



MAKING EU TRADE IN SERVICES WORK FOR ALL

Enhancing innovation and competitiveness
throughout the EU economy

NOVEMBER 2018

AUTHORS

Eva Rytter Sunesen
Martin Hvidt Thelle

Disclaimer

The content of the report is not intended to reflect the official position of the individual Member States who commissioned it. The viewpoints expressed herein attempt to reflect the collective opinion of various individuals and stakeholders who have contributed to the research and development of this report; they do not necessarily imply an agreed position among them or ministerial endorsement by any Member State mentioned in the report.

PREFACE

This report was prepared for the Ministry of Industry and Trade of the Czech Republic, the Danish Ministry of Industry, Business and Financial Affairs, the Finnish Ministry of Economic Affairs and Employment, and the Irish Department of Business, Enterprise and Innovation.

CONTENTS

Executive summary	8
1 The key position of services within the EU economy	14
1.1 The rationale of a Single Market for services	15
1.2 Limited reductions in trade costs	16
1.3 Low Intra-EU trade in services	18
1.4 Potentials from implementing and enforcing the Services Directive	21
1.5 Potentials go beyond the Services Directive	26
2 The services sector and the EU's global competitiveness	30
2.1 The EU is losing economic strength	31
2.2 EU growth and prosperity under pressure	33
2.3 A Single Market for services can enhance productivity	37
2.4 Lower trade barriers can benefit small firms	38
3 Services trade and growth of tomorrow	42
3.1 The increased servitisation of EU manufacturing	43

3.2	The key role of digital services in the EU economy	51
3.3	Services trade, new technologies and innovation	55
4	Calls for action	60
4.1	Call for action 1: Set direction	62
4.2	Call for action 2: Ensure fit	62
4.3	Call for action 3: Measure progress	63
4.4	Call for action 4: Commit to improve	64
4.5	Call for action 5: Prioritise efforts	64
4.6	Call for action 6: Follow-up and adjust	65

LIST OF FIGURES

Figure 1 The rationale of the Single Market from a business and consumer perspective	16
Figure 2 Trade cost reduction from EU membership vs WTO and FTA conditions	17
Figure 3 Trade cost reductions and share of EU value added across services sectors	18
Figure 4 Trade in services within the EU and other trade blocs, 2008 and 2016	19
Figure 5 Intra-EU imports as a share of total inputs in sector, 2014	20
Figure 6 EU GDP with and without the Services Directive	22
Figure 7 GDP impacts with full implementation of the Services Directive	23
Figure 8 Reduced or remaining barriers in services sectors in the EU, 2009-2014	24
Figure 9	31
Figure 10 Possible impacts of Brexit on the EU's FDI attractiveness	33
Figure 11	34
Figure 12 Labour productivity comparisons	35
Figure 13 Potential GDP per capita growth in Europe, 2016-2070.....	36
Figure 14 Remaining potential of the Services Directive on productivity levels in the analysed services.....	38
Figure 15 SME shares in the EU28 non-financial business sector, 2016	39
Figure 16 Turnover per EU SME across sectors, 2016	40

Figure 17 Core manufacturing jobs and service jobs within manufacturing, 2015	44
Figure 18 Servitisation from a consumer perspective ...	45
Figure 19 The servitisation of EU and US manufacturing	47
Figure 20 Service employees in manufacturing as a share of total employees in manufacturing across Member States	48
Figure 21 EU services shares in manufacturing exports across sectors, 2011	50
Figure 22 Cost share of service input in manufacturing output, 1995 and 2011	51
Figure 23 Global trade in services and digital services, 1995-2016.....	52
Figure 24 Digital Trade Restrictiveness Index (DTRI), 2018	54
Figure 25 Innovation performance in 2017 and Service Trade Restrictiveness Index (STRI) development, 2014-2017	56
Figure 26 Value added in the ICT sector as a share of GDP, 2014.....	57
Figure 27 Six calls for action to improve the Single Market for services	61

EXECUTIVE SUMMARY

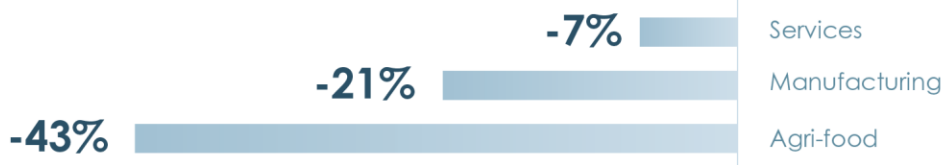
The Single Market is a key driver for EU welfare and prosperity.



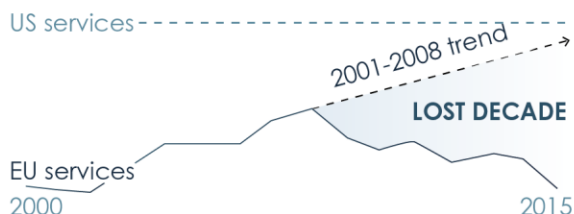
Services have become increasingly important because of digitalisation, servitisation and innovation, but EU countries are not fully prepared for this.

Trade cost reduction of EU membership relative to WTO

The Single Market for services falls short of expectations in terms of lowering trade costs.

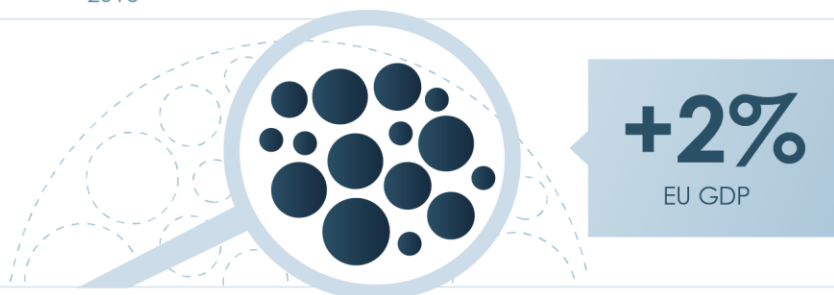


Labour productivity in EU services compared to US Services



A fragmented services market hampers productivity growth in services, and productivity in EU services has grown alarmingly slower than productivity in US services.

For 15 sectors accounting for 20% of the EU economy, a full implementation of the Services Directive alone can add almost 2% EU GDP. The full potential of the Single Market for services is larger.



EU share of World value added



The EU share of the global pie is shrinking, and Brexit will reinforce the downward trend in the EU's global position.

Closing gaps in the Single Market for services calls for action.

1. Set direction
2. Ensure fit
3. Measure progress
4. Commit to improve
5. Prioritise efforts
6. Follow-up and adjust

EXECUTIVE SUMMARY

A Single Market with more than 510 million people (or 450 million after Brexit) offers opportunities for EU businesses to specialise, gain scale and improve their productivity. Back in 2006, EU policy makers aimed to create a well-functioning Single Market for services, and the Services Directive was seen as a key step towards this ambition.

Services are increasingly important to the EU economy

Since then, services have become even more important for overall EU competitiveness:

- Services account for an increasing share of the EU economy
- The manufacturing and services sectors are increasingly intertwined
- Services are an integral part of the Digital Economy and innovation

The EU's global position is under pressure

Furthermore, the EU's position in the world economy is under pressure. Measured both in terms of trade, foreign direct investment (FDI), population and size of the economy, the EU's share of the global pie is shrinking. Had the EU maintained its global export market share since 2010, this would have supported one million jobs in the EU, and an additional EUR 250 billion would have been invested if the EU had maintained its share of World FDI. Brexit is likely to reinforce the downward trend in the EU's global position and may disrupt EU value chains, the location decision of multinationals within the EU and may reduce the overall attractiveness of the EU as an investment location.

The Single Market for services falls short of expectations

From a business perspective, the reality of the Single Market for services falls short of expectations. The Single Market has on average reduced trade costs by 20 per cent for goods but only 7 per cent for services. Trade cost reductions have been particularly small for some of the services sectors that account for a large share of EU value added (e.g. wholesale & retail trade and construction).

A fragmented Single Market for services means that intra-EU trade in services is less developed than intra-EU trade in goods, and intra-EU trade in services has grown more slowly compared to services within other trade blocs. At the same time, trade barriers within the Single Market for services mean that entrepreneurs and growing firms are limited in their ability to scale up by expanding across borders within the EU. Reduced ability to trade and expand across borders hampers the growth and productivity of EU businesses and has a larger negative impact for small and medium sized enterprises (SMEs).

A fragmented services market hampers productivity growth in services

Productivity in the EU manufacturing sector has grown three times faster than in the EU services sector, and productivity in EU services has grown alarmingly slower than productivity in US services. The period after the crisis reflects a 'lost decade' with respect to the EU's productivity growth in services. Since 2008, the EU's productivity in services has grown much less than that of the US and is now half that of the US level. The 'lost decade' has thereby fully eroded the catching up achieved before the crisis. Low economic growth, slow productivity growth and an ageing population put the EU's future prosperity under pressure.

Barriers tend to accumulate over the value chain and hurt SMEs more than larger firms, and SMEs in the services sector are on average four times smaller than SMEs in manufacturing.

A conservative estimate: Services Directive can add at least 2 per cent to EU GDP

Significant potential can be realised within the services sector itself. A full implementation and enforcement of the Services Directive alone will increase intra-EU trade in the affected services and will enhance the productivity in the services covered. Based on a conservative estimate for a selected sub-set of services covered by the Directive, the Commission finds a remaining potential of almost 2 per cent to EU GDP. The estimate is for a selected sub-set of services and ignores possible Single Market impacts in other services. The sectors covered by the Services Directive account for 46 per cent of EU GDP and only around half of these have been examined in the assessment covering around 20 per cent of EU GDP. Knowing that the services sector account for more than 70 per cent of the EU's GDP, the 2 per cent addition to EU GDP is clearly an under-estimate of the true potential.

Services more important because of digitalisation, servitisation and innovation

Gains from lowering barriers to EU trade in services is growing over time. This means that the 'cost of doing nothing' is growing year by year. The reason is that gains from lower barriers to services trade are not limited to the services sectors but will spread throughout the EU economy.

With increasing digitalisation of all sectors and servitisation of the manufacturing sector, these additional knock-on effects throughout the economy are growing in importance, and hence, so is the economic importance of services barriers. In addition, the EU services sectors are important for EU innovation, research and development perspective.

Digitalisation

Digitalisation has changed international trade and given rise to new complementarities between goods and services, particularly for trade in more complex manufactures and digitally deliverable services. Digital technologies and the amount of data they create trigger new innovations, products, services, business models, as well as new ways of interaction between people and machines.

Over the past ten years, trade in digital services has grown faster than trade in services in general and much faster than trade in goods. Benefiting from the growing trade in services is critically dependent on performing well in digital services as this is the fastest growing area of services trade. However, much of the empirical evidence suggests that the EU countries are not fully prepared for this. While some of EU's smaller, service-orientated economies are performing above average when it comes to low restrictions to digital trade, some of the larger economies such as Germany, France and Italy are lagging. Even the best EU countries are lagging the lead country, New Zealand, but ahead of the US and notably China. This means that there is a risk that Europe does not fully realise the potential in this area because several barriers to trade in service are holding us back.

Servitisation

Manufacturing firms are increasingly relying on services as inputs, either to support their own manufacturing activity or as integrated elements in the goods they sell:

- Between 25 per cent and 60 per cent of employment in manufacturing firms relates to service functions;
 - Around 14 million service jobs are embedded in EU goods exports;
 - The EU has more trade-related jobs in services than in manufacturing;
 - Service jobs within manufacturing account for more than 50 per cent of jobs in manufacturing firms in many advanced and highly competitive EU manufacturing countries, such as Germany and Sweden;
 - The process of servitisation has increased in the EU in recent decades;
 - EU manufacturing firms are more servitised than US firms;
 - Services cost 11 per cent more in the EU on average compared to the US.
-

Further integration of the Single Market for services can bring down prices, improve variety and help EU manufacturing firms to improve their competitiveness through servitisation. Reducing trade barriers is particularly important for the services sectors that sell services to the manufacturing sector, such as wholesale & retail trade, freight transport and accounting and legal services.

Services and innovation

The EU's innovative strength hinges on a Single Market with low barriers to trade in services:

- The services sector accounts for around 35 per cent of total R&D expenditure in the EU and for around half of private innovation expenditure;
- Europe, while still making progress, is behind the US and China in capturing the opportunities offered by digitisation, artificial intelligence and automation.

For EU businesses, successful adoption of these evolving technologies will significantly enhance performance and can be a competitive advantage and differentiator.

Closing gaps in the Single Market for services calls for action

This report identifies four important gaps:

- Adequacy gap – ensuring the rules are fit for purpose
- Implementation gap – ensuring that EU rules are implemented in national rules and laws
- Enforcement gap – follow up with proportionate sanctions for non-compliance at EU and national level
- Reality gap – ensuring it works in practice

Four gaps in the Single Market for services



Adequacy gap

Key pieces of the regulation of services trade in Europe are outdated. The e-commerce Directive is from the early 2000s and the Services Directive was construed some years later, adopted in 2006 and implemented by EU members by 2009.

Calls for action to ensure the rules are fit for purpose



Implementation gap

Even eight years after the deadline, the Services Directive is still not fully implemented in all the Member States.

Calls for action to ensure rules get properly implemented in national laws



Enforcement gap

While the key legislation (such as the Services Directive) is not properly implemented and therefore not enforceable, national-level measures sometimes introduce draconian restrictive measures which prevent cross-border exchange.

Calls for action to ensure follow-up and appropriate consequences for non-compliance at EU and national level



Reality gap

In the modern economy where there is an increasing level of servitisation, it makes little economic sense for such a difference between the depth and the width of the Single Market in services and the Single Market in goods.

Calls for action to ensure rules and regulations work in practice for the businesses and consumers involved

Source: Copenhagen Economics

The evidence presented calls for action, and this report points to six concrete areas where improvements to the Single Market for services can be made.

Initiatives to deepen the Single Market should be seen in relation to industrial policies, innovation initiatives, digitalisation strategies etc. This calls for *a Single Market*. Not one Single Market for goods, another for services and a third for digital activities.

Calls for action to improve the Single Market for services



1. Set direction

Put the Single Market for services high on the EU competitiveness agenda



2. Ensure fit

Digital proofing of key rules and directives



3. Measure progress

Develop a scoreboard 2.0 of Member State performance in reducing service barriers



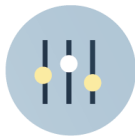
4. Commit to improve

Member States shall commit to improving their performance year by year



5. Prioritise efforts

Prioritise enforcement in the areas with greatest economic impacts



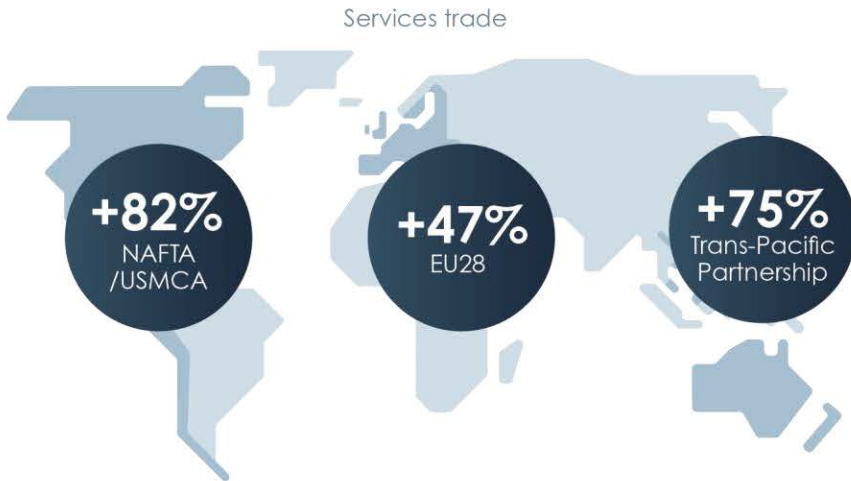
6. Follow-up and adjust

Conduct regular reality checks to ensure things are working in practice for all users

Source: Copenhagen Economics

THE KEY POSITION OF SERVICES WITHIN THE EU ECONOMY

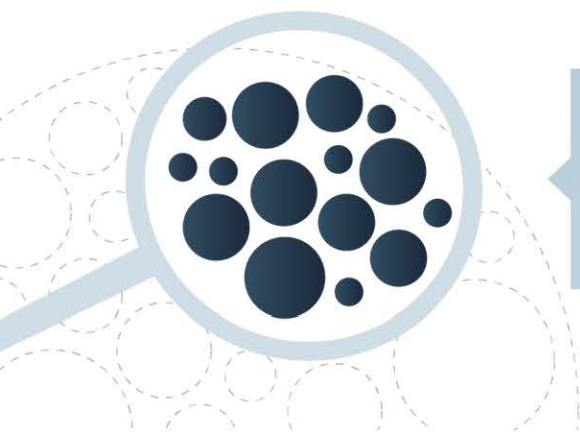
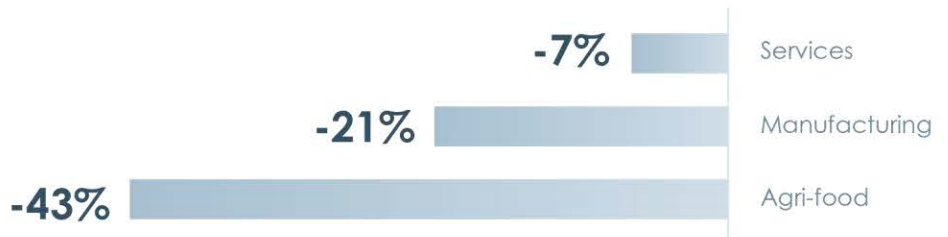
A Single Market with a population of 510 million (down to 450 million after Brexit) offers gains to businesses, consumers and citizens, and services are an increasingly important part of the EU economy.



Intra-EU trade in services has grown at a lower rate than within other trade blocs.

Trade cost reduction of EU membership relative to WTO

The Single Market has on average reduced trade cost by 20 per cent for goods but only seven for services.



+2%
EU GDP

15 sectors account for 20% of the EU economy. A full implementation and enforcement of the Services Directive alone can add 2 per cent to EU GDP.

CHAPTER 1

THE KEY POSITION OF SERVICES WITHIN THE EU ECONOMY

A Single Market with a combined population of more than 510 million (down to 450 million after Brexit) offers opportunities for EU businesses to specialise, gain scale and improve their productivity. When businesses become more productive they can lower their prices and/or deliver higher quality. EU consumers and businesses buying services thus benefit from a wider choice, lower prices and/or better quality. And with higher productivity comes better wages for EU workers.

