peach’-prices for ‘peach’-goods, even from unknown sellers. This will attract sellers of peaches to the market thereby restoring (or fuelling) the market for peaches.

Source: Clemons (recent).

2.4. THE ESTABLISHMENT PROVISION

Article 4.1 in the Directive prohibits Member States from subjected the taking up and pursuit of the activity of an information society service provider to prior authorisation.

The need for an authorisation in each Member State where a firm wants to establish it self would serve as a barrier for starting up. Only two out of the seventeen Member States for which we have information about their legal practices prior to the Directive, stated that they required authorisation, cf. Table 2.6.

Table 2.6: Legal situation for establishment prior to the Directive

<table>
<thead>
<tr>
<th>Prior to transposition of the Directive, were there mandatory authorisation requirements applicable to information society services?</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, there were mandatory authorisation requirements applicable to information society services</td>
<td>2</td>
<td>17</td>
</tr>
<tr>
<td>No, there were not mandatory authorisation requirements applicable to information society services</td>
<td>17</td>
<td>2</td>
</tr>
</tbody>
</table>

Note: The table shows that prior to the Directive 17 Member States did not require an authorisation for the taking up or pursuit of information society services.

Source: Appendix B, question 1.

While this provision has not led to a change in procedure in most Member States, it nevertheless provides a secure legal framework in a forward looking perspective. Without this provision it may be the case that some Member States in the future would decide to impose such a requirement. Indeed, certain interested parties could use the examples of fraud above to "require" establishment authorisations.

In turn, the establishment provision is a good and sound provision for creating a well functioning internal market, and it makes it impossible for countries to erect future barriers in this area.

In addition, the establishment provision allows national authorities to classify incoming cross border services as online services thereby allowing the cross border firm not to file for authorisations applicable for the similar service provided in the offline market. For instance,
a firm providing cross border auction services online does not need to acquire an authorisation applying for offline auction firms in the country of destination, cf. Box 2.8.

Box 2.8: Case Study Responses to the establishment provisions

The establishment provisions state that Member States are not allowed to insist on authorisation schemes or other similar licensing agreements prior to starting up business providing information society services.

It was generally the impression of the respondents that they had not been met by any such requirements prior to transposition of the Directive – even though some were indeed established prior to the transposition of the Directive. Further, it was emphasised by a number of respondents that the business would have launched services cross-border despite the existence of the authorisation provisions before the transposition of the ECD, but, had these provisions not been in place (i.e., had the ECD not been there) it could have had an impact on the business. Hence, the ECD has made it easier for companies to launch cross-border trade.

This is formulated in the following way by the representative of a large computer technology corporation. We would have set up business in other MS regardless of potential establishment provision. This would be possible for us as a firm because of the large amount of resources at our disposal, but it would have incurred significant cost in doing so. Further, the respondent noted that authorisation schemes or similar licensing agreements would be very prohibitive for small and medium sized enterprises wishing to set up business, as they would have difficulty in working out how to engage these legal barriers. Moreover it was mentioned that the respondent knew of a number of companies that, prior to the Directive, had spent resources on analysing which country would be best suited for new offices for online business. Accordingly, the respondents found that the Directive had made the internal market more encompassing in this respect.

The representative of a large German based marketplace describes the provisions as follows: The absence of the Directive’s provisions on this area would have led to a significant slow down in establishment of new subsidiaries in the different Member States. Further, the Directive has reduced the time and resources spent on entering new market.

Another large UK based intermediary pointed out that the directive’s regulation that MS are not allowed to insist on authorisation schemes lowered the company’s costs of investing in other countries. If a licensing system had been in place, the company would probably have rolled out fewer cross-border sites and they would probably have done it at a slower pace due to the extra time spent on familiarising themselves with the legal set-up in the countries in question. Thus, the search costs of investing in other countries would have increased as a direct effect of a licensing system, which would have been sunk costs (costs before revenue).

This view is shared by the respondent of another large provider of intermediary services, who states: Without these provisions the establishment of new offices would require more financial and time costs and more
people involved. This would lead to a more centralised approach, where we would probably hesitate to open new offices and would coordinate business from few centres.

The representative of a branch organisation assesses the provisions the following way: Any bureaucracy related to establishing a company constitutes a barrier in general. Potential authorisation schemes or similar arrangements would have a negative impact on companies' business strategies.

Source: Appendix C
Chapter 3  COUNTRY OF ORIGIN AND THE IMPACT ON PRICES AND PRODUCTIVITY

The country of origin principle of the Directive is a core principle of the Directive. It seeks to remove barriers to the free movement of information society services thereby stimulating cross-border on-line services. It does so by guaranteeing providers of information society services that for certain categories of rules co-ordinated by the Directive they are subject solely to the law of the Member State in which the service provider is established. The principle thus gives the suppliers the possibility to provide their services all over Europe while only adhering to one set of rules instead of different rules in different Member States.

We have tried to summarise the differences in legal framework conditions between countries in a single numerical index for each country. The index is bounded by zero and unity. If a country scores a value of one, it means that firms in that country will experience different legislation in all other countries. If a country scores a value of zero, it means that its own legislation applies in all other countries. This heterogeneity index is presented in Figure 3.1.

Figure 3.1: Level of barriers due to legal heterogeneity in areas covered by the Directive

The figure shows that the countries maintained a fairly high level of legal heterogeneity before the Directive. Following transposition of the Directive, the index approaches zero as the country of origin principle by definition produces a value of zero. This is because the country of origin principle implies that the countries’ own legislation applies in every other Member State. The index is not exactly zero as the areas covered by derogations from the country of origin principle remain unchanged where they are not harmonised. All in all, the Directive has produced a lower level of legal heterogeneity between Member States.
We now look for indications of the improved legal framework having an impact on firm behaviour.

3.1. GOODS AND SERVICES SUITABLE FOR ONLINE SELLING

Because of the country of origin principle, firms no longer have to spend time and resources getting acquainted with all the relevant foreign legislation in order to engage in cross border activities. For those areas of laws covered by the country of origin principle, they have to adhere to the legislation in their own country only. As the cost of getting acquainted with foreign legislation is a prerequisite for engaging in cross border activities, we say it is primarily a fixed cost rather than a variable cost. We say it is a fixed cost even though it may be necessary to pay it more than once in order to follow the developments in foreign legislation. The point is that the costs are not directly affected by producing and distributing the good or service cross border as it must be held even without any cross border sales. In that sense, it may be compared to paying rent which is a fixed cost.

Hence, the Directive reduces fixed costs leading to more firms being able to cover their fixed costs when engaging in cross border sales. In turn, we expect to see more cross border trade and perhaps more firms starting up with the purpose of engaging in cross border trade.

The intermediary service providers and firms supplying online goods or services suitable for cross border online trading benefit the most from the country of origin principle. Online firms selling goods or services less suitable for cross border trade ought to, on the other hand, not benefit much from the country of origin principle.

The reason is a difference in how significant the costs of getting acquainted with foreign legislation are compared to other costs. For the group of firms consisting of intermediary service providers and firms supplying online goods or services suitable for cross border online trading, few other barriers exists for cross border trade. Hence, for some of these firms, the reduction in fixed costs may just be the difference between making a profit or not when engaging in cross border sales. The group of online firms selling goods or services less suitable for cross border trade encounters, on the other hand, several other barriers and costs such as expensive transport of a bulky or fragile good. They may not be able to compete in a foreign market for that reason, regardless of the level of fixed costs. So even when legal costs are no longer necessary in order to be able to sell cross border, it may not affect the decision of this group of firms to engage in cross border trade or not.

Intermediate service providers and certain goods and service online sellers ‘score high’ on three characteristics that we find to be important drivers of cross border sales. First, ‘price-per-kilo’ is important. The lower the ratio the more suitable the good (or service) is for cross border trade; and the higher the ratio, the more of a barrier this characteristic constitutes.
The reason is that the potential price gains from a consumer point of view from sourcing purchases outside the resident country tend to be eaten up if transportation is costly relative to the price of the good. Second, the ability of the good to endure long transportation is important. If the good is fragile and therefore easily breaks, it is less suitable for online cross border trade than a more durable good. Third, trust in the good or service is important. Distance sales are based upon the concept that customers have trust in the good or service as they cannot control it physically before purchase: this implies that well-known products with a wide reputation for a good price-quality ratio are suitable for online cross border sales (‘branded products’).