In this chapter, we analyse the position of services in the EU economy. In Section 1.1, we look at the rationale of a Single Market for services. In Section 1.2, we look at how the Single Market has reduced trade costs for goods and services. In Section 1.3, we look at the development in intra-EU trade and compare it with trade within other regional trade arrangements. In Section 1.4, we look at the potential from closing the implementation and enforcement gap of the Single Market. In Section 1.5, we look at the potential for stimulating intra-EU trade in services beyond the Services Directive.

The chapter highlights the following findings:

- In 2006, EU policy makers agreed that it was highly important to ensure a well-functioning Single Market for services. Since then, the services sector has grown in importance from a share of 71.9 per cent of employment in 2006 to 73.3 per cent in 2017;
- The Single Market has brought significant benefits to EU businesses, consumers and citizens, but European trade in services has not seen the same growth as in goods and services trade within the EU has grown less than within other trade blocs;
- The Single Market has on average reduced trade cost by 9-20 per cent for manufacturing but only around 7 per cent for services. Trade cost reductions have been particularly small for some of the services sectors that account for a large share of EU value added (e.g. wholesale & retail trade and construction);
- A full implementation and enforcement of the Services Directive alone will increase intra-EU trade and enhance productivity in the services covered. Based on a conservative estimate for a selected sub-set of services covered by the Directive, the Commission finds a remaining potential of an almost 2 per cent addition to EU GDP. The estimate ignores possible Single Market impacts in other services;
- The sectors covered by the Services Directive account for 46 per cent of EU GDP and only around half of these have been examined in the assessment covering around 20 per cent of EU GDP. Knowing that the services sector accounts for over 60 per cent of the EU's GDP, the additional 2 per cent addition to EU GDP is clearly an under-estimate of the true potential;
- All Member States stand to gain from improving the Single Market for services, and closing the implementation gap has become more important as the services covered by the Directive account for an increasing share of the EU economy.

The services sector accounted for 73 per cent of total employment in the EU and 62 per cent of EU GDP in 2017. An underperforming services sector can thus act as a drag on the EU economy. The consumer and business perspective taken in this chapter shows that the reality of the Single Market for services falls short of expectations: This chapter will make the case that there is a significant potential for increasing intra-EU trade in services that will require initiatives at both the EU and national level. As part of this process, social security systems may need time to adapt.

1.1 THE RATIONALE OF A SINGLE MARKET FOR SERVICES

In 1992, EU policy makers formulated an ambition of a Single Market offering the free movement of goods, services, people and capital.¹ Within a Single Market, services should be able to flow across borders. Businesses should be able to structure, organise and operate across borders according to their own strategic considerations. Within a Single Market, an EU business should be able to:

- **Provide services abroad.** A provider of call centre services in one Member State should be able to serve clients in other Member States who wish to outsource their call centre activities without facing additional requirements or costs. Likewise, a European company offering courier, IT, telecommunications or business services should have the same possibilities to trade within and across borders.
- **Establish a branch abroad.** An architect firm should be able to open a foreign affiliate to be closer to its clients abroad without facing additional restrictions on ownership, professional qualifications or investment, compared to opening a new branch at home.
- **Move employees to perform tasks abroad.** A service provider with operations in multiple countries should be able to move staff across borders when their skills are required to serve customers in other Member States without any further requirements and with full recognition of professional qualifications. This could be an engineer working on an overseas project or after-sales personnel.
- **Sell services at home to visiting customers.** A dentist should be able to service domestic as well as foreign patients from his clinic in any given Member State without any additional authorisations, licensing or other requirements.

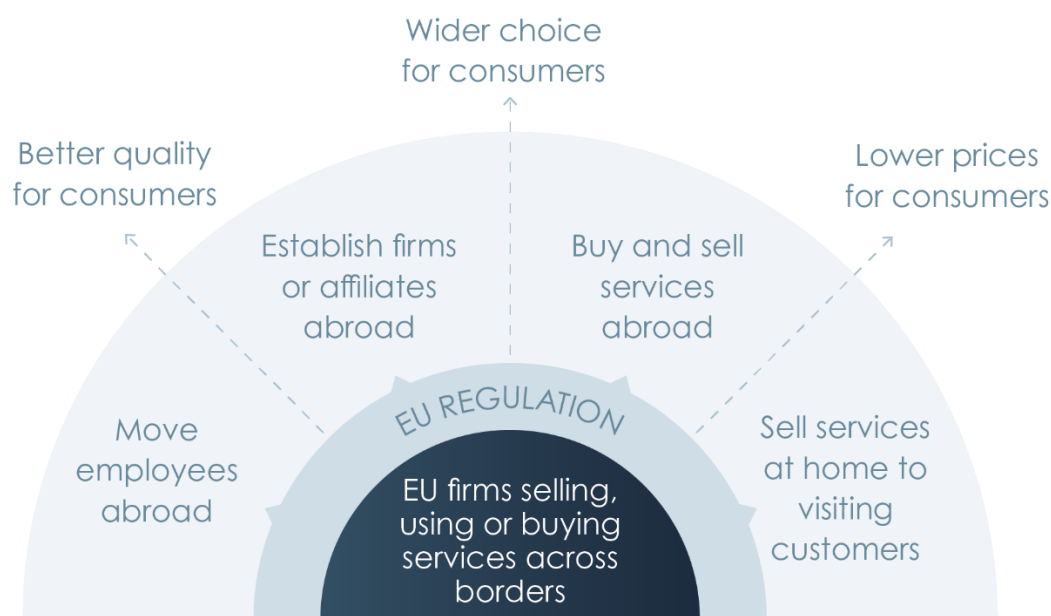
A Single Market with a population of 510 million (down to 450 million after Brexit) offers opportunities for EU businesses to specialise, gain scale and improve their productivity. When businesses become more productive they can lower their prices and/or deliver higher quality. EU citizens and businesses buying services thus benefit from a wider choice, lower prices and/or better quality.

The quality of a service is only revealed upon consumption. As low-quality services can have severe consequences for the buyer, regulation may be needed to guarantee a certain level of quality, consumer protection, environmental protection etc. However, the level of regulation should always remain proportionate to the objective needs, in line with EU Better Regulation principles, and should not have the effect of unjustly favouring providers from a certain location.

¹ As described in Chapter 3, digitalisation has impacted the way cross-border services are provided and given rise to new complementarities between goods and services. The free flow of data within the Single Market can thus be considered as a fifth freedom secured by the Single Market.

In 2002, a decade after the start of the Single Market, the European Commission (2002) concluded that there was still a huge gap between *'the vision of an integrated EU economy and the reality as experienced by European citizens and European service providers'*. Since 2002, a new common regulation of the Single Market has been developed to ensure that EU service providers face similar regulatory requirements at home and abroad, particularly by eliminating unjustified and disproportionate restrictions to the cross-border provision of services and to the establishment of businesses. This is illustrated in Figure 1.

Figure 1
The rationale of the Single Market from a business and consumer perspective

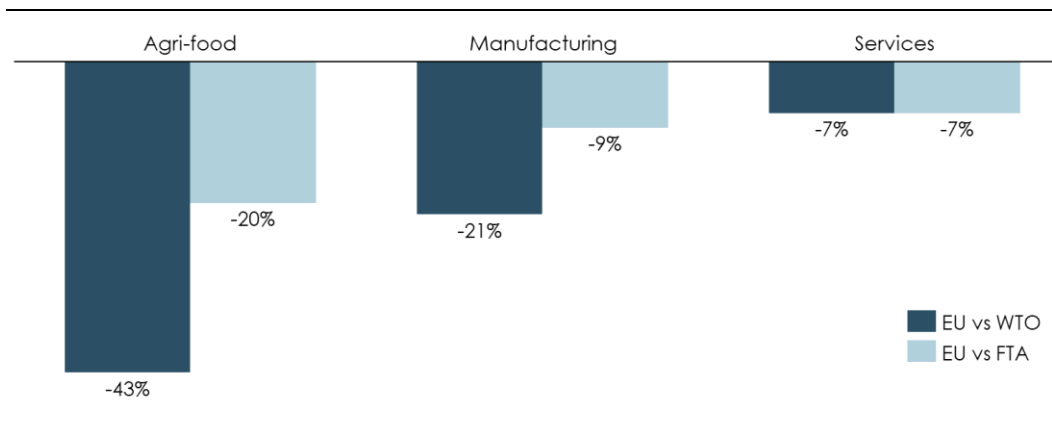


Source: Copenhagen Economics

1.2 LIMITED REDUCTIONS IN TRADE COSTS

While far from perfect, the Customs Union, harmonised EU rules and the principle of mutual recognition have been significant instruments in implementing the Single Market for goods. The Single Market has on average reduced the costs of selling goods across borders within the EU by more than 20 per cent (for agri-food products by more than 40 per cent) compared to trading on WTO terms and by 9 per cent compared to a free trade agreement (FTA), cf. Figure 2. For services, the trade cost reduction offered by the Single Market amounts to only around 7 per cent. Likewise, the European Commission (2017) estimates that the administrative costs of establishing a business across borders within the EU alone amount to around EUR 5,000-10,000.

Figure 2
Trade cost reduction from EU membership vs WTO and FTA conditions
Per cent

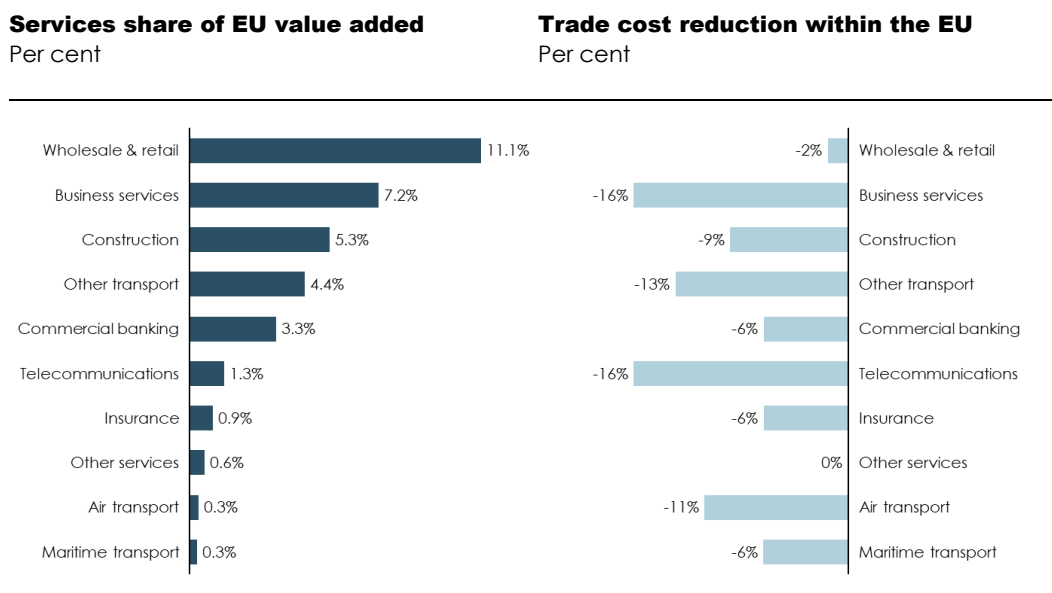


Note: Trade costs for agri-food and manufacturing include tariffs, border costs and trade costs related to regulatory harmonisation and convergence. Trade cost reductions in services shows the average intra.EU effect for cross-border services trade. Trade cost reductions are calculated as simple averages over the individual sub-sectors. The FTA numbers are based on a modest FTA in the long run.

Source: CE analysis based on CGE-simulations from J Francois

Trade cost reductions have been particularly limited in some services sectors that account for a large share of EU value added. Wholesale & retail trade (11.1 per cent of EU value added) has seen a trade cost reduction of around 2 per cent, and construction (5.3 per cent of EU value added) has seen a trade cost reduction of around 9 per cent compared to a free trade agreement (FTA) effect, cf. Figure 3. Business services (7.2 per cent of EU value added) and telecommunications have seen the largest trade cost reductions of 16 per cent compared to an FTA effect. As will become clear in Chapter 3, business services also play an important role in connection with the increasing servitisation of the manufacturing sector, which is one of the key components in ensuring its competitiveness.

Figure 3 Trade cost reductions and share of EU value added across services sectors



Note: The share of value added is for EU28 in 2016. Trade cost reduction reflect the intra-EU effect for cross-border services trade relative to a typical FTA.

Source: Copenhagen Economics based on Eurostat data and simulations from Professor Joseph Francois

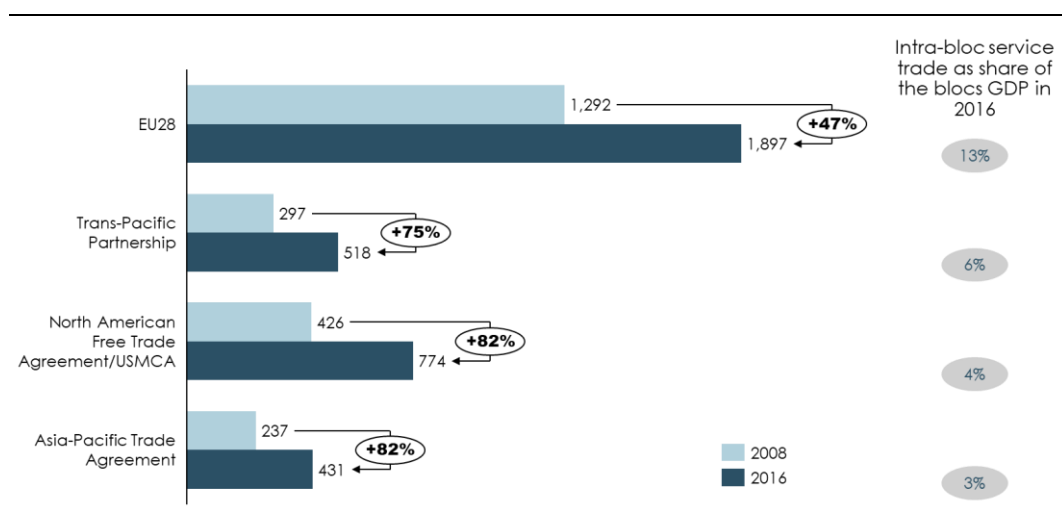
1.3 LOW INTRA-EU TRADE IN SERVICES

Limited trade cost reductions are part of the explanation why intra-EU trade in services only amounts to a third of intra-EU trade in goods. According to Eurostat, intra-EU trade in goods amounted to EUR 3,030 billion (growth from 1993 to 2016 of 169 per cent), whereas intra-EU trade in services amounted to EUR 1,060 billion (growth from 1993 to 2016 of 244 per cent). Intra-EU trade in goods amounts to 23 per cent of EU GDP compared to 8 per cent for services.

Not all services are equally tradeable, and intra-EU trade in services may never reach the same level as goods. But intra-EU trade in services has also grown at a lower rate (47 per cent) than within other trade blocs, such as the Trans-Pacific Partnership (75 per cent), NAFTA (82 per cent) and the Asia-Pacific Trade Agreement (82 per cent), cf. Figure 4.

The comparison should be taken with some caution as other factors (e.g. the significance of proximity for services that are delivered physically, the provision of personal services and the costs of buying services) should be taken into consideration. In addition, intra-EU services trade is growing from a more advanced level compared to the other trading blocs, and trade would tend to grow at a slower rate once it is at a higher level of integration. Still, the low level of trade in services compared to goods and the lower rate of growth in intra-EU trade in services compared to other trade blocs indicate that there is an untapped potential for increasing intra-EU trade in services.

Figure 4
Trade in services within the EU and other trade blocs, 2008 and 2016
 EUR billion



Note: Export values have been converted from USD into EUR with the average currency conversion for the given year.

Source: Copenhagen Economics based on UNCTAD and FRED data

Low intra-EU trade in services means that EU businesses forego opportunities to improve their productivity, and EU consumers face higher prices and/or less choice. The services sector accounted for 73 per cent of total employment in the EU and 62 per cent of value added in 2017, and an underperforming services sector can act as a drag on the EU economy. The underperformance of intra-EU trade in services relative to intra-EU trade in goods and trade in services within other trade blocs calls for putting services high on the EU competitiveness agenda.

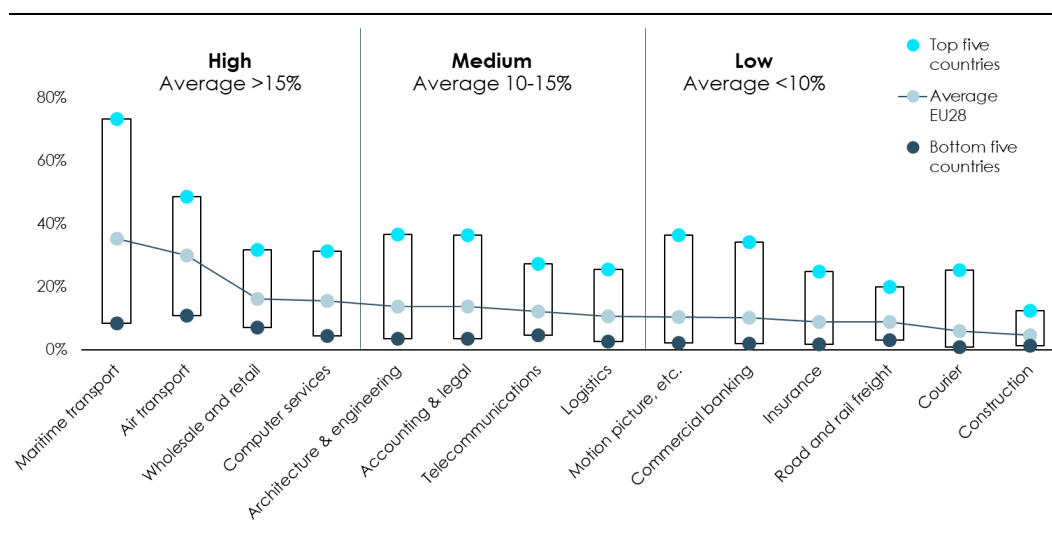
National legislation, geography, size, cultural factors, domestic market structures and a range of other factors besides common EU regulation shape the dependency of a country on services imports. For the services sector as a whole, the five Member States most dependent on intra-EU trade are all smaller Member States (Malta, Luxembourg, Hungary, Belgium and Estonia). They imported on average 21 per cent of all the services used in their respective countries from other Member States, whereas the least dependent Member States are all larger countries (the UK, Spain, Italy, France and Romania), which imported 5 per cent of their services from other EU countries.²

Within a specific services sector, the Member States that are most/least dependent on intra-EU trade varies. Cross-country variation is largest for maritime and air transportation for obvious reasons, for example Malta will always be dependent on maritime and air transport, while other countries such as Austria are not dependent on, for example, maritime transport to any degree. The five most dependent countries import on average 73 per cent of the total use of maritime services from other EU Member States and the bottom five countries on average import 8 per cent, cf. Figure 5.

² Copenhagen Economics based on WIOD database.

Variation is lowest for construction and courier services, and detailed market analysis about the structure and the functioning of these markets may help identify initiatives that can make regulation more adequate from a business perspective.

Figure 5
Intra-EU imports as a share of total inputs in sector, 2014
 Per cent



Note: Total service use in each country is the sum of imported inputs and domestic inputs for each sector. Averages are simple averages of the countries.

Source: Copenhagen Economics based on the WIOD database

Import patterns largely reflect the choice of private businesses and consumers but national authorities also have a role to play. First, the implementation and enforcement of common EU regulation by national authorities is of immense importance for the actual trade costs facing EU businesses (see next section). Second, the public sector is also a significant buyer in some sectors, and public procurement procedures impact the ease with which service providers can tender for public tasks in other Member States. In the case of cleaning services, for example, the complexity of national public procurement procedures in some cases poses a trade barrier, cf. Box 1.

Box 1 The complexity of public procurement procedures as a trade barrier

Markas is a family-run company with more than 9,000 employees, which provides facility services in Italy, Austria, Germany and Romania. The company specialises in high-quality cleaning, catering and other facility services at hospitals, retirement homes, schools and other big institutions. In 2017, Markas's revenue totalled about EUR 190 million in Italy, around EUR 50 million in Austria and EUR 10 million in Germany and Romania. Most of Markas's customers are in the public sector. This implies that they are highly impacted by EU and national public procurement regulation as well as by trade barriers in services.

The EU Directive on Public Procurement from 2014 had the goal of reducing trade barriers for foreign service providers. The Directive has been implemented differently across EU Member States, which imposes costs for EU service providers.

Markas has, for example, experienced that the national implementation of the EU Directive in one Member State has added a certain degree of complexity to the public procurement procedures compared to the implementation of the Directive in Austria. The higher level of complexity in the national implementation in that Member State has resulted, for example, in longer times for awarding contracts, the need to produce more documentation during the tendering process and a higher risk of appeal cases in situations where a tender has been won. Markas identifies the added legal complexity and the resulting legal insecurity as one of the main reasons why some foreign service providers might think twice before entering the Italian public procurement market.

Source: Copenhagen Economics based on an interview with Markas

1.4 POTENTIALS FROM IMPLEMENTING AND ENFORCING THE SERVICES DIRECTIVE

The Services Directive covers the following sectors: Tourism, Cultural and sport activities, Wholesale and retail, Construction, Real estate, Business services, and Other services.³ Covering services that account for more than 46 per cent of EU GDP, the Services Directive is one of the key instruments put in place by EU policy makers to implement the Single Market for services.

Following its adoption in 2006, Member States were given three years (i.e. until late 2009) to transpose the Directive into national law. An interim assessment has found that the full impact of the Directive is an additional 2.6 per cent to EU GDP.⁴ By 2014, the Directive was not fully implemented and enforced in all Member States and much of this gap is likely to remain.

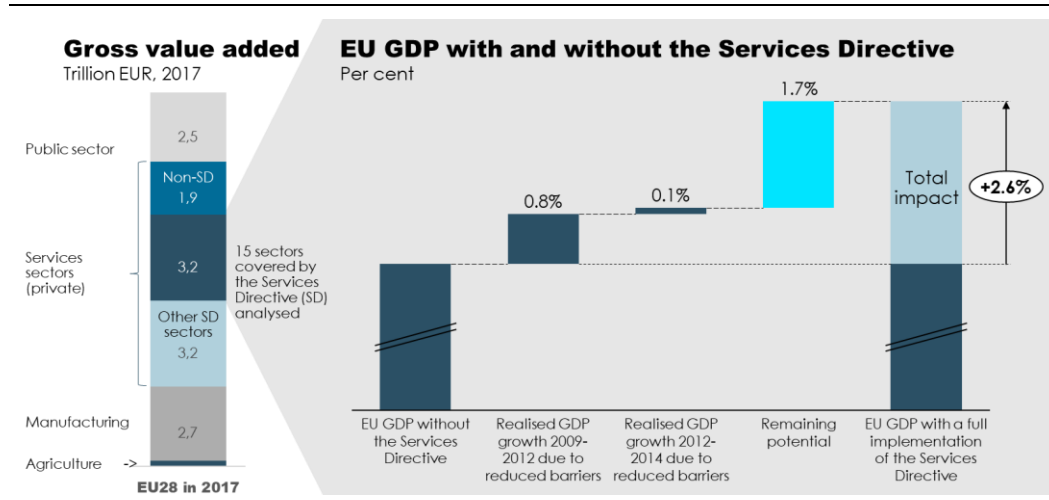
³ See European Commission (2012).

⁴ The assessment covers 15 selected services sectors in the EU27 and with data for 20 specific authorisations or requirements. Not all sectors affected by the Directive are included in the analysis. The 15 sectors represented approximately 20 per cent of EU GDP and around half of the GDP covered by the Services Directive. This also means that some relatively large sectors are left out, notably wholesale. According to the authors of the study, the study covers those sectors which "seem to be more affected across a large number of Member States by the Directive's provisions", cf. European Commission (2012), page 17.

The European Commission has estimated that EU GDP would have been 1.7 per cent higher in 2014 if all EU Member States had moved to the level of restrictiveness of the five best countries at the time within each sector (within the sub-set of services covered by the assessment), cf. Figure 6. The assessment covers a sub-set of services that amounts to around 20 per cent of EU GDP, which is half of what is covered by the Services Directive. The remaining potential of a full implementation of the Services Directive for all services covered by the Directive is thus more than a 2 per cent addition to EU GDP.

According to the European Commission, the services falling under the Services Directive account for an increasing share of EU GDP (up from 40 per cent in 2012), which makes it increasingly important to close the implementation and enforcement gap for the Services Directive.⁵ Going forward, the least restrictive countries may be used as examples of best practices in terms of reducing trade barriers.

Figure 6
EU GDP with and without the Services Directive



Note: The full implementation of the Services Directive reflects a scenario where all Member States achieve a restrictiveness level that resembles the five least restrictive Member States.

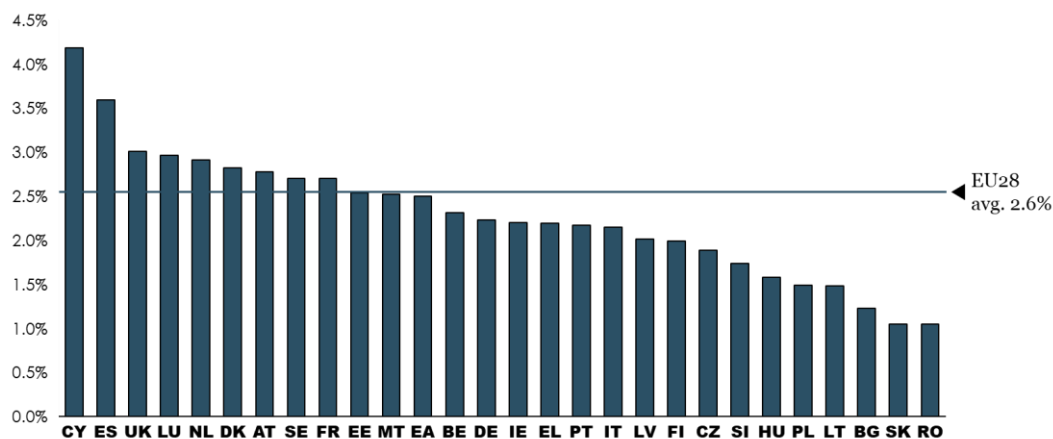
Source: Copenhagen Economics based on Montegudo et al. (2012) and European Commission (2014)

All Member States stand to gain from a full implementation and enforcement of the Services Directive, and therefore have an interest in pursuing further integration of the Single Market, but gains are not equally distributed across countries. The average impact from full implementation is a 2.6 per cent addition to GDP. Some of the smaller Member States, including Cyprus, Luxembourg, the Netherlands, Denmark, Austria and Sweden, would have an impact of 3 to 4 per cent of GDP, cf. Figure 7. The small size of the domestic market in these countries makes them more dependent on trade than larger countries. A Single Market will expand the size of the addressable market and make it easier for SMEs to scale-up. Likewise, smaller Member States benefit from opening their markets to foreign firms.

⁵ Montegudo, Rutkowski and Lorenzani (2012) and https://ec.europa.eu/growth/single-market/services_en.

Some of the large Member States such as Spain, the UK and France will also have larger than average impacts – either because they have high remaining barriers or because they have highly competitive services sectors. For all Member States, lower trade barriers will allow businesses to better engage in global value chains and enhance their global competitiveness.

Figure 7
GDP impacts with full implementation of the Services Directive
 Per cent

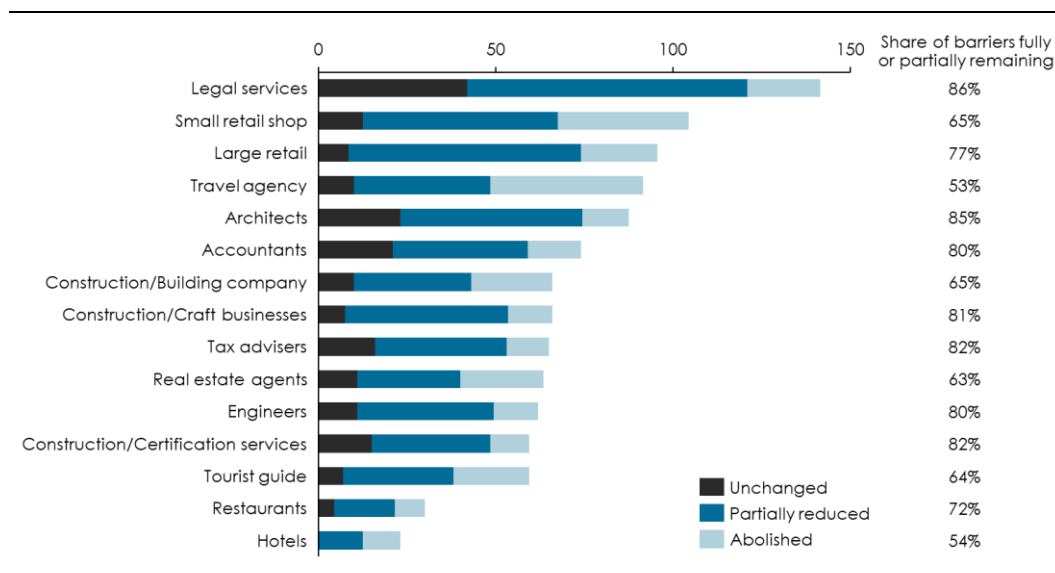


Note: The full implementation of the Services Directive reflects a scenario where all Member States achieve a restrictiveness level that resembles the five least restrictive Member States within each of the 15 sectors covered by the impact assessment.

Source: Copenhagen Economics based on Montegudo et al. (2012)

According to the assessment by the European Commission, a large number of barriers to trade in business services (e.g. legal services, architects, accountants and tax advisors) remain or have only been partially abolished by the Services Directive, cf. Figure 8. While the seriousness of barriers is also a relevant factor, a high number of barriers will in itself be limiting intra-EU trade because businesses face a fragmented set of regulations that tend to cumulate over the value chain. As explained later in the report, even the full implementation of the Services Directive does not provide everything that is needed to capture the full potential of a Single Market (e.g. in terms of the digital economy).

Figure 8
Reduced or remaining barriers in services sectors in the EU, 2009-2014
 Number of barriers



Note: Based on existing barriers in 2009. Potential new barriers are not included. The share of barriers remaining include both unchanged and partially abolished barriers.

Source: Copenhagen Economics based on European Commission (2014)

Construction is in principle covered by the Services Directive, but trade cost reductions have been limited and intra-EU imports account for a low share of total demand. A study from Estonia suggests that part of the explanation for the low level of intra-EU trade in this sector is the large number of requirements (>20) and the number of organisations a business needs to interact with (~10) pose a burden and a risk for construction firms, cf. Box 2. Construction accounts for a significant share of EU value added, and lowering barriers to trade in construction services could be a priority going forward. This conclusion is in line with the priorities of the European Commission (2012) to focus its efforts on those services sectors with significant economic weight and with above average growth potential: Business services, construction, tourism and retail.

Box 2 Complexities for Estonian construction firms to serve the Finnish market

An in-house study from Estonia has mapped all the required steps relating to the provision of construction services within the Single Market as illustrated by exports from Estonia to Finland and Sweden benchmarked against Estonian regulation. Preliminary findings from the study indicate that:

- There are no substantial differences in the three Member States' requirements;
- None of the steps or requirements appear particularly difficult to fulfil in relation to others;
- Fulfilling the requirements does not appear to be excessively time consuming or involving high costs. The only exception seems to be the recognition of professional qualifications which may take months, but such qualifications are not always required, the process is rarely used and there are relatively simple workarounds;
- The large number of requirements (>20) and the number of organisations a business needs to interact with (~10) pose a burden and risk for construction firms.

The study also looked at the possibilities for cross-border data exchange. Since the information requirements are mostly simple registrations (e.g. ID information and specific dates), the study finds that there is relatively low potential for cross-border data exchange. However, there is substantial potential for data exchange and implementing the 'once only' principle within Member States.

The study puts forward the following recommendations:

- Carrying out further such sectoral mappings in other Member States and sectors would help policy makers, legislators and public service owners to identify relatively low user satisfaction rates and therefore areas for improving the functioning of the Single Market;
- Such mappings should be made publicly available since they are already in themselves valuable for businesses;
- The Commission and Member States could look at possibilities for reducing (or limiting to one) the number of contact points to provide information about requirements and other interactions.

Note: The study is based on ten expert interviews with five construction company representatives and five accounting companies, where all claims from relevant Estonian, Finnish and Swedish legislation have been fact-checked by experts at the relevant Estonian authorities.

Source: Estonian Ministry of Economic Affairs (2018), see <https://www.mkm.ee/en/objectives-activities/european-union-and-international-co-operation/mapping-cross-border-provision>

1.5 POTENTIALS GO BEYOND THE SERVICES DIRECTIVE

In parallel with the implementation of the Services Directive, sector-specific EU regulation has also brought down barriers to trade in financial services, transport, energy, telecommunications, postal services and broadcasting.⁶ Following the end of roaming charges across the EU last year, for example, tourists can now use mobile subscriptions without extra costs.⁷ In addition, new data protection rules ensure all EU citizens have better control over their personal data.

From a business perspective, developing a Single Market for services is an ongoing process that needs regular updating, and the full potential of a Single Market for services goes beyond the sectors covered by the Services Directive and the trade barriers addressed by the Directive. Within this process, social security systems in many EU Member States may need time to adjust and adapt to ensure the continued protection of EU workers.

Free movement of workers

The free movement of workers is a fundamental principle of the Single Market. EU citizens are entitled to look for a job in another EU Member State, to work there without needing a work permit, to reside there for these purposes without needing a residence permit, to remain for a certain period even after employment has ended, and to enjoy equal treatment with national workers.⁸ In 2016, 4 per cent (11.8 million) of EU citizens of working age were living in another EU Member State than their country of citizenship.⁹

EU movers are, in general, well integrated within labour markets in most countries. At the aggregate EU level, 72 per cent of the national population is employed, whereas 75 per cent of citizens originating from other Member States are employed.

The free movement of labour creates easier access for companies to attract workers with the right competencies from other EU countries. A common pool of labour can ease bottlenecks in Member States in need of labour and reduce unemployment in other Member States. In the Czech Republic, for example, unemployment is around 3 per cent, and the country is lacking 300,000 skilled workers. Some companies are even putting ads in papers in Italy, Spain and Portugal to attract many of the unemployed in those countries.¹⁰ Labour mobility across borders also enables foreign businesses that expand across borders to bring staff from their home country, and the free movement of labour is thus an essential element in the business model of international service providers.

In some Member States, it is burdensome for local businesses to get an overview of local requirements related to the temporary location of workers in other Member States, cf. Box 3. High compliance costs and legal uncertainty create hindrances to cross-border trade and are examples of the untapped potential of the Single Market.

⁶ See initiatives listed by DG Growth at https://ec.europa.eu/growth/single-market/services_en.

⁷ See the European Commission at <https://ec.europa.eu/digital-single-market/en/faq/question-and-answers-roaming>.

⁸ The European Commission at <http://ec.europa.eu/social/main.jsp?catId=457&langId=en>.

⁹ This section draws on European Commission (2018).

¹⁰ Czech Chamber of Commerce at https://www.komora.cz/tiskova_zprava/kvuli-rekordnimu-poctu-ne-obzarenych-pracovnich-mist-dojde-letos-k-obrovskym-skodam-v-ceske-ekonomice/.

Box 3 Temporary movement of workers is key element in business models

Kompleet A/S specialises in retail design and the construction of restaurants, shops, showrooms and fairs. The company employs 40 people from Denmark, Germany, the UK, and Iceland, and carries out short and specialised projects across the Single Market.

The design concept of a specific store is developed in continuous dialogue with the customer. To do the actual shop fitting, Kompleet typically moves a site manager and a couple of craftsmen but hires local freelance staff. For tasks requiring authorisation such as electrical installations, it is often necessary to hire local subcontractors. Building materials are usually purchased locally, and equipment, such as lifts, is rented locally.

The possibility of delivering the company's know-how and services throughout the Single Market is important and allows the company to scale cross-border. The staff has also gained new knowledge from doing business abroad, both personally and professionally. However, it is burdensome to get a full overview of all the different requirements that the company, its subcontractors, and suppliers need to comply with when entering a new market, including:

- Where to register or notify the company before commencement of work;
- Tax and VAT rules;
- Building regulations and product rules;
- Different disciplines and responsibilities in the construction process;
- Conditions of employment, rules on social security and taxes as well as notification of assigned employees;
- Different rules for different nationalities in a project team working on the same task;
- Requirements related to the working environment, special ID cards for construction workers, certificates and employee approvals (lack of recognition of professional qualifications), or approval schemes for equipment and machinery.

Kompleet would appreciate having one single authority in each country that could provide the company with a checklist of everything that is required to undertake a job in each particular Member State.

Source: Danish Business Authority (2018)

The free movement of workers is not always without costs. There are big differences in the way different EU Member States have organised benefits, healthcare and other social security services. Each EU country has its own laws determining what benefits laid off workers are entitled to, how much they will receive and for how long. Furthermore, laws vary with respect to how long laid-off workers must have worked in a particular country before qualifying for unemployment benefits, the rules for calculating benefits and the duration of the benefits.