Empirical evidence broadly supports these three characteristics as being important. Books top the list of most surveys of E-commerce and are at the same time characterised as being (1) relatively inexpensive per kilo, (2) even a paperback lasts many years and escapes non-damaged from transportation and finally (3) a new P.D. James crime novel is completely identical across the globe. We find that books are overrepresented by more than 10 times in e-commerce sales relative to its economic importance compared to for example grocery deliveries, auto parts etc., cf. Figure 3.2.

Figure 3.2: Relative incidence of internet sales

Source: AC-Nielsen, Denmarks Statistic and own calculations

Much the same picture emerges according to a recent survey of the most popular goods and services purchased online, cf. Table 3.1.
Table 3.1: Top10 goods and services bought online in Europe

<table>
<thead>
<tr>
<th>Good/service</th>
<th>Bought online</th>
</tr>
</thead>
<tbody>
<tr>
<td>Travel tickets</td>
<td>52%</td>
</tr>
<tr>
<td>Holidays</td>
<td>38%</td>
</tr>
<tr>
<td>Books</td>
<td>37%</td>
</tr>
<tr>
<td>Concert/Festival tickets</td>
<td>37%</td>
</tr>
<tr>
<td>Clothes</td>
<td>31%</td>
</tr>
<tr>
<td>Electrical goods</td>
<td>30%</td>
</tr>
<tr>
<td>CDs</td>
<td>25%</td>
</tr>
<tr>
<td>DVDs</td>
<td>22%</td>
</tr>
<tr>
<td>Theatre/Cinema tickets</td>
<td>21%</td>
</tr>
<tr>
<td>Music downloads</td>
<td>20%</td>
</tr>
<tr>
<td>Insurance</td>
<td>14%</td>
</tr>
<tr>
<td>Toys</td>
<td>13%</td>
</tr>
</tbody>
</table>

Source: E-business W@tech (survey 2006)

All three of the characteristics (low weight, durability and brand selling) apply to intermediary service providers and to the firms selling the goods and services above.

3.2. CROSS BORDER ACTIVITIES AND FIRM START UPS

Lower fixed costs associated with cross border sales may make it profitable for more firms to take up cross border sales. Interviews with firms suggest that if the future prospects of the market are so promising as is the case for many information society services, some firms will eventually enter foreign markets, country of origin principle or not. Other firm responses suggest that they would not have engaged in cross border trade without the Directive, maybe by avoiding the smaller foreign markets (Member States). This is elaborated on in Box 3.1.

Box 3.1: Case Study Responses to the Country of Origin Principle

Firm evidence is mixed. Some of the interviewed companies state that the Country of Origin Principle has not been a decisive factor for the decision of entering a new market. Most companies state that they would have done it anyway, albeit at a slower pace. This has to do with the fact that the companies cannot afford to not act aggressively in a growth market. The same is true for SMEs, but they tend to pick fewer markets to enter at a time than larger companies. This is addressed later in this chapter.

One company, a large retailer, mentioned that they would have launched cross-border e-trade had the Directive not been in place, due to the fact that when the company opens offline retail stores in other Member States, they also want to launch a website in the country in question. However, they do acknowledge the fact that the introduction of the Country of Origin Principle has facilitated a smoother
entering of foreign markets.

However, the Country of Origin Principle has according to other firms indeed facilitated the decision of entering into a new market by making the process of entering new markets easier.

The following examples illustrates this point:

According to a large internet intermediary, they would have dedicated resources to launching cross-border trade and websites in other Member States even if the Country of Origin Principle had not been in place. This is due to the fact that the company has a global structure and a global strategy and thereby would have decided to expand across borders regardless of the presence of the Directive. However, the company does acknowledge that the absence of the Country of Origin Principle would have been a financial burden to the company, for instance in terms of increased search costs.

According to another large internet intermediary, the Directive’s provisions regarding the Country of Origin Principle helped in entering new markets, which is now much easier and faster than it was prior to the provision. This is due to the fact that the company now only has to be familiar with the home country law.

Another intermediary states that had the ECD not been in place, the company would probably have launched less cross-border trade as they put a lot of time and money in the pre-launch phase, and they would not want to make it more costly by spending time and money familiarising themselves with host country law.

Along the same lines, a large online retailers’ department in Germany noted that before the introduction of the ECD it was harder and more expensive to offer services as companies had to adapt their services to a new and different national legal system each time they entered into business in a new country. As a consequence, the company would choose to enter larger markets, e.g. France as opposed to Belgium, because resources spent on familiarising themselves with the national legislation would be of a similar size in each country, but the subsequent profit would potentially be much larger in France than in Belgium. Because the ECD has reduced the costs of and streamlined the procedures for entering new markets it is especially beneficial when entering smaller markets.

One of the small companies with 12 employees stated that the internal market clause will make access to foreign markets less burdensome as less research on foreign legislation will have to be conducted prior to engaging in cross border trade. However, the company also states that the language barrier constitutes the largest barriers, which was also the case prior to the Directive.

One large merchant company stated that prior to the transposition of the Country of Origin Principle, they would have avoided certain countries, such as e.g. Belgium, where the expected profits were outnumbered by the costs of familiarising themselves with the national legislation.

Source: Appendix C
We now turn to actual indicators of the impact of the country of origin principle on cross border trade and firm start-up. Few statistics exists on cross border specific goods or services suitable for online trade. However, we have been able to gather information on the number of languages offered on web pages from online traders to see how many countries, approximated by languages, they seek to serve. We find no significant change between 2002 and 2007 in the number of languages offered. 76% of the firms covered offered just their native language in 2002 while almost the same percentage namely 77% of the same firms offered their native language only in 2007, cf. Figure 3.3a. Moreover, we fail to find a rising share of firms offering three or more languages when looking at the firms offering more than just their native language, cf. Figure 3.3b.

Figure 3.3a, b: Number of languages offered by online firms, 2002 and 2007.

Note: Figure 3.4a (the one to the left) shows the share of web sites offering just one language, or two or more languages. Figure 3.4b shows that of the firms offering two or more languages, 65% offered two languages in 2007 while 35% offered three or more languages.

Source: For 2002: “Realities of the European Online Marketplace”. A cross border e-commerce project by the European Consumer Centre’s Network. Researchers visited a number of 262 websites to identify among other things, the number of languages they offered. In 2007, Copenhagen Economics repeated the exercise and revisited the same websites. 55 of which did not exist anymore.

We have also looked for an impact of the Directive in the trade statistics for books, a suitable good for online trade. We are not immediately able to identify the impact of the Directive in the years after 2002 when comparing the development in imports and exports from and to EU27 with imports and exports from and to the rest of the world. We would expect to see intra EU imports and export rise more than extra EU imports and export, but we do not, cf. Figure 3.4.
Study on The Economic Impact of the Electronic Commerce Directive

Figure 3.4: Trade in printed books, Newspapers, etc., EU27

Note: The graphs show the trade flows of the EU27 countries, for the category books, newspapers, etc. both within the EU and with the rest of the world. Given the fact that we cannot separate the share of online trade from offline, we will not produce more reliable results by better modelling the trade developments. It is simply necessary to possess more precise measures of what we want to know more about: online cross border trade.
Source: Eurostat Database.

This does not necessarily mean that there have been no developments in online cross border sales of books which may be linked to the Directive. It may merely reflect the fact that we are not able to distinguish online from offline cross border sales.

Very little data exists on cross border sales in services and none exists on a much disaggregated level and split into online and offline sales. We do have some data on online advertising, which is an indicator of online cross border activity. This indicator may in fact suggest that the country of origin principle have boosted online advertising as it has risen more after transposition of the Directive in 2002 compared to the years prior to transposition of the Directive, cf. Figure 3.5.
Firm start ups may also be stimulated by the principle of country of origin and the Directive. Again, data are not able to distinguish between offline and online firms. We can only look at both types of firms together, for different sectors. We find that start ups have actually decreased since 2002, the year of transposition of the Directive, cf. Figure 3.6. We interpret this to be a symptom of consolidation. For example, publishing has experienced a decline in start ups since the beginning of the 1990es.

Figure 3.6: Firm start-ups, selected sectors
Remember that a similar figure for start-ups of intermediary service providers in Chapter 2 demonstrated a rise in start ups among intermediary service providers following transposition of the Directive, which we suggested could be partly due to the Directive.

The lack of solid evidence of a significant rise in cross border trade, although partly reflecting the inability to find data on information society providers only, could also suggest that while reducing legal barriers for cross border trade, the country of origin principle addresses but one out of several possible reasons for a firm not to engage in cross border trade. Other reasons exist. In a survey on retailer’s view on barriers to cross border trade, 61% answered that the risk of fraud and receiving payment (insecurity of transactions) were an obstacle keeping them from engaging in cross border trade of which e-commerce is the vehicle, cf. Table 3.2.

### Table 3.2: Obstacles for cross border trade, in order of perceived importance

<table>
<thead>
<tr>
<th>Practical barriers to cross-border trade as perceived by the retailers</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insecurity of transactions</td>
<td>61</td>
</tr>
<tr>
<td>Different national fiscal regulations</td>
<td>58</td>
</tr>
<tr>
<td>Difficulty in resolving complaints</td>
<td>57</td>
</tr>
<tr>
<td>Differences in national laws</td>
<td>55</td>
</tr>
<tr>
<td>Extra costs arising from cross-border delivery</td>
<td>51</td>
</tr>
<tr>
<td>Costs arising from language differences</td>
<td>43</td>
</tr>
</tbody>
</table>

*Source: Flash Eurobarometer “Business Attitudes Towards Cross-Border Sales and Consumer Protection” 2006*

Interestingly, most of the barriers in Table 3.2 are covered by the Directive, except for ‘Differences in national laws’. This supports the notion that barriers exists beyond the scope of the Directive, which help explaining why not all firms take up cross border trade in several EU Member States.
3.3. SMALL AND LARGE FIRMS

Before the Directive, small firms needed to acquire the same amount of information about foreign legislation as large firms in order to engage safely in cross border trade. In turn, the size of the fixed costs was likely to be independent of firm size. This implies that small firms’ costs will have dropped relatively more, compared to total costs, than is the case for large firms. This means that small firms should benefit more from the country of origin principle than should large firms. This view is supported by firm interviews in Box 3.2.

Box 3.2: Case Study Responses to the Country of Origin Principle

As previously mentioned, before the country of origin principle larger firms often found ways to overcome the increased costs related with familiarising themselves with the national legislation in the countries they were targeting. They did so because they often had – and still have – a global strategy. As previously mentioned, one of the large internet intermediaries stated:

"We would have dedicated resources to launching cross-border trade and websites in other Member States even if the Country of Origin Principle had not been in place. This is due to the fact that we have a global structure and a global strategy and thereby would have decided to expand across borders regardless of the presence of the ECD."

And a large software producer stated:

"We would have launched cross border trade had the Country of Origin Principle not been in place, which is due to the fact that we have access to the resources needed to engage in the necessary legal and risk analyses. However, we do acknowledge that cross-border trade would have been difficult and expensive to achieve as the legislation of every single country before the country of origin principle would have had to be treated individually."

The smaller companies, on the other hand, had to meet the same amount of differences in legislation as the larger companies before the introduction of the Country of Origin Principle. However, they do not have the same kind of resources to familiarise themselves with the legal framework in other countries. The following statements support this:

One of the large companies stated that SMEs had benefited more from the transposition of the Country of Origin Principle, as they would probably have hesitated – or even given up – on starting up cross border trade in another country without the presence of the Internal Market Clause. This is due to the fact that it would have required a substantial amount of financial and human resources to do so prior to the Country of Origin principle, and SMEs often lack this kind of resources.

As previously mentioned, a small company stated that the internal market clause will make access to
foreign markets less burdensome as less research on foreign legislation will have to be conducted prior to engaging in cross border trade.

Source: Appendix C

Against this stands the fact that small firms experience other barriers to trade that large firms do not experience. These other barriers could be smaller budgets for advertising, lack of competencies in ICT knowledge, lack of own invoicing department, and lack of adequate financial and personnel resources. The latter includes lack of language competencies, which was singled out by a small firm as the most prominent of all barriers to cross border trade4. The consequence is that even though small firms experience a drop in fixed costs for entering into cross border activities, this drop may not be sufficient for cross border trade to be profitable as large costs remain. This is illustrated in Box 3.3

Box 3.3: Fixed costs and entering into cross border trade

A firm needs to be able to cover its fixed costs with the income it makes from selling its good or services. This implies that the point of production on the average cost (AC) curve of the firm (which includes variables and fixed costs) must be lower or equal to the price. If the average costs equal price, the firm is making zero economic profit. This is illustrated in Figure A, where average fixed costs drop due to country of origin principle. For the firm in Figure A it is now profitable to enter the market for cross border trade. It was not profitable for the firm prior to the country of origin principle.

In Figure B, the average costs are above the price even after the cost reduction due to the country of origin principle. Therefore, the firm in Figure B will not enter into cross border trade.

Figure A: Profitable to enter new market

Figure B: Not profitable to enter new market

Source: Varian (1993)

4 See the interview with a UK firm in appendix C.
The empirical evidence indicates that small firms tend to have less cross border activity than large firms, cf. Figure 3.7.

**Figure 3.7: Intensity of cross border activities depending on firm size**

<table>
<thead>
<tr>
<th>Nr of employees</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 to 9</td>
<td>5</td>
</tr>
<tr>
<td>10 to 49</td>
<td>10</td>
</tr>
<tr>
<td>50 to 249</td>
<td>15</td>
</tr>
<tr>
<td>250+</td>
<td>20</td>
</tr>
</tbody>
</table>

Note: the graph shows the share of turnover generated by cross border activities, in the total turnover, differentiated by the size of the company

Source: BISER “Business Enterprise in the Information Society—the Regional Dimension” 2001

For the same reasons that a small firm will tend to engage less in cross border activities compared to a large firm (e.g. lack of ICT and linguistic competencies or a smaller advertising budget), a small firm that do actually sell cross border tend to focus on just a single country at a time, cf. Figure 3.8.
Figure 3.8: Share of small and large firms than sell cross border to just one foreign country

Note: The figure shows that out of the firms that sell cross border, a large share of small firms compared to large firms sell to just one other foreign country. The figures are for all cross border selling, both online and offline. Source: Flash Eurobarometer-Attitudes Towards Cross Border Sales 2006

The difference between small and large firms when it comes to cross border activities indicates, however, that there is a potential for smaller firms to engage more in cross border activities, and that by providing a secure legal framework for cross border trade, the country of origin principle paves the way for smaller firms to benefit in the future.

3.4. PRICES AND PRODUCTIVITY

We expect more cross border sales to increase competition driving down prices in the local markets. However, cross border sales from online firms compete with domestic online firms who enjoy the advantage of a ‘local bias’. This is illustrated in Figure 3.9 showing how firms sell more online in the region they are situated in than they do to the rest of the country. Hence, differences in legislation across countries are not at all the only barriers for cross border activities.
The 'local bias' implies that the domestic firms, online as well as offline, enjoy some monopoly power over foreign online firms selling cross border. The bias is probably stronger for offline firms. Many people have an ‘offline bias’ because they like to purchase goods or services physically to be able to better assess the quality, or they appreciate the interaction with the sales person.

What does this imply for prices? It suggests that the overall price on the market may not be that much affected by increasing competition from foreign online cross border sales. This is due to the 'local bias' and the 'offline bias'. Domestic online firms are protected by the 'local bias'. When facing foreign online competition, local online firms may therefore not want to engage fiercely in price competition because fighting for a few consumers that are not locally biased may not be worth cutting prices for.

Offline domestic firms are protected by the ‘local bias’ as well as by the ‘offline bias’. Both suggest that offline domestic firms may not want to cut prices dramatically facing foreign online competition. To the extent that domestic offline firms are primarily competing against domestic online firms, the offline firms have already reduced prices and may only want to reduce prices further following a price cut from the domestic online firms.

Note: The figures show that firms sell more online in the region they are situated in than they do to the rest of the country. This implies that different legislation between countries is not the only important barrier to cross border trade.
It is very important to note that the better the foreign good or service is suited for online selling the clearer it is that domestic online firms will have to lower their prices in order to keep consumers. This will, in turn, force the domestic offline firms to also reduce prices. Furthermore, a strong foreign brand may address a niche in the domestic market not previously addressed by domestic online firms. If the niche was only addressed by domestic offline firms, the domestic offline firm may be forced to cut prices quite a lot to keep its customers.

In countries sharing borders and speaking the same language, cultural and linguistic barriers may be less important. Under such circumstances, foreign online firms may not experience a ‘local bias’. This will increase the competitive pressure on domestic online firms forcing online as well as offline firms to reduce their prices more than if the ‘local bias’ existed. The mechanisms are further explained in Box 3.4.