Some countries may experience that labour mobility puts a pressure on their social systems. Some workers may also experience that labour mobility puts a downward pressure on wages. However, stalling progress in further deepening of the Single Market means that Member States are losing out on economic gains that will eventually result in citizens being left less well-off.

CHAPTER 2 - KEY FINDINGS

THE SERVICES SECTOR AND THE EU'S GLOBAL COMPETITIVENESS

The IMF, World Economic Forum and OECD all agree that strengthening the Single Market is key to securing the EU's place at the forefront of the global economy.



EU share of World value added

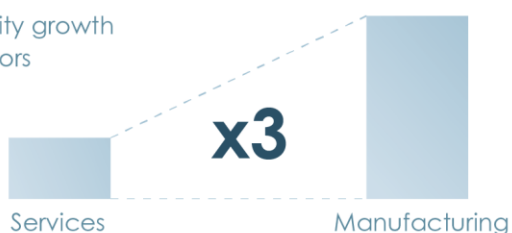


Measured both in terms of trade, foreign direct investment, population and size of the economy, the EU's share of the global economy is shrinking.

Brexit is likely to reinforce the downward trend in the EU's global position and may disrupt EU value chains.



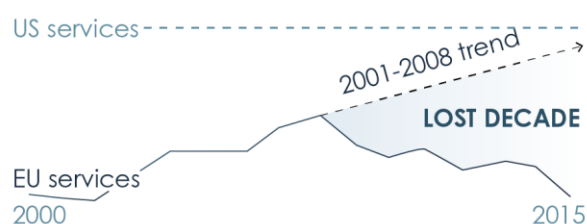
Productivity growth in EU sectors



Productivity growth in the EU manufacturing sector has been three times greater than productivity growth in the EU services sector.

The period after the crisis reflects a lost decade, where the divergence of EU productivity in services vis-à-vis the US after the crisis has fully eroded the catching up achieved before the crisis.

Labour productivity in EU services compared to US Services

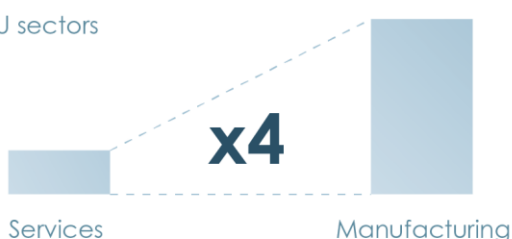


The Single Market is imperative to enhancing productivity in the services sector and a full implementation of the Services Directive in a sub-set of 15 sectors alone can increase EU productivity in services by 9%.

9%
higher
productivity
in services



SMEs in EU sectors



SMEs in the services sector are on average four times smaller than SMEs in manufacturing, and deepening the Single Market for services will be particularly beneficial for SMEs because barriers tend to accumulate over the value chain.

CHAPTER 2

THE SERVICES SECTOR AND THE EU'S GLOBAL COMPETITIVENESS

The EU is the second-largest economy in the world after the US, but the EU's share of the global pie is shrinking. In this chapter, we analyse how the services sector impacts the EU's global competitiveness. Section 2.1 looks at the EU's diminishing economic position in a global context. Section 2.2 looks at how low productivity growth and an ageing population are putting EU prosperity under pressure. Section 2.3 looks at how a Single Market for services can enhance productivity, and Section 2.4 looks at how the Single Market offers scale-up opportunities to SMEs within the services sector.

The chapter highlights the following findings:

- The IMF, World Economic Forum and OECD all agree that strengthening the Single Market is key to securing the EU's place at the forefront of the global economy;
- Measured both in terms of trade, foreign direct investment (FDI), population and size of the economy, the EU's share of the global economy is shrinking. Had the EU maintained its share of World imports since 2010, it would have supported one million jobs, and an additional EUR 250 billion would have been invested if the EU had maintained its share of World FDI over the same period;
- Brexit is likely to reinforce the downward trend in the EU's global position and may disrupt EU value chains, the location decision of multinationals within the EU and reduce the overall FDI attractiveness of the EU;
- Productivity growth in the EU manufacturing sector has been three times greater than productivity growth in the EU services sector;
- The productivity level of EU services is only half that of the productivity of US services, and the period after the crisis reflects a lost decade, where the divergence of EU productivity in services vis-à-vis the US after the crisis has fully eroded the catching-up achieved before the crisis;
- Low economic growth, slow productivity growth and an ageing population puts EU future prosperity under pressure;
- A full implementation and enforcement of the Services Directive in a sub-set of sectors that amount to around 20 per cent of EU GDP will enhance the productivity in these services by an average of around 9 per cent;
- SMEs in the services sector are on average four times smaller than SMEs in manufacturing and deepening the Single Market for services will be particularly beneficial for SMEs because barriers tend to accumulate over the value chain.

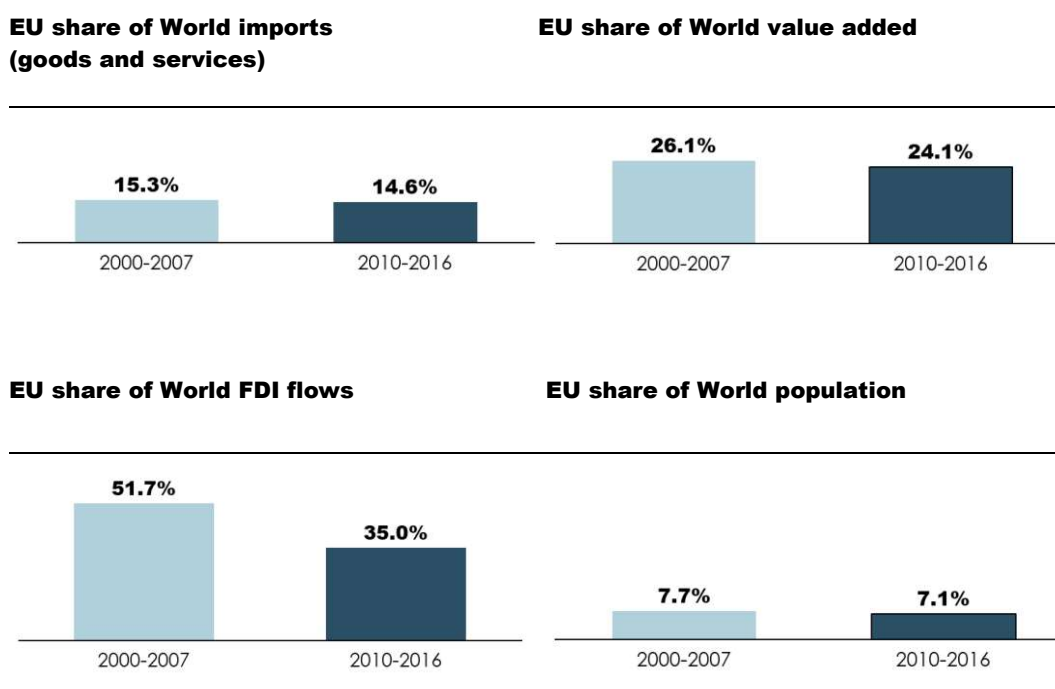
Taking the size of the services sector and the slow productivity growth into consideration, restoring EU global competitiveness and securing future EU prosperity without reforms of the services sector seems like a difficult task. A better functioning Single Market for services is essential for improving the productivity of the services sector.

2.1 THE EU IS LOSING ECONOMIC STRENGTH

The recovery of the EU economy after the crisis has been slow, and the EU is losing economic strength. Measured both in terms of trade, foreign direct investment (FDI), population and size of the economy, the EU's share of the global pie is shrinking, cf. Figure 9. The EU share of global trade in goods and services has fallen from 15.3 per cent in 2000-2007 to 14.6 per cent in 2010-2016, which suggests that the competitiveness of EU businesses is under pressure. A drop in the global market share of 0.7 percentage points may not sound significant, but a maintained EU share of World imports over this period would have supported one million jobs in the EU.¹¹

The EU share of global value added has dropped by 2 percentage points after the crisis from 26 per cent to 24 per cent. If this trend continues at the same rate, the EU's share of global value added will be an additional 3.5 percentage points lower by 2030.

Figure 9
The EU is losing economic strength



Note: In top left figure, rest of World's imports (goods and services) are calculated as the World's total imports less EU27 imports.

Source: Copenhagen Economics based on UN Comtrade and World Bank data

¹¹ Annual EU exports to non-EU countries would on average have been EUR 73 billion larger in 2010-2016 if the EU's market share had been 15.3 per cent instead of 14.6 per cent (based on Comtrade data). The European Commission (2016) estimates that each EUR billion of extra-EU exports support 14,000 jobs in the EU.

As barriers to cross-border trade and investments have been dismantled over the past two decades, worldwide competition for attracting global investment and multinational firms has intensified. Before the crisis, the EU was the destination for more than half of global FDI, but the EU share has only been around 35 per cent on average during 2010–2016. If the EU had maintained its share, an additional EUR 250 billion would have been invested in the EU every year. As FDI is an important source of economic activity and knowledge, the lower EU share of global FDI flows may be a source of concern for EU policy makers, cf. Box 4.

Box 4 FDI inflows can improve global competitiveness and EU productivity

In November 2015 General Electric, an American world leader in power generation, finalised the acquisition of the French Alstom.

Because of the constant increase in energy demand, new generation capacity is required to provide reliable and price-competitive energy supplies. The merger of the American and the French companies responds to this need by integrating Alstom's generation capacity with GE's portfolio and digital expertise. The newly created GE Power Services can benefit from a greater global reach complemented by enhanced local service capabilities. Due to huge investments in software and data analytics undertaken by GE, operators are also able to improve efficiency and overall performance.

The acquisition enabled GE to deliver solutions that improve operators' performance and value through access to technology and expertise resulting in better plant design. In February 2016, GE's Power Service business secured an order valued at USD 86 million to upgrade three gas turbines at Centrica's South Humber Bank, showcasing GE's contribution in helping UK utilities to increase their competitiveness in the power industry.

Source: Copenhagen Economics based on <https://www.powerengineeringint.com/articles/2016/04/how-ge-s-alstom-acquisition-is-helping-power-plant-owners.html>

Empirical evidence suggests that EU membership has increased FDI inflows by about 30–40 per cent,¹² but Brexit may reinforce the negative trend in global FDI flows towards the EU. Without the UK, the EU's share of the global population in 2016 would have dropped from around 7 per cent to less than 6 per cent.¹³ The lower market size may make it less attractive for third countries to engage in free trade negotiations with the EU and to invest in the EU, cf. Figure 10. This is so because market demand is the factor that is most frequently identified as a main driver of the location of FDI.¹⁴ While Brexit will have even more severe consequences for the UK, Brexit may also make the EU business environment more uncertain and disrupt EU value chains, which will also make the EU less attractive for multinational firms compared to locations outside Europe.

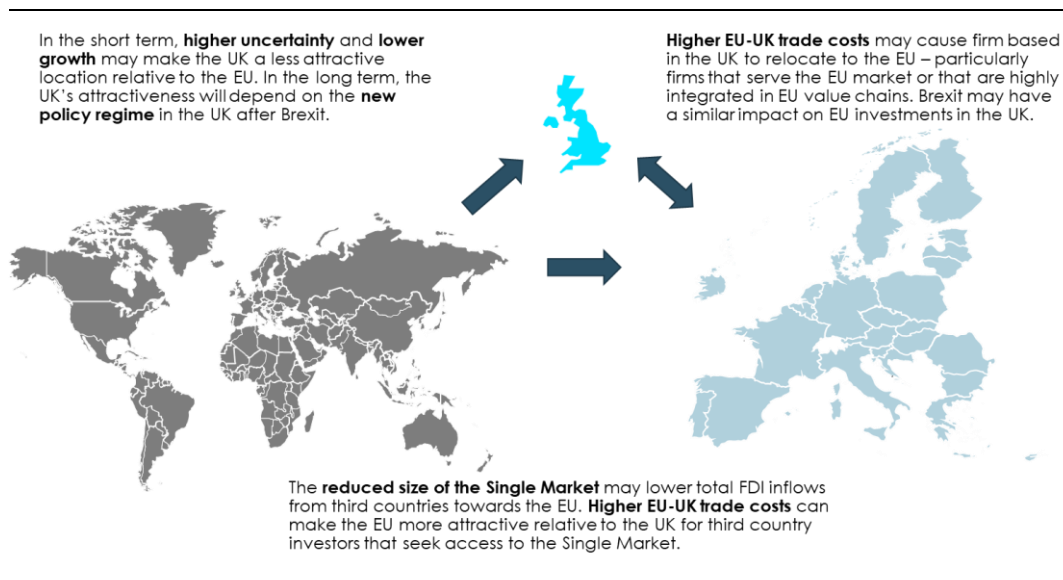
¹² Bruno et al. (2017) estimate an impact of 30 per cent, whereas ECB (2018) finds that the impact is as high as 44 per cent.

¹³ World Banks, WDI table SP.POP.TOTL.

¹⁴ See also Copenhagen Economics (2018).

While still offering access to the Single Market of 450 million people after the UK leaves, Brexit may also offer the opportunity for the EU to attract investments which have until now been located in the UK. For the EU to be attractive for foreign investors from within and outside Europe, it is imperative that the Single Market offers an attractive business climate and ensures a well-integrated regulatory regime. A well-integrated EU market is a key element in ensuring the EU's attractiveness for foreign investment vis-à-vis other advanced markets around the world. The net impact of Brexit on the reallocation of FDI remains to be seen.

Figure 10
Possible impacts of Brexit on the EU's FDI attractiveness



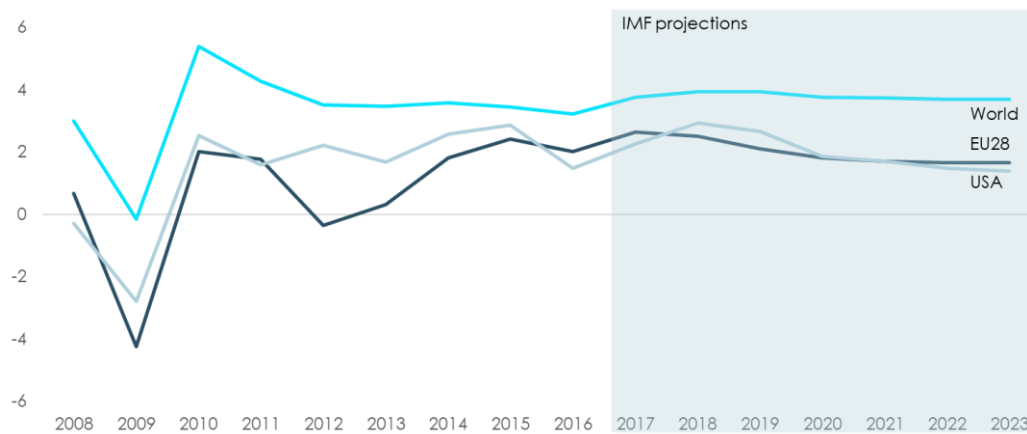
Note: The figure illustrates some of the possible impacts of Brexit on FDI flows towards the EU. Other investment locations may also be indirectly impacted by Brexit, but these impacts are not illustrated in the figure.
Source: Copenhagen Economics (2018)

2.2 EU GROWTH AND PROSPERITY UNDER PRESSURE

According to IMF projections, the recovery of the EU economy after the crisis will slow down, and the EU economy is expected to grow by only around 2 per cent annually over the next five years, cf. Figure 11. This growth is on a par with the US but significantly below the rest of the World, particularly growth in the emerging economies.

Figure 11
Actual and projected real GDP growth in the EU, US and World, 2008-2023

Annual growth in per cent



Note: Growth numbers for the World vary up to 1%-point between World Bank and IMF growth rates.

Source: Copenhagen Economics based on International Monetary Fund

Productivity in the EU manufacturing sector has grown faster than in the EU services sector, particularly after the crisis, cf. Figure 12. Due to the size of the services sector, low productivity in the services sector is a key factor in the weak growth performance of the EU.¹⁵ At the same time, it should be noted – as will be shown in Chapter 3 – that services and manufacturing are increasingly intertwined and contrasting productivity developments in the two parts of an integrated production system should not be over-emphasised.

Low productivity in the services sector is, however, key to overall economic welfare in the EU. The poor productivity development in EU services is quite alarming when comparing with the productivity development in US services. While labour productivity in the EU tended to catch up with the US before the crisis, the gap between EU and US productivity has widened dramatically after the crisis and reflects a lost decade of productivity growth, cf. Figure 12. EU productivity in services is now around half that of the US. Restoring productivity growth in the services sector is key to economic growth and will help secure EU competitiveness and jobs going forward.

There are several reasons for the increasing productivity gap vis-à-vis the US. *First*, we have seen large drops in productivity levels across all EU services sectors in 2009. This did not happen to same extent in the US in 2009. *Second*, the actual number of working hours per employee (in total across all sectors of the economy) went up in the US after the crisis, whereas it continued to fall in the EU along the pre-crisis trend. This matter when productivity, as in Figure 12, is measured per person employed. *Third*, we see significantly larger productivity increases in IT services in the US than in the EU with much of these increases being driven by the large US tech giants. *Finally*, we also see extremely high productivity levels in professional services such as legal, accounting, architecture and engineering services in the US, and these sectors are both growing their productivity and increasing their size in the overall US services sector.

¹⁵ Productivity is measured as gross value added (GVA) and is based on OECD data.

Behind most of these factors is a common denominator, namely the major difference in the size of the home market in the EU versus the US. In the US, there are few regulatory barriers preventing a firm from considering all US states as its home market. Although equally advanced and as well equipped with knowledge and R&D as the most advanced US state, firms in the EU have a smaller home market, particularly in the smaller Member States. These firms would need many countries or potentially all of Europe as their home market to have the same conditions to grow as an identical US firm.

The lack of a large home market is increasingly important in the current ‘winner-takes-it-all’ digital markets. US tech firms have taken full advantage of the new technological opportunities and have succeed at home before expanding abroad. EU firms, especially those facing small home markets and with service barriers keeping them out of larger markets in the EU, are having a harder time competing in these digital markets.