**Box 3.4: Price reactions in the presence of monopolistic competition**

A market with local bias may be best characterised by monopolistic competition. This implies that firms face a downward sloping demand curve setting the price where the marginal cost (MC) curve intersects with the marginal revenue (MR) curve. However, in contrast to a pure monopoly, many firms provide goods or services in the market. This situation is depicted in Figure A1 for a domestic online firm. Before entry of a foreign provider, the domestic online firm sets prices $P$ and quantities $Q$. Entry of the foreign provider increases competition illustrated by a flatter demand curve (D) in Figure A2. It is now optimal for the domestic online firm to lower prices and increases quantities to $P'$ and $Q'$. However, the presence of the foreign firm, even though it may offer even lower prices, has not forced the domestic online provider to lower its prices to the level of the foreign firm. The domestic provider still enjoys a monopoly situation which allows it to set prices above marginal costs.

![Figure A1: A domestic online firm before foreign cross border competition](#)

![Figure A2: A domestic online firm after foreign cross border competition](#)
The offline bias and therefore the monopoly situation is even clearer in the case of the offline domestic provider. We assume that a foreign online competitor only slightly increases competition for the customers of the offline provider, illustrated by an insignificantly flatter demand curve. The result is a very small reduction in prices and corresponding increase in quantity. This is illustrated in Figure B1 and Figure B2.

Figure B1: A domestic offline firm before foreign cross border competition

<table>
<thead>
<tr>
<th>Price</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>P</td>
<td>Q</td>
</tr>
<tr>
<td>MC</td>
<td>AC</td>
</tr>
<tr>
<td>DMR</td>
<td>Q</td>
</tr>
</tbody>
</table>

Figure B2: A domestic offline firm after foreign cross border competition

<table>
<thead>
<tr>
<th>Price</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>P'</td>
<td>Q'</td>
</tr>
<tr>
<td>MC</td>
<td>AC</td>
</tr>
<tr>
<td>D'MR'</td>
<td>Q'</td>
</tr>
</tbody>
</table>

The mechanisms are further described in Balasubramanian (1998) who develops a model of monopolistic competition between offline retailers and online retailers.


We have identified a number of offline and online merchants selling cosmetics and books, both suitable for online selling, from a broad sample of European countries. Both goods are sold online and foreign competition exists for both of them. For books, most people are familiar with foreign providers such as Amazon.co.uk and Blackwell.co.uk both UK firms, in addition to a number of domestic online (and of course offline) providers.

Comparing the mark-up of prices over costs for online and offline firms selling cosmetics and books, we find that offline firms have a higher mark-up than online firms, cf. Table 3.3. This could be interpreted to support the hypothesis of the ‘offline bias’.

The implication is that cross border presence and competition from online foreign competitors only to a certain extent lead to lower prices through reduced mark-ups on the total market consisting of online and offline firms.
### Table 3.3: Price-cost margins, average over 1999-2005

<table>
<thead>
<tr>
<th></th>
<th>Cosmetics</th>
<th>Books</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offline</td>
<td>3.5%</td>
<td>4.1%</td>
</tr>
<tr>
<td>Online</td>
<td>2.9%</td>
<td>2.6%</td>
</tr>
</tbody>
</table>

Note: The table shows the average price-cost margins from 1999-2005 for firms selling goods or services online ('online') and for firms selling similar goods or services offline ('offline').

Source: Internet research and Amadeus database.

In this respect, the notion that online trade leads to a disintermediation of the ‘middleman’ has less to do with foreign competition than with domestic online firms competing with domestic offline firms. Whether or not e-commerce leads to disintermediation of the middleman is a highly debatable notion in itself. For it to be the case, e-commerce must allow the producer to instead produce middleman services of advertising, shipping (small orders), dealing with customer service issues, and confronting retailers and other channel partners. Needless to say, successful and unsuccessful cases of disintermediation exist. One of the most successful stories of disintermediation may be Dell computers. Also most travel agency services may easily be provided online, and the same goes for specialised financial services. The box below provides an example of dissemination of the middleman in selling airline tickets.

### Box 3.5: Case study response to the dissemination of middleman

As stated by the representative of a large North-Eastern European airlines company, the main aim of the aviation industry is to only use online sale of electronic tickets, which saves time and money and lowers administrative costs. The company – and companies in general within the industry - will experience lower financial expenses due to the decreased number of ticket offices and it will reduce the need for human involvement, as the whole process would go through the automatic electronic system. At this point in time, the company already saves much money through the decreased tickets sales in physical ticket offices and increased online sale.

Source: Appendix C

We do not have data on start-ups and shot-downs of travel agencies separated into offline and online, but we do have data on their mark-ups. In contrast to cosmetics and books where offline firms retained mark-ups above those of online firms, offline travel agencies must make due with mark-ups similar (or even slightly lower) to those of online travel agencies, cf. Table 3.4. This indicates an absence of ‘offline bias’, and that the middleman services can often be carried out equally well online.

---

1 In Deutsche Bank Research (2006), Deutsche bank states that the cross border financial retail market is an important potential future market. However, today the customer demand is insignificant because most private customers wish to rely on national providers for financial services. Regulatory barriers are perceived as important as well.
Table 3.4: Price-cost margins, average over 1999-2005

<table>
<thead>
<tr>
<th></th>
<th>Travel agencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offline firms</td>
<td>2.3 %</td>
</tr>
<tr>
<td>Online firms</td>
<td>2.7 %</td>
</tr>
</tbody>
</table>

Note: The table shows the average price-cost margins from 1999-2005 for firms selling goods or services online ('online') and for firms selling similar goods or services offline ('offline').
Source: Internet research and Amadeus database.

An unsuccessful case of cutting out the middle man may be that of the Levi Strauss Company which, after having invested millions of dollars in an online venture to sell jeans directly to the public, switched course and went back to selling jeans through its retailer partners only. This occurred around the year 2000. In this respect, it is good to remember that a successful company like Amazon is not so much about cutting out the middleman, as it is about being an efficient middleman. Cutting out the middleman would be book publishers selling directly to the retail market.

Econometric estimations
We have tried to estimate the short run impact of the Directive in an econometric model. By short run we mean that the estimations seek to capture the actual impact in the few years since transposition of the Directive.

Based on accountancy data on firm level, we set up and estimate models of firms’ rents (prices over costs) and productivity, looking for an impact caused by the Directive.

The rent and productivity models, which are standard for this type of estimation (see Copenhagen Economics (2005) for a more detailed description), look like this, respectively:

Rents:
\[
\ln(PCM_i) = \beta_0 + \beta_1 \ln(Sales_i) + \beta_2 NCA_i + \beta_3 IVS_i + \beta_4 IVS_i^2 + \beta_5 \ln(CapInt_i) + \beta_6 \ln(LabPd_i) + \beta_7 HHI + \beta_8 \ln(Age_i) + \beta_9 Ecommerce
\]

Productivity:
\[
\ln(LabPd_i) = \beta_0 + \beta_1 \ln(Sales_i) + \beta_2 \ln(CapInt_i) + \beta_3 HHI + \beta_4 Ecommerce
\]

Box 3.6: Variable definitions

The variables have been defined as below.

Price-Cost Margin (PCM). Based on Schmalensee (1989) the price-cost margin (PCM) can be defined as:
\[
PCM = \frac{(PQ - vQ)}{PQ} \text{ where } Q \text{ is quantity, } P \text{ is price and } v \text{ is variable cost per unit. Thus, we}
measure the average profit rate for each EURO sold.

Sales (Sales). Total revenue from sales capturing possible economies of scale.

Non-Core Activities (NCA). Proportion of revenue from non-core activities, which indicates how diversified the firm is. The same measure has been included in Copenhagen Economics (2005).

Inventories-to-Sales (IvS). Efficiency of supply measured as inventories to sales.

Capital intensity (CapInt). The variable captures the firms’ use of capital in the production and is measured by the ratio of capital to total sales. Most researchers have expected to find a positive impact, but many have obtained negative coefficients. Thus, a trade-off seems to exist between increased automation and over-capitalisation. The variables used to form the ratio are tangible fixed assets and sales.

Labour productivity (LabPd). Labour productivity is calculated as sales per employee. Higher productivity should increase profit margins. One reason could be that more productive workers will still share some of their excess productivity with their employers.

Herfindahl concentration index (HHI). Bothwell et.al. (1984) uses a concentration ratio based on the SIC classification system which is equivalent to the Herfindahl-index. A higher seller concentration is possibly caused by monopoly and thus a higher concentration would be expected to raise the PCM. The variable is calculated based on turnover shares.

Firm age (Age). Age of the firm in years.