The numbers speak for themselves. In the US, more than 58 per cent of all companies have grown to have more than 250 employees. In Germany, known for its successful businesses, the number is 37 per cent and the same is true for France.¹⁶

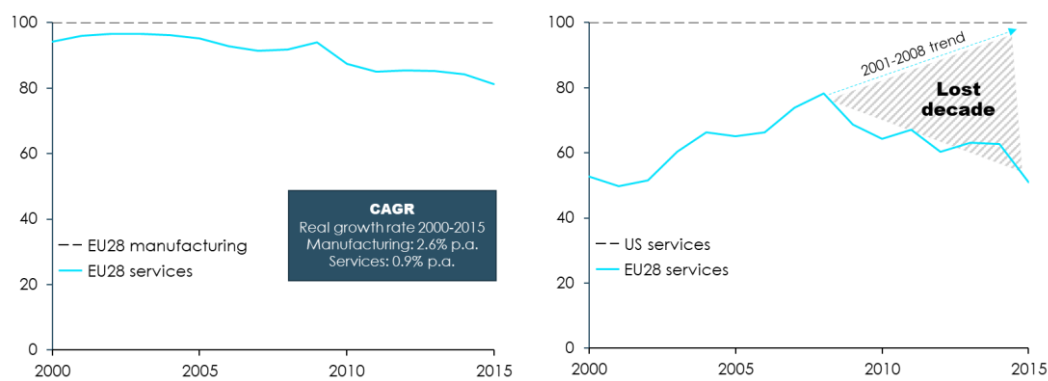
Figure 12 Labour productivity comparisons

EU services compared to EU manufacturing

EU manufacturing = 100

EU services compared to US services

USA = 100



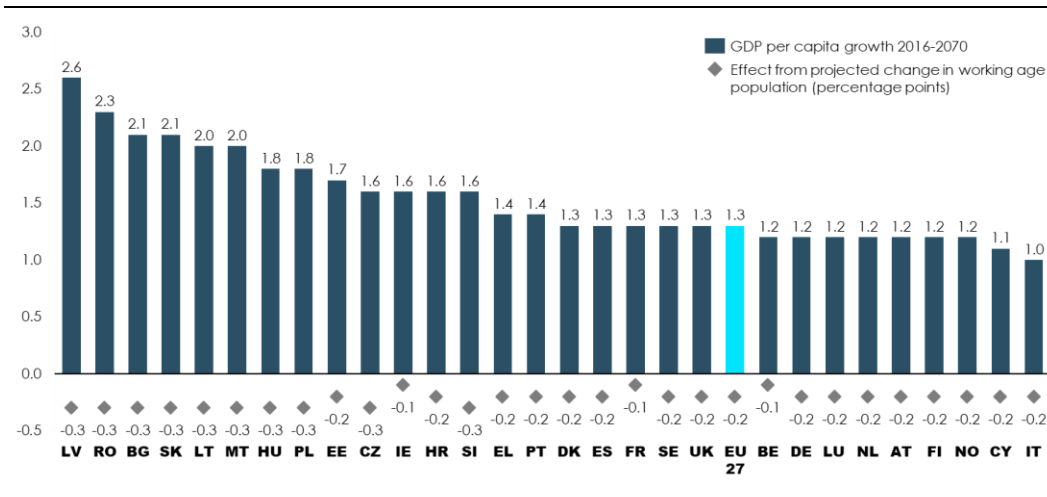
Note: Left figure: Labour productivity is calculated as value added per hour worked. Services include wholesale and retail, transportation and storage, accommodation and food services, information and communication, financial and insurance, legal and accounting, scientific research, administrative and support service activities, arts entertainment and recreation, and other service activities. Right figure: Labour productivity is calculated as value added per person employed to ensure comparability with the US data. The comprehensive coverage of services allowing for like-for-like comparison is used.

Source: Copenhagen Economics based on OECD data

¹⁶ See Atkinson (2018).

The problem with low economic growth and slow productivity growth facing some Member States is exacerbated by an ageing population which puts a pressure of EU welfare systems. The European Commission (2018) projects that the ageing population (increase in people aged 65 or above relative to those aged 15-64) will increase the pressure significantly in the EU in the coming decades. For the EU, GDP per capita is expected to grow by 1.3 per cent annually towards 2070, and this growth rate is pulled down by -0.2 percentage points due to the ageing population. Over time, real wages and prosperity will suffer from low projected economic growth rates, slow productivity growth and an ageing population.

Figure 13
Potential GDP per capita growth in Europe, 2016-2070
 Per cent



Note: EU27 includes all EU Member States except the UK.
 Source: Copenhagen Economics based on European Commission (2018)

Higher productivity will increase GDP per capita. When workers are highly productive, they create high value added for every hour they work. This enables companies to pay higher wages, and high productivity is thus related to high prosperity. EU workers can turn high wages into more consumption of goods and services, or - over time see the working week being reduced and enjoy more leisure. A highly productive workforce also supports the global competitiveness of EU businesses. Tax revenue from exporters and their positive knock-on impacts on suppliers increase tax revenues and open up more choices for national and EU policy makers. Higher productivity in the services sector is thus associated with higher prosperity in the EU.

2.3 A SINGLE MARKET FOR SERVICES CAN ENHANCE PRODUCTIVITY

Lower barriers to cross-border provision of services within the Single Market can improve productivity by strengthening competition and allowing for scale economies and specialisation. The IMF, World Economic Forum, OECD and the European Parliament all agree that strengthening the Single Market is key to securing the EU's place at the forefront of the global economy.¹⁷

As mentioned in Chapter 1, a better functioning Single Market for services will enhance cross-border trade and investments within the EU services sector and increase EU GDP. The transmission mechanism by which EU GDP increases is via higher productivity in the EU services sector.

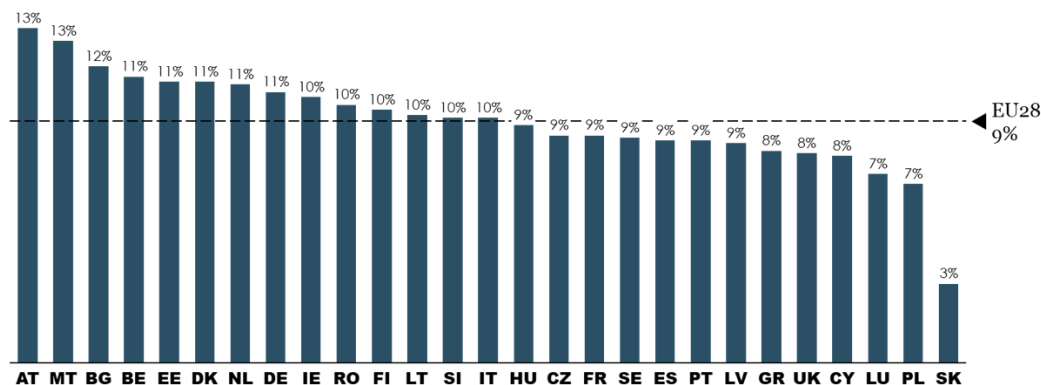
The implementation of the Services Directive alone has a remaining potential to increase the productivity level in 15 selected services sectors by an average of 9 per cent across Member States.¹⁸ Implementing the remaining potential of the Services Directive in these 15 sectors will have a positive impact on productivity across Member States. Some of the smaller countries, such as Austria, Malta, Bulgaria and Belgium, are among the Member States that will realise the largest productivity gains from closing the implementation gap, cf. Figure 14.

Trade restrictions are particularly costly for smaller Member States where the size of the local market is insufficient to secure efficient competition, scale and, consequently, productivity. But the largest EU Member States will also improve their productivity if the Services Directive is fully implemented. Germany (11 per cent increase in productivity), France (9 per cent increase) and Spain (8 per cent increase) are some of the large Member States that will benefit from implementing the remaining potential of the Services Directive.

¹⁷ For example: the IMF (2014) states that 'although well-functioning services are key for growth, they are not yet delivering their full potential'; the World Economic Forum (2013) notes that 'full implementation of the Single Market, including services and sectors that until now have remained protected at the national level, could make markets work better for Europe'; the OECD (Economic Surveys European Union, 2014) recommends that the EU 'improve the implementation of the Services Directive, in particular by eliminating unjustified and disproportionate restrictions to the cross-border provision of services and to the establishment of businesses' and the European Parliament (2015) maintains that 'a further deepening of the 'classic' Single Market could still yield very significant additional gains for EU consumers and citizens.'

¹⁸ See European Commission (2012).

Figure 14
Remaining potential of the Services Directive on productivity levels in the analysed services
 Per cent



Note: The assessment covers 15 selected services sectors in the EU27. Not all sectors affected by the Directive are included in the analysis. The 15 sectors represented approximately 20 per cent of EU GDP which is around half of the GDP covered by the Services Directive. The full implementation of the Services Directive reflects a 'what if' scenario where all EU Member States move to the level of restrictions of the five best countries at the time within each sector within the sub-set of services covered by the assessment. The results shown are the additional impact under the so-called 'what if' scenario in the study net of the impact under the 'central scenario'.

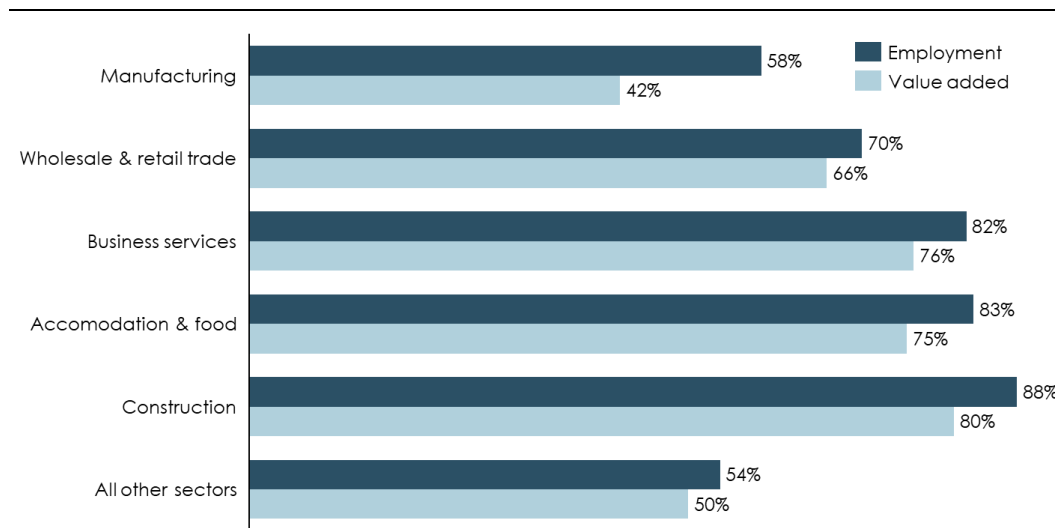
Source: Copenhagen Economics based on Monteagudo et al. (2012)

2.4 LOWER TRADE BARRIERS CAN BENEFIT SMALL FIRMS

SMEs are highly important for the EU economy. All but 0.2 per cent of enterprises which operated in the EU non-financial business sector in 2016 were SMEs.¹⁹ These SMEs employed 93 million people, accounting for 67 per cent of total employment in the EU non-financial business sector and generating 57 per cent of value added in the EU non-financial business sector. Within the non-financial business sector, SMEs play a particularly important role in accommodation and food services, business services and construction services, where they accounted for more than 80 per cent of EU employment in 2016, cf. Figure 15.

¹⁹ This section focuses on SMEs in the non-financial business sector in line with European Commission (2017). The non-financial business sector consists of all sectors, except 'financial services', 'government services', 'education', 'health', 'arts', 'culture' and 'agriculture, forestry and fishing'.

Figure 15
SME shares in the EU28 non-financial business sector, 2016
Per cent



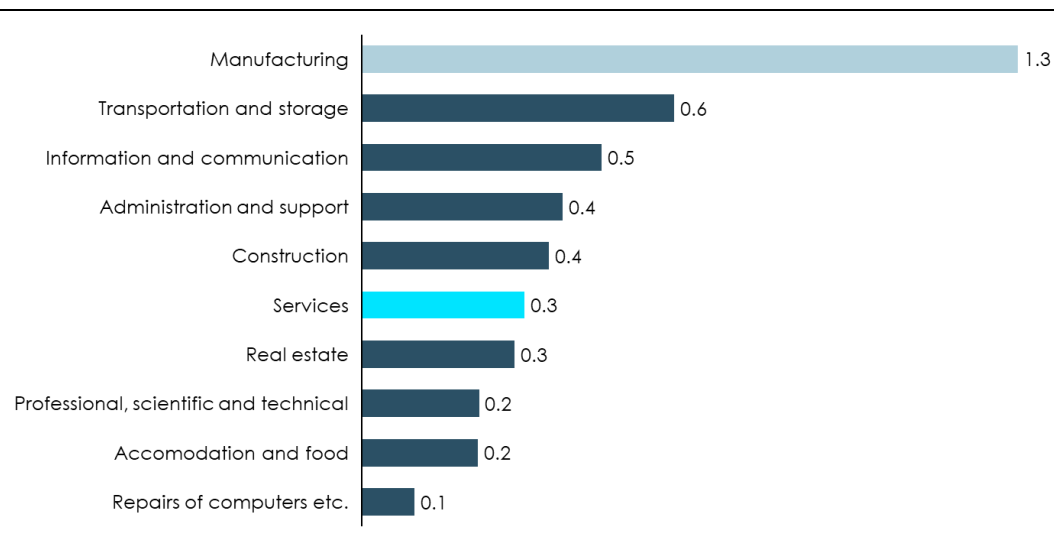
Source: Copenhagen Economics based on European Commission, Eurostat, National Statistical Offices, and DIW Econ

SMEs in the services sector are smaller than in the manufacturing sector with an average turnover of EUR 0.3 million across the services sector compared to EUR 1.3 million in the manufacturing sector, cf. Figure 16. The Single Market can make it easier for EU SMEs to realise their growth potential by expanding abroad and engaging in global value chains.²⁰ Early work by the European Commission demonstrates that even seemingly manageable regulatory heterogeneity can be costly for EU businesses, and hence for EU citizens, because barriers tend to accumulate over the value chain (e.g. from establishment and purchase of inputs to promotion, distribution and sales of services and eventually to after sales services).²¹ A fragmented Single Market increases the fixed costs of entering new markets, and enhanced integration of the Single Market will be particularly important to the growth prospects of EU SMEs.

²⁰ See, among others, Copenhagen Economics (2018) on the outward investment patterns of European SMEs.

²¹ European Commission, COM (2002) 441 of 30 July 2002, pp. 58-59.

Figure 16
Turnover per EU SME across sectors, 2016
EUR million



Note: The Irish services sectors data are not available and are therefore not included. SMEs are defined by the European Commission as having less than 250 persons employed, an annual turnover of up to EUR 50 million, or a balance sheet total of no more than EUR 43 million.

Source: Copenhagen Economics based on Eurostat data

CHAPTER 3 - KEY FINDINGS

SERVICES TRADE AND GROWTH OF TOMORROW

In some of the most competitive manufacturing countries, services functions make up more than half of the jobs within manufacturing.

More than 14 million jobs in the EU are services jobs within manufacturing, and accounting for these there are more EU export jobs in services than in manufacturing.



14 million service jobs within manufacturing

Share of services within manufacturing



The process of servitisation has increased in the EU over the past decades, with the services share of value added in manufacturing increasing from 20 per cent in 1995 to 27 per cent in 2011.

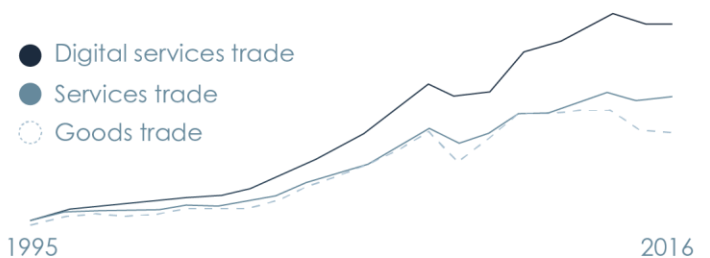
EU manufacturing firms are more servitised than US firms, 27% of EU value added in manufacturing are generated by services compared to 20 per cent in the US.

Per cent of services generated value in manufactured goods



The price of services in the EU is on average 11 per cent higher than US prices. Further integration of the Single Market for services can help bring down prices and improve EU competitiveness.

Trade in digital services has grown faster than services in general and much faster than trade in goods, and the digital transformation holds a significant potential for the EU economy.



Total R&D expenditure



The services sector accounts for around 35 per cent of total R&D expenditure in the EU and for around half of private innovation expenditure.

30 services are required to get a loaf of bread into a shopping basket, accounting for 72% of the final price.



CHAPTER 3

SERVICES TRADE AND GROWTH OF TOMORROW

In this chapter, we look at services trade and three sources of EU competitiveness. Section 3.1 looks at services trade and the increasing service elements of manufacturing (so-called *servitisation*). Section 3.2 looks at services trade and the on-going digitalisation of our economies and in Section 3.3 we look at services trade and the take-up of new technologies such as artificial intelligence and big data. These three areas are obviously closely linked.

The chapter highlights the following findings:

- In some of the most competitive manufacturing countries in the EU, such as Germany and Sweden, service functions account for more than half of the jobs within manufacturing. The same is true in non-EU countries such as Switzerland;
- More than 14 million jobs in the EU are service jobs within manufacturing, and accounting for these, there are more EU export jobs in services than in manufacturing;
- The process of servitisation has increased in the EU in recent decades, with the service share of value added in manufacturing increasing from 24 per cent in 1995 to 27 per cent in 2011;
- EU manufacturing firms are more servitised than US firms: 27 per cent of the value added of manufactured goods in the EU is generated by services compared to 20 per cent in the US, and the growth and competitiveness of EU manufacturing is therefore deeply intertwined with the services sector;
- The price of services in the EU is on average 11 per cent higher than US prices;
- Trade in digital services has grown faster than services in general and much faster than trade in goods;
- Some of the EU's smaller, service-orientated economies are performing above average when it comes to low restrictions to digital trade, while some of the larger economies such as Germany, France and Italy are lagging. Even the best EU countries are lagging the lead country, New Zealand, while being more open than the US and particularly China;
- The services sector accounts for around 35 per cent of total R&D expenditure in the EU and for around half of private innovation expenditure;
- Europe, while still making progress, is behind the US and China in capturing the opportunities of digitisation, artificial intelligence and automatization. For EU businesses, the successful and timely adoption of these evolving technologies will significantly enhance performance and can be a competitive advantage and differentiator.

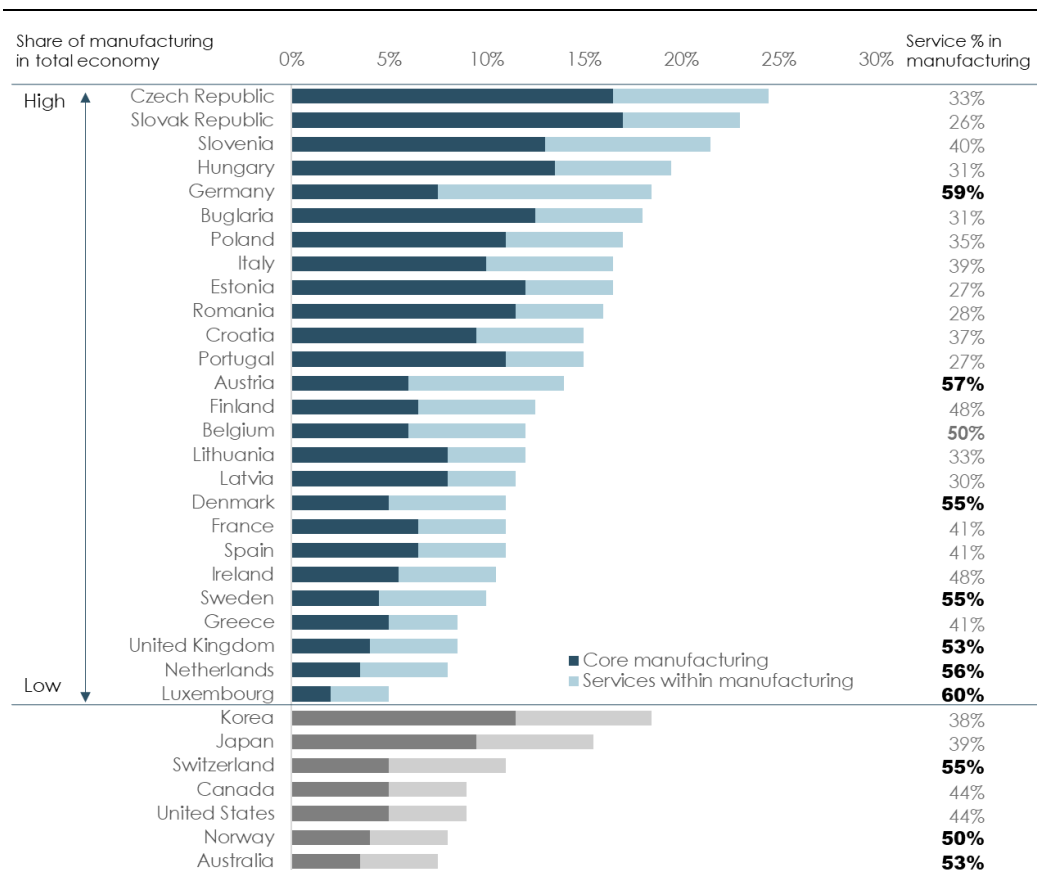
The pervasive nature of new digital technologies and the ever-increasing servitisation of the modern economies is resulting in blurred lines between services and manufacturing and makes the distinctions between digital and non-digital services or business close to meaningless. Digital technologies also provide for unprecedented potential for the cross-border delivery of some services, especially services where local presence is not a necessity (e.g. professional services). Developing efficient policies that support all EU businesses thus requires that the relations between industrial policy, Single Market policy and digitalisation are properly understood and considered.

Across all these areas, we find that a better functioning Single Market for services can improve the global competitiveness of EU firms and offer EU businesses the flexibility to choose their optimum business model.

3.1 THE INCREASED SERVICISATION OF EU MANUFACTURING

Services is an important part of EU manufacturing. OECD data across countries shows that between 25 per cent and 60 per cent of employment in manufacturing firms is made up of service functions within manufacturing, cf. Figure 17. According to Miroudot, and Cadestin (2017), this includes activities such as R&D, engineering, transport, logistics, distribution, marketing, sales, after-sale services, IT, management and back-office support.

Figure 17
Core manufacturing jobs and service jobs within manufacturing, 2015
 Per cent of total employment



Note: Data is from 2012 for Korea, 2010 for Japan, 2014 for Canada and 2011 for Australia.
 Source: Copenhagen Economics based on OECD data

In the EU, there are around 14 million service jobs embodied in EU exports of goods.²² In fact, taking these embodied service jobs into account, the EU has more trade-related jobs in services than in manufacturing.²³ Service jobs within manufacturing make up more than 50 per cent of jobs in manufacturing firms in many advanced and highly competitive manufacturing countries within the EU such as Germany (59 per cent) and Sweden (57 per cent). Outside the EU, this is exemplified by the case of Switzerland (55 per cent).

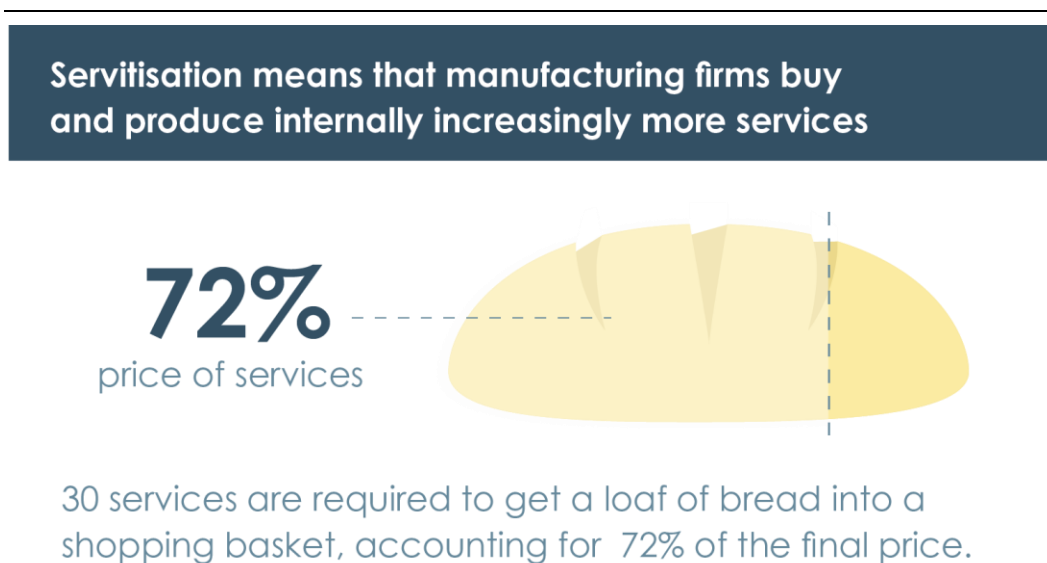
Services also matters from a consumer perspective. Consider a loaf of bread. Producing and delivering a loaf of bread involves around 30 different services which account for 72 per cent of the final

²² See presentation by John Drummond, OECD, 13 October 2017 at European Services Forum.

²³ See presentation by Lucian Cernat, European Commission, DG Trade, 13 October 2017 at European Services Forum.

price, cf. Figure 18.²⁴ In this context, removing all tariffs on the product and aligning product regulation across the EU will not fully bring the benefits to the final consumer if barriers to services are eating up the savings and benefits of lower trade barriers before they reach the consumer. Therefore, it is important to consider all types of barriers to the Single Market, of which the so-called service barriers account for an increasing part.

Figure 18
Servitisation from a consumer perspective



Source: Copenhagen Economics

Increased servitisation is part of manufacturing firms' attempts to maintain or improve global competitiveness. The new services jobs and the growth related to Industry 4.0 are heavily reliant on service skills and data (see also next section).²⁵ Econometric analyses by the OECD have shown that policies restricting trade in services (as captured in the OECD Services Trade Restrictiveness Index) are associated with a lower output of foreign affiliates not only in services industries but also in the manufacturing sector.²⁶ This demonstrates the intertwined nature of manufacturing and services activities in global value chains as well as the manufacturing sector's dependency on a well-functioning Single Market for services.

²⁴ See presentation by Andreas Maurer, WTO, 13 October 2017 at European Services Forum.

²⁵ Presentation by Lucian Cernat, European Commission, DG Trade, 13 October 2017 at European Services Forum.

²⁶ See Andrenelli, A. et al. (2018).

Box 5 Defining servitisation

According to the OECD, *servitisation* refers to the phenomena that the manufacturing sector is increasingly relying on services as inputs, as activities within firms or as output sold bundled with goods.

Manufacturing firms use services when they:

- develop new products (e.g. engineering services)
- produce products (e.g. management consulting)
- distribute products (e.g. transportation)
- sell products (e.g. retail services), and
- provide aftermarket services (e.g. maintenance services)

Manufacturing firms can integrate services either by employing service skills within the firm (e.g. an internal management consulting unit), or by purchasing services from an external supplier (e.g. a management consultancy firm). The purchase of services from an external supplier can either be from a domestic or a foreign supplier. In the latter case, the manufacturing firm becomes dependent on cross-border services trade for purchasing the service from a foreign supplier.

A final element of servitisation is that manufacturing firms are also selling services, which for example is the case when the toy manufacturer LEGO also sells films, or when a wind turbine producer is selling software to optimise the electricity generation for the owner of the windfarm.

Source: Miroudot and Cadestin (2017)

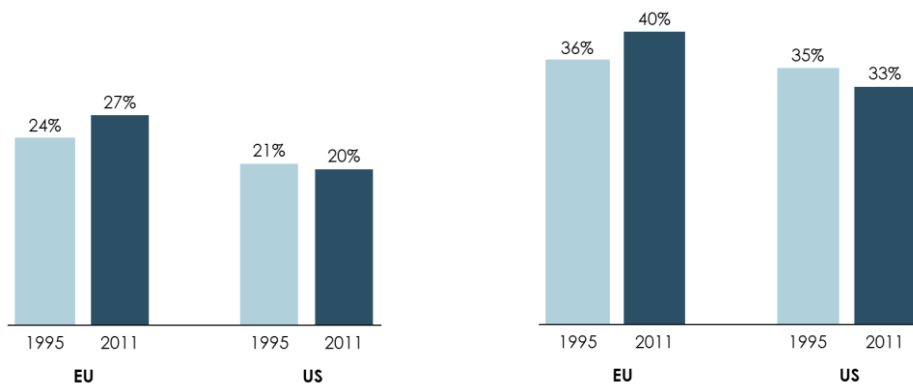
Detailed data show that EU manufacturing firms have become increasingly servitised. In 1995, services accounted for 24 per cent of manufacturing output in the EU, while this figure had increased to 27 per cent in 2011. Measuring the value-added contribution from services in manufacturing in the EU, we see the same tendency with an increase from 36 per cent in 1995 to 40 per cent in 2011, cf. Figure 19.

A comparison with the US also shows that manufacturing firms in the EU use and sell more services (are more servitised) than manufacturing firms in the US, and EU manufacturing exports have a higher share of value added from services than manufacturing exports from the US, cf. Figure 19. The share of service inputs in manufacturing is 27 per cent in the EU compared to 20 per cent in the USA. Similarly, the share of service value added in final manufactured goods is 40 per cent in the EU, compared to 33 per cent in the US. In addition, EU manufacturing firms sell more services. Service output is 5 per cent in EU manufacturing compared to 3 per cent in the US.

Figure 19 The servitisation of EU and US manufacturing

Services output share in manufacturing
Per cent

Services value added share in manufactured
Per cent

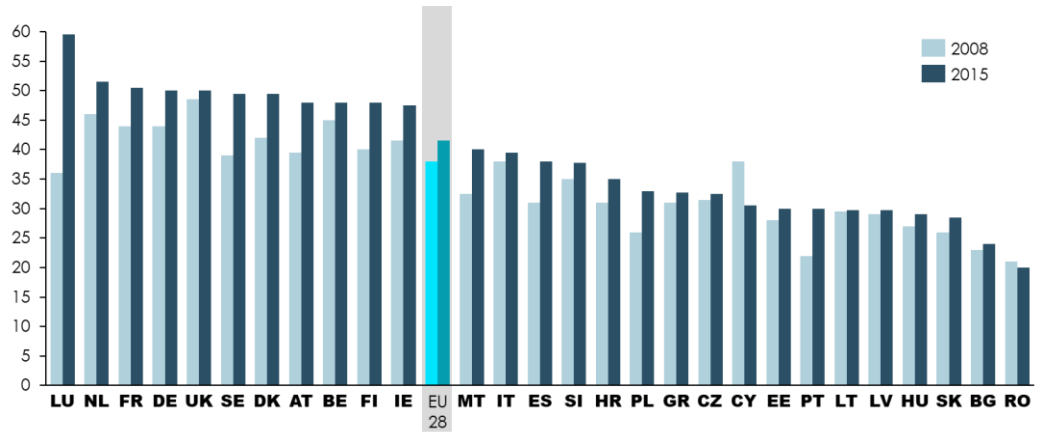


Note: Shares of service value added are computed as % of final manufactured goods.

Source: Copenhagen Economics based on Swedish National Board of Trade (2016) and WIOD

There are large cross-country differences in servitisation within the EU. In some EU countries, servitisation of manufacturing is substantial and increasing significantly over time. This makes services especially important for manufacturing in countries such as the Netherlands, France and Germany, cf. Figure 20.

Figure 20
Service employees in manufacturing as a share of total employees in manufacturing across Member States
 Per cent



Source: Copenhagen Economics based on Swedish National Board of Trade Sweden (2016) and WIOD

Manufacturing firms use and sell services to gain advantages against competitors, strengthen customer relationships, differentiate market offerings and diffuse new innovations, cf. Box 6. As part of the solution, it is proposed to tackle this issue through the Single Digital Gateway.²⁷ The Gateway aims to improve online availability, quality and findability of information and assistance services on EU rights and national rules concerning operation and movement in the EU. It will require Member States to offer key national procedures fully online and to make all online procedures fully accessible for cross-border EU users. The Gateway will thus have the potential to reduce compliance costs for private businesses.

Empirical evidence provided by the Swedish National Board of Trade (2016) indicates that businesses that start selling services increase their profitability, employment and total sales of goods. Moreover, in-house employed service professionals increase the export intensity in manufacturing. Part of the reason for this is that in-house services can be used to overcome the fixed costs of exporting and enhance productivity.

²⁷ See European Commission (2017).

Box 6 Increased services content in EU manufacturing exports

A Danish company manufactures and sells production plants to customers in the food industry. As part of the contract, the Danish manufacturer installs the plant at the customer's factory and provides after sales service such as installation and maintenance of the plant. As the manufacturer is delivering a product as well as a range of services the company is subject to many different national requirements when exporting to other EU countries. For example, there may be national requirements for:

- Type-approval, insurance for safety reasons
- Qualifications of employees, certificates of employee competencies, local safety certificates, documentation of work ability and health etc.
- Other occupational health and safety requirements
- Information on and remuneration of workers temporarily located abroad
- Various tax matters, including registration of employees at local tax authorities
- Use of vehicles and machines to perform the service
- Permission if the work, e.g. requires transportation of very large items

To find out which rules to comply with on the customer's market, the company must consult several different information webpages. Some are national and others are European, which makes it difficult for the company to obtain a comprehensive and workable overview of all the rules, as they must comply with the required documents as well as the competent authorities to be contacted.

Source: Danish Business Authority (2018)

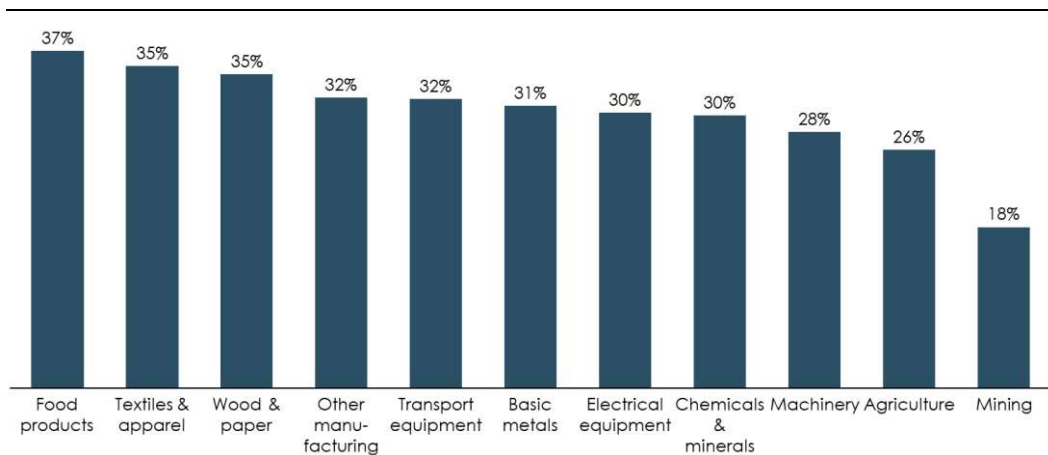
Likewise, manufacturers buy services to improve their productivity. Around 30 per cent of the total value added of manufacturing goods exports is generated by EU services.²⁸ The services content is particularly high for food products (37 per cent) and textiles & apparel (35 per cent).

Empirical research indicates that internationally traded services (i.e. service import) improve performance in manufacturing more than domestically provided services. Services from foreign suppliers help increase the manufacturing firm's exports and productivity, whereas domestic service inputs do not display a positive effect.²⁹ This partly reflects the fact that the nature of imported services differs from domestic services, and that trade in services increases the availability of service providers. Greater availability and variability of service providers give manufacturers access to cost-efficient, high-quality and better-matching service inputs. Thus, services trade is important for improving performance in manufacturing through efficiency gains, quality gains and knowledge spillovers.

²⁸ Copenhagen Economics based on Swedish National Board of Trade (2016) and WOID.

²⁹ A recent study commissioned by the European Commission confirms the positive relationship between the performance of business services and the performance of manufacturing. Manufacturing sectors that buy-in a relatively higher proportion of business services have a better productivity performance than sectors with a relatively lower buy-in of business services. See ECSIP Consortium (2014).

Figure 21
EU services shares in manufacturing exports across sectors, 2011
 Per cent



Source: Copenhagen Economics based on WIOD

Because of the high and increasing dependency on services for EU manufacturing, barriers to trade in services become more and more important to EU competitiveness. Service barriers drive up costs of services trade and reduce the choice of foreign services suppliers. Service barriers also hinder the use and sales of services by manufacturing firms directly and make it more difficult for manufacturing firms to integrate into global value chains.

Box 7 Atlas Copco had 40 per cent of revenue from services

Atlas Copco is an industrial group that produces compressors, construction and mining equipment, power tools and assembly systems. Atlas Copco puts a lot of emphasis on services, both tool maintenance and production optimisation, and offers services such as maintenance and repairs, sales of spares, diagnostic tools, surveillance, management and rental/leasing of equipment. Some of these services are built into the products, others are sold separately.

In 2011, 40 per cent of Atlas Copco's revenues came from the aftermarket and rental/leasing. Rental/leasing is a separate division, Atlas Copco Specialty Rental, where Atlas Copco rents equipment to customers, either for planned business or in emergencies. Maintenance and service technicians are included. By leasing the equipment, Atlas Copco offers customers a service where they originally would have sold them a good.