E-commerce effect (E-commerce). This variable captures the suitability of the product for electronic commerce. The variable is binary coded; 0 for ‘less suitable’ industries (92.7: gambling, 45: construction, 52.7: repair of personal and household goods), and 1 for ‘more suitable’. In a parallel estimation we code this dummy according to origin: 1 if the firm is located in a country that implemented the Directive in 2002 and 0 if later.

Using firm-level data from the Amadeus database, we have created a sample consisting of two types of firms: (i) those belonging to industries with ‘suitable’ e-commerce products (services) and residing in Member States implementing the Directive in 2002; and (ii) those belonging to industries with particularly ‘non-suitable’ products (services) or residing in Member States implementing the Directive at a later stage.

We have suppressed the subscript for time in the equations. In fact, our modelling approach is identical to carrying out an ordinary least squares estimation on differences between pre-Directive and post-Directive years for all variables such that our final model is very similar to a so called “Difference-in-Differences” estimator. If the industries captured by the E-commerce dummy variable have experienced higher productivity and higher profits after the implementation of the Directive, this will result in a positive coefficient for this variable in each of the equations.

Source: Copenhagen Economics.

In order to assess the actual, and not the expected, effect of the Directive, we use data prior to and following transposition of the Directive. Specifically, we use data for 2000 and 2004. 2004 is the last year of available data. This means that we assess differences in firm performance before and after the Directive. We also take out potential general growth, by comparing the growth in our chosen sectors with the growth in sectors assumed not to be that affected by the Directive. Moreover, we see if we can track a difference between performance in Member States that transposed the Directive in 2002 and those Member States that transposed the Directive later.

6 Using a later year would have introduced more noise in the estimations due to general economic developments (shocks) implying higher uncertainty of the estimates.
If the sectors captured by the E-commerce dummy variable ‘E-commerce’ have experienced higher productivity and higher profits after the implementation of the Directive, this will result in a positive coefficient for this variable in each of the equations.

The table below shows the estimation results for rent and productivity for computer activities.

In the rent equation, the coefficient to labour productivity (LabPd) is significant with a positive sign. This implies that higher productivity leads to higher earnings for the majority of firms.

Sales have a positive and significant coefficient in the productivity equation. This is a clear sign of economies of scale: as sales rises, average costs drops pushing up productivity measured as sales per employee.

The Directive variable (E-commerce) is significant in the productivity equation implying that, as far as we have been successful, the Directive has led to an increase in productivity. It is insignificant in the rent-equation.

Table 3.5: Illustration of estimation on rents and productivity, nace 72: computer and related activities (this is where we find intermediary service providers)

<table>
<thead>
<tr>
<th></th>
<th>Rent</th>
<th>Productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient</td>
<td>Coefficient</td>
</tr>
<tr>
<td>Sales</td>
<td>-0.20**</td>
<td>0.55**</td>
</tr>
<tr>
<td>NCA</td>
<td>-0.18</td>
<td></td>
</tr>
<tr>
<td>IvS</td>
<td>-0.12</td>
<td></td>
</tr>
<tr>
<td>IvS_Sq</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>Captnt</td>
<td>0.03</td>
<td>-0.11**</td>
</tr>
<tr>
<td>LabPd</td>
<td>0.09**</td>
<td></td>
</tr>
<tr>
<td>HHI</td>
<td>0.35</td>
<td>0.52**</td>
</tr>
<tr>
<td>Age</td>
<td>-0.10*</td>
<td></td>
</tr>
<tr>
<td>E-commerce</td>
<td>0.09</td>
<td>0.05**</td>
</tr>
<tr>
<td>Prob &gt; F</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Obs.</td>
<td>3,675</td>
<td>9,468</td>
</tr>
</tbody>
</table>

Note: * means significant at the 5% level; ** means significant at the 1% level. Robust standard errors have been used. We have suppressed the subscript for time in the equations. In fact, our modelling approach is identical to carrying out an ordinary least squares estimation on differences between pre-Directive and post-Directive years for
all variables such that our final model is very similar to a so called "Difference-in-Differences" estimator. If the industries captured by the E-commerce dummy variable have experienced higher productivity and higher profits after the implementation of the Directive, this will result in a positive coefficient for this variable in each of the equations.

Source: Appendix D.

The insignificant effect on mark-ups from the Directive is largely confirmed when estimating the impact of the Directive on mark-ups on other sectors, cf. Table 3.6.

The table shows that ‘Directive’, for most sectors have an insignificant coefficient implying that the Directive does not on balance impact firms price-cost margins.

Table 3.6: Estimations of the link between price-cost margin and the Directive

<table>
<thead>
<tr>
<th>Variable / Sector</th>
<th>Computer and related activities</th>
<th>Database activities</th>
<th>Retail trade via mail order houses</th>
<th>Retail sale</th>
<th>Publishing, printing and reproduction of recorded media</th>
<th>Recreation, cultural, and sporting activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>-0.202**</td>
<td>-0.057</td>
<td>-0.171**</td>
<td>0.297*</td>
<td>-0.069*</td>
<td>-0.098*</td>
</tr>
<tr>
<td>Labour productivity</td>
<td>0.093*</td>
<td>-0.161</td>
<td>0.128**</td>
<td>-0.444</td>
<td>0.178**</td>
<td>0.090*</td>
</tr>
<tr>
<td>Directive</td>
<td>0.093</td>
<td>0.586</td>
<td>0.012*</td>
<td>0.307*</td>
<td>0.005</td>
<td>0.027</td>
</tr>
</tbody>
</table>

Note: The table shows firm level estimation results of labour productivity estimated on sales, capital intensity, herfindahl-index in the sector (hhi), and the Directive. The Directive-variable is a dummy variable reflecting whether or not the difference in productivity growth before and after transposition of the Directive is larger for the sector in question compared to a sector not assumed to be affected as much by the Directive.

* means significant at the 5% level; ** means significant at the 1% level.

Source: Own estimations on Amadeus database. For estimation results covering other sector please refer to Appendix D.

Looking at the link between the Directive and labour productivity, we find indications that the Directive has increased productivity and that economies of scale exist, cf. Table 3.7.
### Table 3.7: Estimations of the link between labour productivity and the Directive

<table>
<thead>
<tr>
<th>Variable / Sector</th>
<th>Computer and related activities</th>
<th>Database activities</th>
<th>Retail trade</th>
<th>Retail sale via mail order houses</th>
<th>Publishing, printing and reproduction of recorded media</th>
<th>Recreation al, cultural, and sporting activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>0.546**</td>
<td>0.615**</td>
<td>0.502**</td>
<td>0.415**</td>
<td>0.501**</td>
<td>0.540**</td>
</tr>
<tr>
<td>Capital intensity</td>
<td>-0.110**</td>
<td>-0.160**</td>
<td>-0.072**</td>
<td>-0.044**</td>
<td>-0.058**</td>
<td>-0.078**</td>
</tr>
<tr>
<td>Hhi</td>
<td>0.520**</td>
<td>-0.778*</td>
<td>0.072*</td>
<td>3.933*</td>
<td>0.900</td>
<td>-0.227*</td>
</tr>
<tr>
<td>Directive</td>
<td>0.046**</td>
<td>0.010</td>
<td>0.043**</td>
<td>0.073*</td>
<td>0.038**</td>
<td>0.034</td>
</tr>
</tbody>
</table>

*Note: The table shows firm level estimation results of labour productivity estimated on sales, capital intensity, Herfindahl-index in the sector (hhi), and the Directive. The Directive-variable is a dummy variable reflecting whether or not the difference in productivity growth before and after transposition of the Directive is larger for the sector in question compared to a sector not assumed to be affected as much by the Directive.

* means significant at the 5% level; ** means significant at the 1% level.

*Source: Own estimations on Amadeus database. For estimation results covering other sector please refer to Appendix D.*

The Directive variable has a positive coefficient implying that the Directive has led to higher productivity. Except for Recreational, cultural, and sporting activities where the coefficient is small and insignificant. This could be explained by the fact that most of the sub-industries in this sector, e.g. motion picture and video activities, are exempted from the country of origin principle.

We find the largest and most significant impact from the Directive in Computer and related activities where we find software consultancies and database activities. In the latter category we find well known intermediary service providers such as Google and Yahoo!

The combination of unchanged mark-ups and higher productivity as a result of the Directive may be interpreted in the way that even though more firms start using e-commerce technology and may increase their cross border sales as a consequence to the Directive, it does not in these initial stages, at the macro level, drive down mark-ups and hence prices in foreign markets. Instead it is the resulting higher returns to scale from more cross border trade, in addition to other beneficial provision in the Directive which serve to reduce costs such as e-contracts, that leads to a rise in firm efficiency.

It is also likely that some of the economies of scale we find is partly driven by the often strong underlying growth in sales from 2000-2004.
There may also be an element of self selection: firms that choose to engage in e-commerce due to the Directive may be more prone to use automation and innovative it-solutions in their entire business operations than other firms. This leads us to overestimate the direct impact of the Directive on firm productivity.

The estimations follow the line of thought in Copenhagen Economics (2005) which assess the expected (not actual) impact of the Services Directive. There are also differences. Both are further described in Box 3.7.

Box 3.7: Estimation principles in the current study and Copenhagen Economics (2005)

The estimations adhere to the principles in Copenhagen Economics (2005) which assess the expected (not actual) impact of the Services Directive. However, while we use a dummy variable to capture the impact of the Directive, Copenhagen Economics (2005) uses country and industry specific indices. This is possible because Copenhagen Economics (2005) focuses on just three industries whereas we focus much broader, estimating the model for more than twenty industries. The advantage of Copenhagen Economics (2005) is a more exact result for the specific industries. The advantage of this approach in the current study is that we get an overall picture across several industries.

The estimation procedure in Copenhagen Economics (2005) uses the variation in country and industry specific legal barriers to find the link between size of these legal barriers and performance (rents and productivity). And then subsequently interpret the directive under investigation into expected changes in the barriers. With these changes in barriers follow changes in performance as dictated by the estimated link between barriers and performance.

Hence, the estimations are totally separated from the directive under investigation. It is important to measure the current legal framework covering all aspects of that specific industry. And not to focus on the Directive under investigation at this stage. This also means that barriers are very different between different industries as they of course adhere to very different laws. For example, financial institutions must adhere to a completely different set of rules than say retail traders. And within the industry the legislation imply different degrees of barriers between countries. A graph of barriers from Copenhagen Economics (2005) illustrates this.

Figure A: IMRIS (barriers) for countries and industries.
Once the barriers have been calculated for each industry and each country, industry specific estimations like the ones in the current study, are carried out but with the industry specific barrier index as independent variable. The estimations make use of the variation in indices between countries. The estimated coefficients demonstrate how strongly firm performance is affected by the size of barriers for each industry. Finally, the evaluator *interprets* the directive under investigation into the legal barrier thereby predicting how the legislation and thus barriers will change in each country for each industry. Using the estimated coefficients, the evaluator then predicts the expected impact from the directive on firm performance.

The challenge with the e-commerce directive (Directive) in relation to the method in Copenhagen Economics (2005) is that it potentially affects the entire economy. This means that one would get a very limited picture of the impact of the Directive, if only focussing on 2-3 industries. From a resource point of view, it would not be possible to use the exact same approach as in Copenhagen Economics (2005) as it entails asking *not* about the framework conditions particularly covered by the Directive, but asking about the total framework conditions for *each sector in questions*, disregarding for the time being, any reference to information society services.

Instead, we have, in the current study, collected information on framework conditions on information society services. In this way we get a picture of the general country specific framework conditions in the areas covered by the Directive, before and after transposition. As we have seen in chapter 1, the Directive has improved framework conditions for information society services. But it is important to remember that these
framework conditions do not represent the entire legal framework facing firms in the many different industries affected by the Directive.


The finding that the Directive leads to higher productivity is supported by separate estimations of the link between productivity on firms’ use of e-commerce. In an estimation based on data from the EbusinessW@atch-survey, we find that firms which make intensive use of e-commerce experience higher productivity, cf. Box 3.8. Increasing returns to scale and better use of IT- and e-commerce solutions throughout the business operation, serve to explain the higher productivity.

**Box 3.8: E-commerce intensity and labour productivity**

We have carried out a firm level estimation with labour productivity as the dependent variable and intensity in use of e-commerce-sales (one of) the independent variable. We find that firms that use e-commerce intensively for selling experience higher productivity, or lower costs, cf. Table A.

| Variable                        | Coefficient | Standard error | t-value | P>|t-value| |
|---------------------------------|-------------|----------------|---------|---------|
| Intensity in use of e-commerce in sales | 1.28        | 0.06           | 20.50   | 0.00    |

If the share of online sales increases by 1 percentage point, labour productivity will increase by 1.28 percent. Or in other words, industries with exclusively online sales tend to have approximately twice the productivity of industries using solely the standard sales mode. There is a fair chance that some of this productivity gain is not due to online sales per se, but the generally higher share of automation, i.e. use of computers, in the e-commerce intensive industries and increasing returns to scale.

Source: Own estimations based on EbusinessW@atch and the Amadeus database, 2004/2005. See appendix D.
In this chapter we discuss the long run potential gains from the Directive. We expect these
to be far greater than the effects presented in the previous chapters, focussing on the short
run effects of the Directive measured only a few years after transposition.

In the previous chapters, we found indications that specific provisions have reduced firm
costs already. Specifically, the provisions on limited liability for intermediary service
providers and the ability to concluded contracts electronically seemed to have had an
immediate impact on firm costs.

However, we did not find clear evidence of strong increases in cross border trade based on
the scarce data available. It takes time for the full impact of legal changes to emerge for at
least two reasons. First, firms and consumers must be aware that a legal change has taken
place. Based on results from firm interviews, we suggest below that many firms do not yet
have full knowledge of the existence and implications of the Directive. Second, firms must
adjust behaviour in light of legal change for the change to have any economic impact;
however, adjustment happens over a period of time as new business opportunities are not
seized over night.

Based on long run predictions of the economic significance of the Services Directive
containing several provisions similar to provisions found in the E-commerce Directive and
affecting many of the same sectors, we suggest that the long run potential gains of the E-
commerce Directive may be substantial.

4.1. KNOWLEDGE AND ENFORCEMENT

For the Directive to deliver stronger long run gains, it is important that firms are actually
aware of the content of the Directive, that firms feel confident that other directives or
national legislation do not override the E-commerce directive, and that Member States
enforce the provisions in the Directive in an effective manner.

Certain results from firm interviews, however, suggest that firms are not always aware of the

**Box 4.1: Case study responses to company knowledge about the Directive**

A smaller Swedish internet service provider pointed out that its relevant people were not aware of the ECD
regulation in general and the limited liability provisions of the ECD (art. 12-14 on mere conduit, caching, and
hosting) in particular. Instead, the procedure used by the company was to incorporate a renouncement of supplier
liability in agreements between themselves and their customers. The objective of the renouncement is to make the
customer and not the company responsible for the content on the customers’ web-pages, etc.
In the representative’s experience, the transposition of the ECD is not generally known to many Swedish actors including many SMEs providing cashing, hosting, and mere conduit services, and more could be done in Sweden to ensure that knowledge of the ECD is sufficient.

Source: Appendix C

Moreover, in order to achieve long-term gains it is also of high importance that Member States enforce the Directive properly. However, that may not always be the case according to firm responses in Box 4.2.

**Box 4.2: Case study responses to lack of enforcement in the Member States**

**a) Governing Institutions are not acquainted with the ECD**

Although the representative of a large North-East European airlines company believes that the amount of the electronic agreements will increase with time, thus making business easier and cheaper, he also pointed out that in the home country of the company, the state institutions still hesitate to fully apply the provisions of the ECD.

Although the ECD was launched in 2002, national tax authorities were suspicious of electronic contracts several years afterwards and not until summer 2006 were electronic tax returns incorporated. Prior to this, companies needed to submit both a paper form and an electronic form on tax returns, which required double work and was therefore a financial and administrative burden.

Additionally, he discussed the specific historic legacy in the country, due to which it will take some time to get used to new technological innovations, such as the use of electronic system in conducting business. Private companies especially face difficulties in dealing with state institutions and municipalities. A requirement to put stamps on documents was presented as an example. It was not until 2003, more than 10 years after the declaration of independence, that public institutions fully accepted documents without stamps, although according to the national laws they should have accepted this much earlier. Thus, the representative believes that it will take as long time as in a case with stamps in the country to get entirely used to conducting business and other matters by electronic means.

**b) Member States interpret the ECD differently**

Regarding the technical steps for contract conclusion, regulated by art. 10 of the ECD, the representative of a large search engine in Germany stated that there are differences in the Transformation Acts of the ECD in different Members States. Hence, it is not possible to use the same designs of technical steps in the contracts in all MS, since different MS have different requirements on particular parts of the contracts.