Source: Swedish Board of Trade (2012)

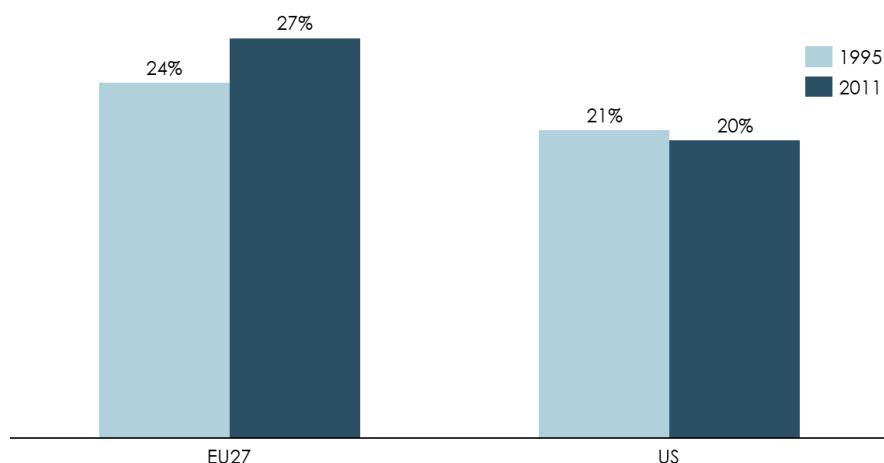
The EU economy is suffering from high costs of services which are, on average, 11 per cent higher in the EU compared to the US.³⁰ Further integration of the Single Market for services can bring down prices, improve variety and help EU manufacturing firms improve their competitiveness through servitisation.

³⁰ USITC, 2013, p.3-24.

All in all, barriers to services trade within the EU impose an important constraint on the competitiveness of EU manufacturing firms and the smoothness by which they can tap into global value chains. In some cases, proximity between manufacturers that buy services and the service suppliers is important, which makes trade in services through foreign establishment essential.

Reducing trade barriers is particularly important for the services sectors that sell services to the manufacturing sector, such as wholesale & retail trade, freight transport and accounting and legal services, cf. Figure 22. More than 11 per cent of the services used in manufacturing come from wholesale & retail trade. In this context, reducing the regulatory burden in the services sector is found by empirical research to be particularly important.³¹ This challenge of further reducing the barriers to services trade in the EU is becoming even more important because of the increasing size of the services sector combined with the deteriorating productivity development of EU services relative to the US.

Figure 22
Cost share of service input in manufacturing output, 1995 and 2011
Per cent



Note: Shares of service inputs are computed as percentages of gross output in manufacturing. Data are not available for Croatia.

Source: Copenhagen Economics based on the Swedish National Board of Trade Sweden (2016) and WOID

3.2 THE KEY ROLE OF DIGITAL SERVICES IN THE EU ECONOMY

Digitalisation has changed international trade and given rise to new complementarities between goods and services, particularly for trade in more complex manufactures and digitally deliverable services. Digital technologies and the amount of data they create trigger new innovations, products, services and business models, as well as new ways of interaction between people and machines. The

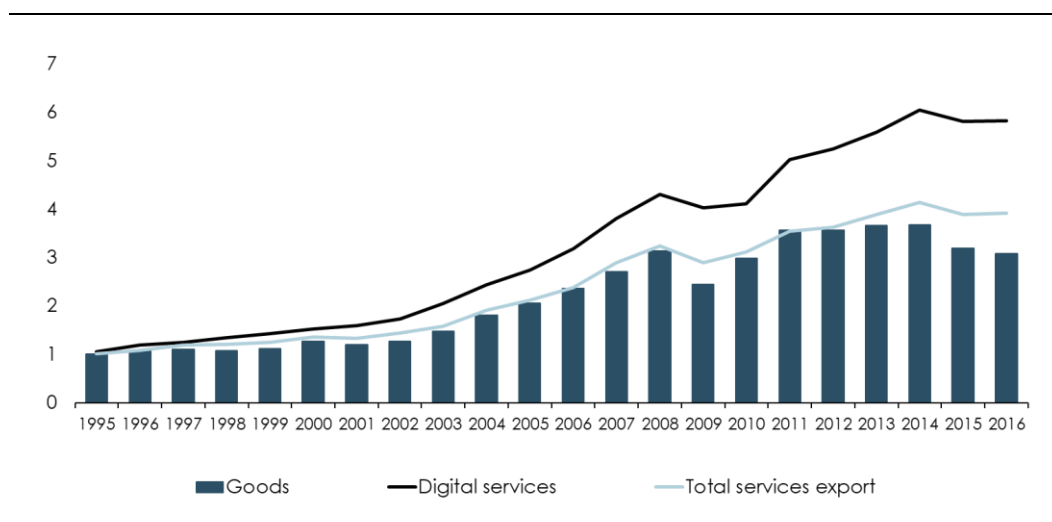
³¹ Barone and Cingano (2011), Fernandes (2009) and Nordås and Rouzet (2015).

digital economy has therefore changed the way citizens and businesses live, work, communicate, travel and consume.

Over the past ten years, trade in digital services has grown faster than services in general and much faster than trade in goods, cf. Figure 23. Since the EU economy is increasingly reliant on services, performing well in digital services trade is imperative. The digital transformation is a significant structural change. This holds considerable potential for the EU economy, since most European countries generate a large share of their value added in the services sector.

Figure 23
Global trade in services and digital services, 1995-2016

Index growth rate



Note: Growth index of trade in services and ICT services (1995–2016).
 Source: Copenhagen Economics based on World Bank data and Bertelsmann Stiftung

Benefiting from growing trade in services is critically dependent on performing well in digital services as this is the fastest growing area of services trade. However, much of the empirical evidence suggests that European countries are not fully prepared for this. This means that there is a risk that Europe does not fully realise the potential in this area because several barriers to trade in services are holding us back.

Recent studies suggest that the EU’s performance in digitalisation lags behind the US, and the EU has a large untapped potential in spurring digitisation and replacing US imports with higher intra-EU trade in digital services, cf. Box 8.

Box 8 Europe's digitisation potential

According to the McKinsey Global Institute's Industry Digitisation Index, Europe has a long way to go to fully tap the potential of digitisation. In 2013, the six European digital frontiers (the UK, the Netherlands, Sweden, France, Germany and Italy) operated only at 12 per cent of their digital potential. By comparison, the US operated at 18 per cent of its digital potential.

The European digital frontier, represented by the ICT sector, is only 60 per cent as digitised as the US frontier. Some large sectors, such as professional services, wholesale trade, and real estate, are further behind the digital frontier in Europe than they are in the US.

Furthermore, Europe is a net importer of US digital services, running a digital trade deficit amounting to nearly 5.6 per cent of total EU-US services trade. A stronger Single Market for services could offer an import substitution opportunity for Europe, i.e. if these digital services could be obtained from within the EU. Sectors and businesses that successfully deploy digital capabilities are able to realise efficiencies; however, to the extent that these capabilities are imported into Europe, there is a lost opportunity for additional economic gains in the form of domestic innovation, investment, and job creation. Measured by market capitalisation, for instance, there are no European businesses in the 20 largest digital companies. In addition, leading European digital hubs, including Berlin, London, Paris, and Stockholm, tend to have fewer unicorns (start-ups valued at over USD 1 billion) per vested company relative to the leading US digital hubs such as Boston, Los Angeles, New York and San Francisco.

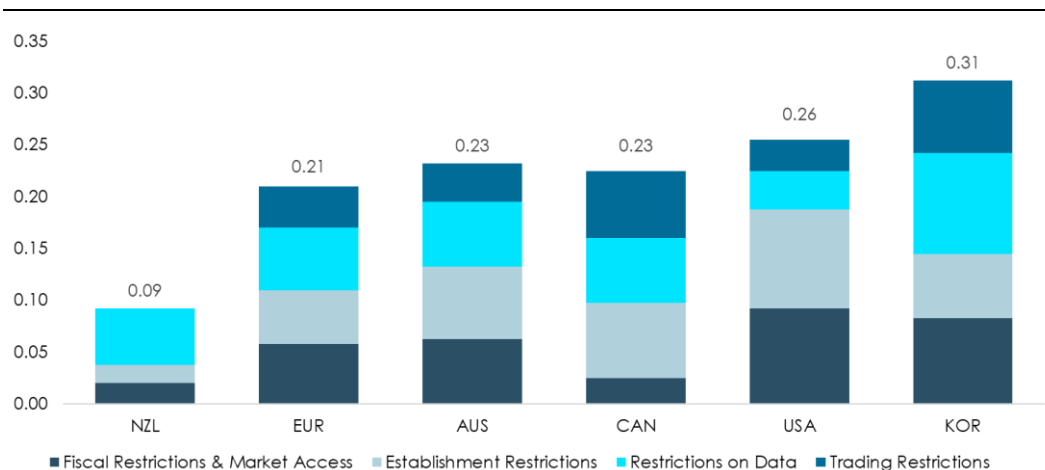
Note: The index is based on 21 indicators and gives a view across sectors of how enterprises are investing or spending on digital capabilities; how they deploy digital technologies to engage their customers, suppliers, and partners; and how they digitise their internal processes, create a digitally enabled workforce, and digitise work itself.

Source: McKinsey (2016)

A ranking of digital trade restrictiveness prepared by ECIPE (2017) shows that some European countries have prepared well for trade in digital services and are competitive on an international scale. The ECIPE study finds that it is mainly some of Europe's smaller, service-orientated economies that seem to be performing above average. However, the report also points at large disparities across the EU, and especially among the large Member States, with Germany, France and Italy lagging. Furthermore, there is a gap between the best EU countries and the OECD lead country in the study (New Zealand, cf. Figure 24). Still, the EU is found to be less restrictive than the US for digital trade and much less restrictive than China, which is the most restrictive country for digital trade according to the ECIPE index.

Figure 24
Digital Trade Restrictiveness Index (DTRI), 2018

DTRI score



Note: The DTRI score is between 0 (least restrictive) and 1 (most restrictive).

Source: Copenhagen Economics based on ECIPE data

If more is done to adopt, diffuse and use digital solutions within the Single Market, tremendous economic value could be captured through:

- Higher productivity, due to the faster flow of information, benefiting particularly knowledge service industries which depend on information for their services
- Structural changes in the EU economy, with activity moving away from manufacturing and traditional services sectors towards knowledge services
- Efficiency improvements and reduced transaction costs in traditional sectors, such as the free movement of goods and services

The European Commission estimates that structural reforms of the EU's digital markets could add up to EUR 415 billion a year to EU GDP, create jobs and transform public services.³² The long-run growth impact of the already observed digital reform effort is above 1 per cent, and further efforts in line with the Digital Agenda for Europe targets would entail an additional 2.1 per cent of GDP growth. This estimate of GDP impact is based on innovations that are already spreading through the European economies and have the potential to offer substantial economic benefits in the near future. In reality, the potential boost to GDP is likely to be much greater as the digital frontier continues to move forward at a rapid pace.

³² See European Commission, European Economy, Economic Papers 529 by Dimitri Lorenzani and Janos Varga, (2014). The authors point to four specific types of digital structural reforms which are considered in this work, namely: i) assigning rights of use of radio spectrum frequencies to mobile operators; ii) enhancing digital skills in a professional setting; iii) fostering the take-up of eCommerce; iv) increasing availability and the take-up of high-speed fixed broadband. The size of the impact is in line with earlier estimates from Copenhagen Economics (2005) and Copenhagen Economics (2007).

3.3 SERVICES TRADE, NEW TECHNOLOGIES AND INNOVATION

The pace and disruptiveness of technological change are creating unprecedented opportunities and challenges during the emerging Fourth Industrial Revolution.³³ Recent advances in robotics, machine learning or artificial intelligence (AI) are pushing the frontier of what machines are capable of doing in all facets of business and the EU economy.³⁴ These advances have the potential to provide the EU economy with a much-needed boost to productivity and enable businesses to realise substantial performance gains.

Box 9 Case: Caterpillar using software to improve efficiency

Caterpillar manufactures earth-moving machines. These big machines are often operating in remote, harsh environments and it is costly if such equipment breaks down in unpredictable ways. This can make the repair process long and difficult.

By mounting remote sensors and internet technology on its machines and by applying predictive software analytics, Caterpillar has managed to reduce the typical cost of 900 hours of downtime and USD 650,000 in repair costs to less than 24 hours and only USD 12,000.

Source: Case summarised in DG Trade (2017)

The last decade has seen some important emerging markets move closer to the technology frontier – although a clear gap remains with the leading advanced countries, which continue to benefit from their historically strong innovation ecosystems.³⁵ With the growing importance of countries such as Japan, Republic of Korea, China and India as innovation centres, it is becoming immensely important to maintain the level of innovation activity in the EU.

The Innovation Union Scoreboard shows that the EU's innovation performance falls short of our main competitors although some degree of convergence to the US can be observed, cf. Figure 25.³⁶ The services sector accounts for around 35 per cent of total R&D expenditure in the EU and for around half of private innovation expenditure.³⁷ The services sector is thus a key driver of innovation in the EU economy. The EU has maintained the same level of restrictiveness to trade in services (measured by the STRI index), whereas other countries such as Republic of Korea and China have become more open.

³³ World Economic Forum (2018).

³⁴ McKinsey (2017).

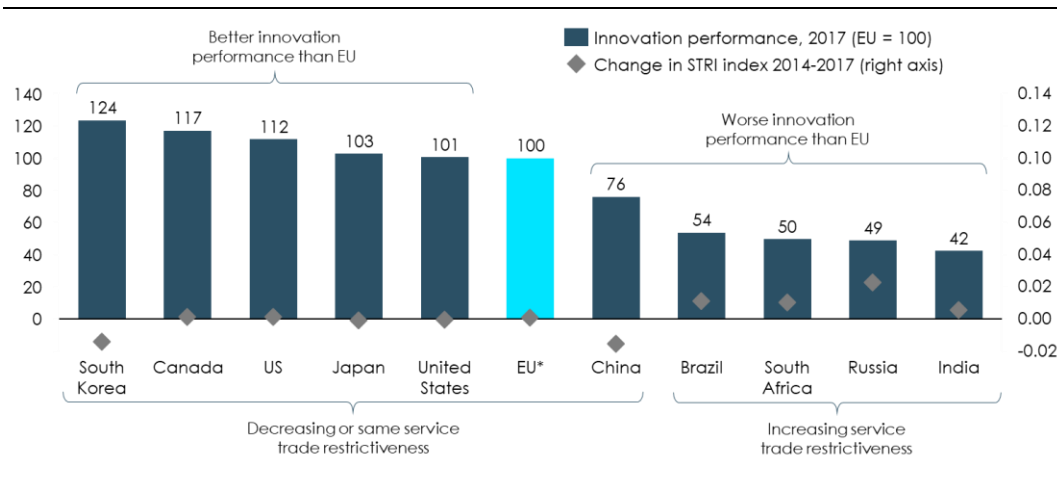
³⁵ World Economic Forum (2018).

³⁶ The scoreboard tracks a broad range of innovation indicators, including educational standards, R&D expenditure, patent production and business innovation. See also European Commission (2013).

³⁷ European Commission (2018). The report finds that the manufacturing sector is responsible for 64 per cent of private sector R&D expenditure and for 49 per cent of innovation expenditure. Figures for the services sector are approximated by the residual.

Figure 25
Innovation performance in 2017 and Service Trade Restrictiveness Index (STRI) development, 2014-2017

EU = 100



Note: A positive change in the Service Trade Restrictiveness Index (STRI) index means that the services sectors have become more restrictive. The STRI is measured as a simple average across sectors and countries for the EU. *EU is only EU23 for the STRI index. EU23 is EU28 without Malta, Cyprus, Bulgaria, Romania and Croatia because numbers for these countries are not available.

Source: Copenhagen Economics based on OECD data

Recent EU regulation has ensured that data can flow freely across the Single Market – just like goods, services, capital and labour. This implies that private businesses and public authorities can store and process data anywhere in the EU. Free data flows also support the development and adoption of AI and block chain. According to IDC (2017), the value of the EU data economy was more than EUR 285 billion in 2015, representing over 1.9 per cent of EU GDP.

The digital transformation does not occur in isolation. It is shaped by, and contributes to shaping, the broader economy and society. Recent research by the OECD shows that making the most out of the digital transformation for trade requires approaching market openness more holistically, thinking about measures affecting goods, services and digital connectivity more jointly, and considering measures affecting the full value chain, including the enablers of digital trade and tackling all these through greater international cooperation.³⁸

First, OECD (2017) finds that framework policies play an important role in ensuring that the conditions exist for the digital transformation to flourish. International trade in both goods and services is crucial for access to new technologies and both trade and international investment can help to transfer skills and knowledge. Furthermore, the OECD highlights in particular the following indicators of good framework conditions as building the foundations for digital transformation, many of which are relevant for the level of freedom to provide services:

- Barriers to entrepreneurship
- Barriers to trade and investment

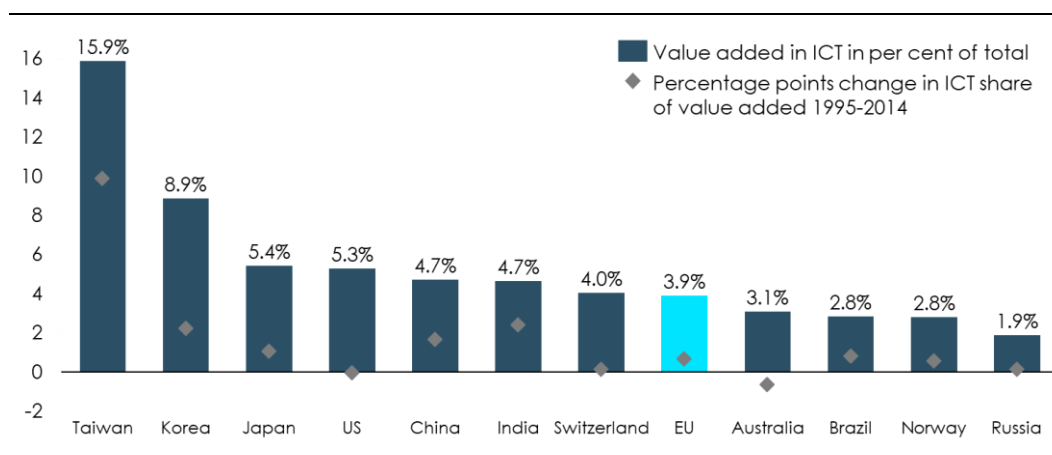
³⁸ López and Ferencz (2018).