The company believed that the harmonised exoneration conditions for internet intermediaries when it
comes to mere conduit, hosting and caching (art. 12-14) made it easier to do business online as the
regulation on the liability issue is now much more transparent. However, MS treat liability issues differently
and national courts do not always unanimously adopt and interpret provisions. Some European countries -
Austria, Hungary, Portugal and Spain, amongst others, have decided that the Directive is too narrow and
therefore created additional protections for search engines. This leads to legal uncertainty since it is unclear
for the company how the national courts will act in the specific cases. Also, as pointed out by a large search
engine in France, these additions provided clarity for operators in these countries as well as a comparative
advantage over other internet intermediaries, as they have legal certainty in these areas. For instance, there
are no rules of precedence regarding the search engines in France, thus there is no consensus on how those
issues should be dealt with and the courts may rule differently on the same issue, which creates a very
uncertain environment.

The lack of similar transformation of the ECD into national law in the different MS also prevails with respect
to the monitoring obligations. The perception of one of the large search engines in Germany, and a large
search engine company (UK and Ireland department) is that the liability provisions are frequently challenged
and subject to much discussion. Such issues bring about uncertainty as to what extent the company should
monitor users’ behaviour and clients’ blogs, and the debate on what types of services are included in mere
conduit, hosting and caching, are relevant for them, because these issues are perceived to be left unsolved
by the ECD, thus leaving it up to the Member States to interpret these issues. The representatives stated
that they perceive these monitoring obligations to be highly unclear in the transformation acts in the
national legal systems. A certain level of monitoring is needed and it is not unanimously throughout the MS.

The lack of transparency gives the company a sense of legal insecurity and both internal (time, personnel)
and external (seeking outside legal assistance in cases where the company is sued due to the issue of
liabilities) costs have increased as a direct result of the lack of similar transformation acts in the different
MS.

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The German subsidiary of a large online retailer stressed that there is no need to change the ECD as such,
but clarity regarding the interpretation of the liability and monitoring provisions could advantageously be
provided which would limit the variations in national implementation, maybe through the European Court of
Justice or through interpretative communications by the Commission.

Source: Appendix C

4.2. Scope

Even when firms are fully aware of the Directive and feel confident in proper enforcement, it
still takes time for them to adjust behaviour in response to the new legal environment. This
may be due to costs of adjusting the capital stock and the organisational setup; and because
it takes time to identify new cross border business opportunities and develop strategies for
exploiting them.
When adjustment has taken place in the long run, we speculate that the economic impact of the Directive may be substantial for two reasons: 1) the large scope of the Directive; and 2) the country of origin principle allowing firms to easier promote and advertise their goods or services cross border.

The Directive has the potential to affect the entire economy not just information society service providers in a narrow sense, such as intermediary service providers. In reality, any business making use of information society services may benefit from the Directive. This suggests a great scope for the Directive, and hence a great potential economic impact.

Intermediary service providers, which are registered in 'computer activities' in the NACE code 72, constitute a mere 3% of total EU value added, cf. Table 4.1. If these firms were the only ones affected by the Directive, it would have a limited economy wide impact. Including travel agencies or publishing houses in this category, industries that make strong use of e-activities, only adds little to the overall share of value added.

However, including regulated professions, business services, distributive trade, and financial services significantly raises the share of EU valued added; all of these industries may benefit from the Directive.

### Table 4.1: Share of EU value added

<table>
<thead>
<tr>
<th>Sectors</th>
<th>Share of value added (%)</th>
<th>NACE codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer activities</td>
<td>3</td>
<td>72</td>
</tr>
<tr>
<td>Travel agencies</td>
<td>0.2</td>
<td>63.3</td>
</tr>
<tr>
<td>Paper and publishing</td>
<td>1</td>
<td>22</td>
</tr>
<tr>
<td>Regulated professions</td>
<td>3</td>
<td>74.1</td>
</tr>
<tr>
<td>Business service</td>
<td>5</td>
<td>74 (except 74.1)</td>
</tr>
<tr>
<td>Distributive trade</td>
<td>12</td>
<td>50-52, 55</td>
</tr>
<tr>
<td>Financial services</td>
<td>3</td>
<td>65, 67</td>
</tr>
<tr>
<td>Post and telecommunication</td>
<td>3</td>
<td>64</td>
</tr>
<tr>
<td>Transport</td>
<td>4</td>
<td>60-63 (except 63.3)</td>
</tr>
<tr>
<td>Recreational services</td>
<td>7</td>
<td>92</td>
</tr>
<tr>
<td>Other private services,</td>
<td>44</td>
<td>Rest</td>
</tr>
<tr>
<td>manufacturing and primary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>production</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government services</td>
<td>15</td>
<td>75, 80,85, 90</td>
</tr>
<tr>
<td>including health and social</td>
<td></td>
<td></td>
</tr>
<tr>
<td>services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Note: Gambling services are not covered by the Directive. Gambling lies in ‘recreational services’ in NACE code 92.


While any business making use of information society services may benefit from the Directive as it makes electronic communication cross border easier, we have particular reason...
to believe that many knowledge intensive business services such as regulated professions may benefit. The reason is the country of origin principle, and specifically how it makes it easier to promote and advertise goods and services cross borders.

This was identified as an important driver for the expected long run impact of the Services Directive as originally proposed by the Commission and assessed in Copenhagen Economics (2005). The study showed how productivity would rise and rents fall due to the country of origin principle, and how regulated professions would benefit in particular.

For that reason, Copenhagen Economics (2005) can be used to shed some light on the long run potential gains of the E-commerce Directive. The same holds true for Bruijn et al. (2006), a similar study showing how the country of origin principle may lead firms to change behaviour radically leading to a very strong increase in cross border trade. These two studies suggest that the Directive may lead to significant potential welfare gains above ½ a percent, cf. Table 4.2.

Table 4.2: Studies on effects of Services Directive and the Internal Market

<table>
<thead>
<tr>
<th>Source</th>
<th>Welfare effects % from baseline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copenhagen Economics (2005)</td>
<td>0.6</td>
</tr>
<tr>
<td>de Bruijn et al (2006)</td>
<td>0.5-1.2³</td>
</tr>
<tr>
<td>Bruess and Bardinger (2005)</td>
<td>0.5-0.9²</td>
</tr>
<tr>
<td>European Commission (2002)</td>
<td>1.8²</td>
</tr>
</tbody>
</table>

1: Consumption effect, which is closely related to welfare as welfare is comprehensive consumption.  
2: GDP. The value of GDP will often be close to the value of welfare.  
Source: Copenhagen Economics (2005), de Bruijn et al. (2006), and European Commission (2002).

The table also presents the estimated impact of the Internal Market in 2002 ten years after its introduction. The European Commission (2002) estimated the Internal Market to have increased EU GDP by 1.8% during the ten year period. As this estimate covers the entire Internal Market, it demonstrates that an impact of the Directive in the range of ½ a percent is a great achievement. Comparing the 1.8% with the expected gain of 4.5% in 1992 from the Cecchini report (Cecchini (1992)) supports the previous notion that it takes a while before economic effects of a new regulation are fully realised.

The estimate in Copenhagen Economics (2005) does on the one hand overestimate the impact of the Directive as it represents the entire Services Directive and the effect on FDI, not just the country of origin principle and its effect on cross border trade. On the other hand, it underestimates the impact of the Directive as it does not include intermediary service providers, financial services, and communication, all of which may benefit from the

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³ The country of origin principle existed in the original Commission proposal for a Services Directive.
Directive but are not included. Not to talk about firms in the rest of the economy including manufacturing which may benefit from the Directive to the extent they make use of information society services, especially in a cross border setting.

We have also carried out simulations to illustrate the long run potential economy wide impact of the Directive. We have used a CGE model for EU25 whereby the simulations capture spill over effects between sectors and countries from the initial direct sectoral impact on cross border trade and productivity from the Directive.

We cover in the simulations more sectors than covered by our own study of the Services Directive, reflecting the potentially greater scope of the E-commerce Directive. However, we do not assume that every sector in the economy is directly affected, cf. Table 4.3.

<table>
<thead>
<tr>
<th>Sectors</th>
<th>Share of value added (%)</th>
<th>Our simulations</th>
<th>Covered by Services Directive study Copenhagen Economics (2005)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer activities</td>
<td>3</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Travel agencies</td>
<td>0.2</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Paper and publishing</td>
<td>1</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Regulated professions</td>
<td>3</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Business service</td>
<td>5</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Distributive trade</td>
<td>12</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Financial services</td>
<td>3</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Post and telecommunication</td>
<td>3</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>-</td>
<td>30</td>
<td>20</td>
</tr>
</tbody>
</table>

Source: See Table 4.1.

The input to the simulations, the direct sectoral impact on cross border trade and productivity from the Directive, are inspired by the estimate on the Services Directives from de Bruijn et al (2006) and Bruegg and Bardinger (2005). However, we rephrase their estimates into conservative ones such that we may attribute ‘large’ findings to the scope of the Directive.

Our simulations do confirm that the potentially large scope of the Directive is a driver of economy wide effects. The results of the simulations illustrate that welfare based on the chosen direct inputs to the model could increase by 0.42% in the long run, cf. Table 4.4; this is almost within range of the service directive findings. The similar size result but with lower direct sectoral inputs indicate that scope is important.
Table 4.4: Illustrative welfare effects from the Directive

<table>
<thead>
<tr>
<th>Labour productivity</th>
<th>Impact on competition and rents in foreign markets from cross border trade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>Low</td>
<td>0.13</td>
</tr>
<tr>
<td>High</td>
<td>0.17</td>
</tr>
</tbody>
</table>

Note: The implemented changes in frictional trade cost are low=1%; high=5%. The implemented changes in labour productivity are: low=0.5%; high=1%. De Bruijn et al (2006) use frictional trade costs between 10%-25%. Bruess and Bardinger (2005) use labour productivity between 0.5%-1.1%. Hence, our direct sectoral inputs are conservative compared to theirs. Welfare is defined as comprehensive consumption. Source: Copenhagen Economics Trade Model (CETM) see box below.

The table shows combinations of direct sectoral inputs. It is clear that the Directive in the short run, where firms and consumers have not adjusted fully to the new opportunities produce markedly lower economy wide impacts (‘low’-combinations). The strong contribution from more trade reflects that abolition of un-productivity time a firm spend familiarising itself with foreign legislation and risk of legal uncertainty greatly increases welfare.

Derogations from the country of origin principle should also be interpreted in relation to how their abolishment may stimulate cross border trade and lower rents on the one hand and productivity on the other hand.
Box 4.3: Description of the simulations

The Copenhagen Economic Trade Model (CETM) is a global, multi-regional, multi-sectoral general equilibrium model. The model captures all linkages between the different sectors of the economy. Specifically, the model captures both the direct effects on sectors targeted by the specific policy and the indirect effects on their suppliers, consumers and competitors.

The illustration below gives an overview of the markets, the agents, and the flows of goods, services, and factors in the model. Firms producing goods and services represent the supply side of the model. All goods and services are being produced with materials and primary factors capital and labour. A representative agent represents final demand and he finances his consumption with income from sales of capital and labour. Finally, a government provides public goods financed through taxes and duties.

Two types of barriers are modelled in CETM. The first barrier is the frictional trade cost which regards the cross border effects due to the country of origin principle. These trade costs are modelled as iceberg cost, raising prices for the users without generating revenue. Thereby the increases in the price of the imported goods reflect the time and cost used to get familiarized with other countries market regulations, which is an un-productive work creating gains for no-one.

In the CETM model we will implement the frictional trade costs in the “armington” demand and cost functions. These functions keep track of the substitution between demand for domestic produced goods and imported goods.

This way of modelling frictional trade cost is in line with other studies e.g. like the studies carried out by CPB, cf. Kox et al (2005) and De Bruijn et al (2006).

The second type of barrier is the cost-creating or labour productivity barriers. These barriers increase the use of real resources. Hence the reduction in cost-creating barriers reflects higher productivity due to e-contracts, limited liability in addition to increasing returns to scale for the firms that do expand their cross border activities. This type of barrier is represented through an exogenous productivity factor whose removal improves productivity through more efficient use of inputs.

The cost-creating barriers are expressed in tax equivalents, i.e. as percentage impacts on prices. The tax
equivalents can be thought of as hypothetical taxes that are computed to create economic effects that are equivalent to the economic effects of the actual barriers as computed earlier in the analysis chain. The implementation of this type of tax equivalents follow the techniques used in Copenhagen Economics (2005).

Source: Copenhagen Economics

4.3. TRIGGER
If an important driver of economic impact of the Directive is its scope, the important trigger is the development in cross border trade. Not only will cross border trade increase competition in foreign markets thereby lowering rents and increasing efficiency. But additional gains may come from higher productivity primarily through economies of scale.

Economies of scale means serving more customers without at the same time increasing use of inputs proportionally. Economies of scale is most dominant in industries with high fixed costs and low marginal costs. Well known examples are telecommunications and railway transport. However, E-commerce is well suited for exploiting economies of scale through cross border trade, as well. Think of an IT platform able to handle many small orders from both domestic and foreign buyers. The platform may be expensive implying a high average costs per item sold when the firm only sells a few items. But as the firm expands its business to foreign markets, the number of items sold increases and so does revenue, but the IT platform and the costs remains the same. This implies smaller average costs per item and higher earnings.

In a 2006 report on the expected future potential for providing cross border financial services, Deutsche Bank suggests that an important reason for financial institutions to engage in cross border business is benefits from economies of scale. This, however, requires

“…a uniform regulatory framework [across countries] as otherwise product specifications cannot be aligned….retail financial firms still face strong disincentives to the provision of cross-border retail services, i.e. the major discrepancies in consumer protection rules, civil law, tax treatment and banking supervision. Hence, economies of scale cannot be realised as central functions, risk management, IT systems and branding require adaptation to local standards.”

(Deutsche Bank Research (2006)

While aspects of branding are specifically dealt with in the Directive, many of the other elements are not. The importance of identical legal systems for reaping economies of scale benefits are further demonstrated in Box 4.4.
Box 4.4: Case study responses to the economies of scale

A large online retailers’ department in Germany noted that before the introduction of the ECD it was harder and more expensive to offer services as companies had to adapt their services to a new and different national legal system each time they entered into business in a new country. As a consequence, the company would choose to enter larger markets only, e.g. France as opposed to Belgium, because resources spent on familiarising themselves with the national legislation would be of a similar size in each country, but the subsequent profit would potentially be much larger in France than in Belgium. Because the ECD has reduced the costs of and streamlined the procedures for entering new markets, it is especially beneficial when entering smaller markets.

Source: Appendix C
REFERENCES


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APPENDIX A: THE ELECTRONIC COMMERCE DIRECTIVE
APPENDIX B: REPLIES TO QUESTIONNAIRE FROM EXPERT GROUP MEMBERS
APPENDIX C: RESULTS FROM FIRM INTERVIEWS
APPENDIX D: ECONOMETRIC RESULTS
APPENDIX E: METHODOLOGICAL CHALLENGES AND DATA SHORTCOMINGS

During the course of this study, we have identified a number of points that could be improved upon for future evaluations of the Directive. We stress the need for better data on cross border activities conducted via information society services and, on firm level, information on firms’ nature and extent of use of information society services.

**Strong underlying growth**

Due to the strong underlying growth in information society services and e-commerce, it is very difficult to detect an impact from the Directive, cf. Figure 4.1. The figure shows that the growth in e-commerce trade in the EU has been very strong during the past years and is expected to grow even more in the future. Such strong initial growth is natural for an emerging technology; it could occur independent of the Directive. However, it makes it virtually impossible to isolate an impact from the Directive, even if such an impact exists, as it will ‘drown’ in the strong growth. Eventually the growth will level off at which time it will be much easier to evaluate the impact on information society services from changes in relevant legislation such as the Directive.

**Figure 4.1: Growth in E-commerce trade in selected EU Member States**

Note: The figure shows the historic growth rate for e-commerce trade in selected EU Member States. The value for 2006-2008 is an estimate from Global Industry Analysts.
Cross border trade and online or offline

Very little statistical data exists on cross border trade by means of information society services. Rectifying is crucial for future monitoring of the development in e-commerce cross borders.

Furthermore, very little statistical data exist on firms’ nature and extent of use of information society services; even if a firm does advertising, business, after sales etc online or not. Some surveys such as the E-business W@atch collects firm level data of the use of e-commerce and performance. Unfortunately, only one or two performance measures are collected, and the information on the use of e-commerce is limited to a few industries and limited to information on e-purchase and e-selling. An obvious caveat in the E-business W@atch data set for this study is the lack of information on providers that are not predominantly merchants.

Data on intermediary service providers is also very limited. Considering the importance of these providers for the information society, this lack of data represents a serious barrier for evaluations on information society legislation. Ideally, data should be available on the number of search engines, content aggregators, price comparison services, and the array of services provided by intermediaries all of which are covered by the Directive. Furthermore, in light of the Directive, information should be available on cross border supply and demand of these intermediary information society services.