- Regulation in the telecommunication sector
- Regulation in the retail trade sector
- Regulation on professional services
- Trade restrictiveness

Second, engaging in digital trade in goods means paying attention to a broader range of supporting services, such as logistics or e-payments. An efficient Single Market for services with low barriers to trade and investment combined with harmonised regulation (e.g. in telecommunication, retail trade and professional services) will therefore support the digital transformation of the EU economy.

Third, the ability to engage in trade in services, particularly those that are digitally delivered, is also, in part, affected by market access to ICT goods. The economic importance of the ICT sector goes well beyond its size. ICTs encompass positive spillovers to other sectors and are crucial to ensure that technological developments and capital deepening can stimulate innovation in private businesses, and eventually translate into productivity gains, also in more traditional sectors. ICTs can be regarded as general-purpose technology, providing inputs and enablers for several other economic and social activities. It is therefore a cause of concern that the ICT sector accounts for a smaller share of the economy in the EU compared to other OECD countries, cf. Figure 26. ICT value added as a share of EU GDP has grown by 0.7 percentage points since 1995, which is at a similar level as the US but below that in many of the emerging economies.

Figure 26
Value added in the ICT sector as a share of GDP, 2014
Per cent



Note: Data for Canada is from 2013. The ICT sector is defined by the European Commission and includes ICT services industries (telecommunications, computer and related activities) and ICT manufacturing industries (manufacture of electronic components and boards, manufacture of computers and peripheral equipment, manufacture of communication equipment and manufacture of consumer electronics).

Source: Copenhagen Economics based on 2017 PREDICT database

CHAPTER 4 - KEY FINDINGS

CALLS FOR ACTION

IDENTIFIED GAPS

Stalling progress in further deepening of the Single Market means that Member States are losing out on economic gains that will eventually result in citizens being less well-off.



Adequacy gap



Implementation gap



Enforcement gap



Reality gap

THE WAY FORWARD



1. Set direction

Put the Single Market for services high on the EU competitiveness agenda



2. Ensure fit

Digital proofing of key rules and directives



3. Measure progress

Develop a scoreboard 2.0 of Member State performance in reducing service barriers



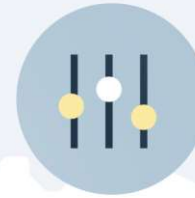
4. Commit to improve

Member States shall commit to improving their performance year by year



5. Prioritise efforts

Prioritise enforcement in the areas with greatest economic impacts



6. Follow-up and adjust

Conduct regular reality checks to ensure things are working in practice for all users

THE GOAL IS HIGHER WELFARE AND PROSPERITY

This calls for a Single Market. Not one Single Market for goods, another for services and a third for digital activities.



CHAPTER 4

CALLS FOR ACTION

Europe has an opportunity to create more growth and cohesion by making intra-EU services trade work better for all. Much of the debate on the Single Market has seen services as separate from manufacturing and seen digital as a layer separate from the rest of the economy.

Our study finds that much of the future sources of growth and welfare creation lies in combining services and manufacturing in new ways. The pervasive nature of new digital technologies and the ever-increasing servitisation of the modern economies result in blurred lines between services and manufacturing. This makes the distinctions between digital and non-digital services or business close to meaningless. Our economies, businesses and personal lives will be *digital by default* – and the way we integrate and regulate our markets should reflect these realities. Rather than standing in the way of these developments, policies and regulation should support the new key technologies and business models, since these are the keys to unleashing future European growth.

In this report, we have tested whether EU regulation of services is fit for purpose against these realities. We have underlined the importance of the service markets considering the challenge in regain competitiveness. Considering the increasing competitive pressure from other regions of the world, a better functioning of services trade within the EU is essential to realising the full growth potential in our part of the world. In the previous chapters, we have identified four gaps in relation to the Single Market for services, and in this chapter we formulate actions to address these.

Four gaps in the Single Market for services



Adequacy gap

Key pieces of the regulation of services trade in Europe are outdated. The e-commerce Directive is from the early 2000s and the Services Directive was construed some years later, adopted in 2006 and implemented by EU members by 2009.

Calls for action to ensure the rules are fit for purpose



Implementation gap

Even eight years after the deadline, the Services Directive is still not fully implemented in all the Member States.

Calls for action to ensure rules get properly implemented in national laws



Enforcement gap

While the key legislation (such as the Services Directive) is not properly implemented and therefore not enforceable, national-level measures sometimes introduce draconian restrictive measures which prevent cross-border exchange.

Calls for action to ensure follow-up and appropriate consequences for non-compliance at EU and national level



Reality gap

In the modern economy where there is an increasing level of servitisation, it makes little economic sense for such a difference between the depth and the width of the Single Market in services and the Single Market in goods.

Calls for action to ensure rules and regulations work in practice for the businesses and consumers involved

We have identified six calls for action to improve EU services trade. The six calls for action are addressing the identified gaps and thereby drive future growth and cohesion of the services markets in Europe.

Figure 27
Six calls for action to improve the Single Market for services

-
- 

1. Set direction
Put the Single Market for services high on the EU competitiveness agenda
 - 

2. Ensure fit
Digital proofing of key rules and directives
 - 

3. Measure progress
Develop a scoreboard 2.0 of Member State performance in reducing service barriers
 - 

4. Commit to improve
Member States shall commit to improving their performance year by year
 - 

5. Prioritise efforts
Prioritise enforcement in the areas with greatest economic impacts
 - 

6. Follow-up and adjust
Conduct regular reality checks to ensure things are working in practice for all users

Source: Copenhagen Economics

In combination, the six calls for action seek to match the progress made in areas such as air travel and telecommunications in other areas of intra-EU services trade and seek to make the functioning and regulation of the European service economy work in ways that are better fit for the future.

The overall aim is to dismantle unhelpful barriers to trade in Europe. The common denominator for these actions is that they are business and consumer focused and aim to be better fit for a digital future and the realities of service-manufacturing inter-dependence. In the following, we elaborate on each of the six calls for action.

4.1 CALL FOR ACTION 1: SET DIRECTION

Put the Single Market for services high on the EU competitiveness agenda

To put services high on the competitiveness agenda of the Union and of the Member States, the High Level Working Group on Competitiveness and Growth (or the Internal Market Advisory Committee) should set clear ambitions for the performance of the Single Market for services.

On this basis, the Competitiveness Council could:

- Consider the performance of the Union and Member States annually with respect to addressing remaining barriers to EU services trade and remaining gaps in the Single Market affecting services as part of the competitiveness check-up (e.g. via a Single Market Scoreboard 2.0, see Section 4.3 below);
- Identify, in conjunction with the European Commission, horizontal measures to lower barriers for services to enhance the Union's competitiveness in services.

4.2 CALL FOR ACTION 2: ENSURE FIT

Digital proofing of key rules and directives

To ensure fitness for purpose in the Digital Age and boost competitiveness, a '**digital proofing**' of the existing regulatory regime for services, should be performed.

Digital trade is growing rapidly, which may lead to a gap in the adequacy or fitness for purpose of the regulatory regime in the context of emerging services in the modern economy. This 'adequacy gap' should be addressed in an examination of the regulatory regime for services.

The digital proofing exercise should ask whether the EU regulatory regime for services (e.g. the e-Commerce Directive and the Services Directive) is adequate for addressing the challenges and opportunities of the digital economy. Many of the key directives were drafted before the advent of services delivered in the form of, for example, AirBnB and Uber, and the ECJ has been called upon in recent years to adjudicate on what should, ideally, be straightforward questions of scope in the context of new service models. This is harmful to legal certainty (before the cases are decided) and discourages entrepreneurs from innovating with new service models.

The digital proofing could for example be achieved by actively pursuing the digital by default principle stated in the Tallinn Declaration on eGovernment and broaden the principle outside eGovernment. In doing so, it should be recognised that modern business increasingly involves a mixture of physical and digital components in the delivery of services. This implies that, as part of addressing the 'Adequacy gap' identified above, we are seeing new mixtures of services and new business models, which need to be assessed on the boundary of the existing key directives, e.g. the e-Commerce Directive and the Services Directive.

Chapter 3 has shown a growing contribution of services within manufactured goods, and the crucial importance of services to the development of the digital economy. At a policy level, Europe's actions on these fronts – industrial policy, digital, and services – must be

joined-up and holistic. In particular, it is time to move beyond a separate treatment of a Digital Single Market and move to ensuring a Single Market that is fit for the Digital Age in all respects – encompassing goods, services, capital, digital innovation and infrastructure. To this end, the Commission could:

- Actively pursue and broaden the ‘digital by default’ principle stated in the Tallinn Declaration in the design of regulation for the delivery of services to ensure that digital services face no unnecessary barriers;
- Consider more initiatives to strengthen links between the digital economy, manufacturing, artificial intelligence and data flows;
- Assess the workings of EU rules from a firm and or sector perspective holistically across different areas of rules and laws.

4.3 CALL FOR ACTION 3: MEASURE PROGRESS

Develop a ‘Single Market Scoreboard 2.0’ of Member State performance in reducing service restrictiveness

The existing Single Market Scoreboard is one the monitoring instruments in the Commission’s toolbox to assess national compliance with EU Directives in the Single Market. The intention is to improve the Single Market by showcasing the progress made by Member States. The main focus has been on the timely and correct transposition of directives and providing data on infringement procedures.

The Single Market Scorecard has done a good job in measuring the transposition, implementation and infringement performance related to Single Market legislation. And has done so at both Member State and Union level. Indeed, transposition gaps have come down since the first version of the Single Market Scoreboard in 1997.³⁹

The existing Single Market Scoreboard has been developed and improved over many years. It continues to serve an important role in ensuring transparency and compliance with the agreed Single Market legislation at a given date. This effort will remain useful and needed in years to come.

However, the existing toolbox does not provide EU policy makers with an overview of remaining levels of restrictiveness facing services providers or consumers in the EU economy. To measure progress in the Single Market from a business and consumer perspective, an updated Single Market Scoreboard would add this element to the existing tool. The ambition should be to develop a ‘Single Market Scoreboard 2.0’ of the Union’s and individual Member States’ performances in reducing service restrictiveness and assess whether low performance is due to an adequacy gap, implementation gap or enforcement gap.⁴⁰

³⁹ See Lombaerde and Saucedo Acosta (2017).

⁴⁰ According to ECIPE (2016), the scoreboard is often criticised because, as a ratio of transposition deficit versus total number of directives related to the Single Market, it exaggerates the legal integration. There are two reasons behind it: first, it accords the same weight to the transposition of critical directives, such as the Services Directive, as to less important directives; and second, the total number of directives grew much faster than the

On this basis, the European Commission could:

- Continue the current monitoring of the elements in the current Single Market Scoreboard;
- Develop a Single Market Scoreboard 2.0 and use it proactively;
- Identify best practice amongst the Member States.

4.4 CALL FOR ACTION 4: COMMIT TO IMPROVE

Member States should commit to improving their performance year by year

To ensure continued focus and improvements, the Commission should urge Member states to make commitments to improve their performance taking account of their existing ranking as to openness to intra-EU services trade.

Based on the scoreboard of services trade openness, it should be clearly stated which Member States are the Single Market Leaders. All Member States should be ranked in groups in a similar manner to the European Innovation Scoreboard which groups all Member States into categories according to level of performance.⁴¹

On this basis, Member States could be obliged to:

- Study the five least restrictive Member States to identify best practices;
- Set targets to improve, and those below the top category of Leaders should aim to move upwards to the next group.

4.5 CALL FOR ACTION 5: PRIORITISE EFFORTS

Prioritise reduction of barriers and better enforcement in the areas of greatest economic potential

To make the most effective use of efforts, the Commission should direct efforts to reducing unnecessary barriers to trade in services and enforcement efforts towards areas of greatest economic potential and/or least well-functioning markets.

Enforcement of the existing regulatory acquis, and its implementation in Member States, should be refocused to prioritise the areas of greatest potential economic benefit, especially to the primary users of the Single Market – businesses and consumers. Enforcement efforts and/or new measures to reduce barriers should prioritise removing the restrictions causing greatest harm to cross-border operators.

To this end, the Commission could:

transposition deficit declined. It, therefore, provides a false signal of improvement. Consequently, the figure covering the transposition deficit is not a good tool for understanding actual implementation and enforcement. Moreover, it is not only a matter of transposition but also of the quality of implementation. Transposition concerns only directives and does not take into account regulations that have recently gained more prominence: 976 regulations relate to the various Single Market policy areas. When a Member State fails to transpose a Directive or to follow regulation an infringement procedure might be enacted. It is the main legal and administrative recourse to enforce correct application of EU law. Despite the slow, costly and difficult process they entail, the number of open infringement cases is significant, reaching almost 1000 pending cases in 2014. It takes on average of 30 months to resolve an infringement case.

⁴¹ See: https://ec.europa.eu/growth/industry/innovation/facts-figures/scoreboards_en_

- Prioritise enforcement and/or new measures to reduce barriers linked to the aim of lifting more restrictive Member States up to the next level on the Single Market Scoreboard 2.0 (see above).
- Prioritise enforcement and/or new measures to reduce barriers to the Single Market aiming at removing the persisting restrictions (as shown in Section 1.4), which are economically significant, within a given time horizon (e.g. 5 years)
- Explore sectors which could benefit from the introduction of certain services standards;
- Consider an effects-based approach to enforcement whereby the commission is prioritising sanctions where infringements are most harmful, and aim to ensure that sanctions are proportionate to the harm caused by the infringement;

4.6 CALL FOR ACTION 6: FOLLOW-UP AND ADJUST

Conduct regular reality tests

To ensure that firms and consumers make use of the rules and harvest the intended benefits, the Commission could conduct reality tests – from a business perspective and looking holistically across the entire set of EU rules for businesses to ensure that what is agreed and implemented in law is also working in practice from a user perspective.

To this end, Member States could:

- Make mutual recognition of professional qualifications a reality through the simplification of existing processes and by stringently testing the introduction of any new procedures
- Increase efforts to meet the needs of service providers to get the information they need and complete administrative procedures online - for example by updating the Points of Single Contacts (PSCs) according to the quality criteria in the Single Digital Gateway to make the PSCs fully compliant with the requirements of the Services Directive.⁴²

In addition, the Commission could:

- Identify possibilities for the simplification and streamlining of regulation to provide maximum legal clarity;
- Ensure further progress on the suggestion already being on the table to introduce a system of notification of new regulatory requirements;
- Meet the request from businesses to make it easier for businesses to comply with administrative requirements in another Member States by electronic means, including via further consultations with businesses and Member States as to how this could most appropriately be achieved;
- Finalise the Single Digital Gateway to ensure that bureaucracy is minimised in implementing the Gateways, to ensure that compliance costs are minimised;
- Eliminate regional language or local partner requirements;

⁴² Deloitte and Danish Technological Institute (2012) found that the economy-wide impact of the already pursued Points of Single Contact alone is more than 0.1 per cent of GDP for the EU on average. The predicted additional impact of a benchmark level of procedural streamlining is 0.1-0.2 per cent of GDP in the long run.

- Introduce more effective sanctions for non-compliance where the level of the sanction is proportionate to the economic harm;
- Improved forms of redress and dispute resolution, e.g. by exploring ways of improving the use of SOLVIT in the field of services.

REFERENCES

Andersen, T.M., Bertola, G., Driffill, J., Fuest, C., James, H., Sturm, J.E. and Urošević, B., 2018. Building Trust between Suspicious Minds. *EEAG Report on the European Economy*, pp.35-46.

Andrenelli, A. et al., 2018, Multinational production and trade in services. OECD Trade Policy Papers 212: *OECD Publishing*.

Atkinson, R. D., 2018. How ICT Can Restore Lagging European Productivity Growth. *Information Technology and Innovation Foundation*, October 2018.

Barone G., and Cingano, F., 2011. Service Regulation and Growth: Evidence from OECD countries. *The Economic Journal*, 121 (555), pp. 931–957.

Bruno, R.L., Campos, N.F., Estrin, S. and Tian, M., 2017. Foreign direct investment and the relationship between the United Kingdom and the European Union. In *The Economics of UK-EU Relations* (pp. 139-173). Palgrave Macmillan, Cham.

Cernat, L. and Kutlina-Dimitrova, Z., 2014. Thinking in a box: A ‘mode 5’ approach to service trade. *Journal of World Trade*, 48(6), pp.1109-1126.

Copenhagen Economics, 2005, Copenhagen Economics, Economic Assessment of the Barriers to the Internal Market for Services.

<https://www.copenhageneconomics.com/dyn/resources/Publication/publicationPDF/4/124/o/trade4.pdf>.

Copenhagen Economics, 2007. Study on the Economic Impact of the Electronic Commerce Directive.

Copenhagen Economics, 2018. The World in Europe: Global FDI flows towards Europe. <https://www.copenhageneconomics.com/dyn/resources/Publication/publicationPDF/9/439/1525766294/espon-fdi-02-main-report-extra-european-fdi-towards-europe.pdf>.

Corugedo, E. F. and Ruiz, E. P., 2014. The EU Services Directive; Gains from Further Liberalization, IMF Working Papers 14/113, *International Monetary Fund*.

Deloitte and Danish Technological Institute, 2012. Study on the function and usability of the Points of Single Contact under the Services Directive – State of Play and way forward.

DG Trade, 2017. Liberalising global trade in mode 5 services: How much is it worth? *Chief Economist Note* issue 4, July 2017.

Dimitri, L. and Varga J., 2014. The economic impact of digital structural reforms. *European Commission European Economy Economic Paper* 529.

ECB Economic Bulletin, Issue 4/2018.

ECIPE, 2016. What is wrong with the Single Market?

ECSIP Consortium, 2014. Study on the relation between industry and services in terms of productivity and value creation. *Commissioned by DG Enterprise and Industry*.

Erixon, F. and Georgieva, R., 2016. What is Wrong with the Single Market? *European Centre for International Political Economy*. Available online at http://ecipe.org/app/uploads/2016/02/5Freedoms-012016-paper_fixed_v2.pdf, checked on, 8, p.2018.

Estonian Ministry of Economic Affairs, 2018. Mapping the requirements for the construction services in another Member State.

European Central Bank, 2018. Foreign direct investment and its drivers: a global and EU perspective.

European Commission Press Releases, 2016. "Commission sets out path to digitise European industry". *European Commission Press Release Database*.

European Commission Press Releases, 2017. Digital Single Market: Commission calls for swift adoption of key proposals and maps out challenges ahead. *European Commission Press Release Database*.

European Commission Press Releases, 2018. Enjoy your new digital rights across Europe during summer holidays. *European Commission Press Release Database*.

European Commission, 2002. The State of the Internal Market for services.
<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52002DC0441&from=EN>.

European Commission, 2010. Europe's Digital Competitiveness Report 2010.

European Commission, 2011. Single Market Act: Working together to create new growth.
<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52011DC0206&from=EN>.

European Commission, 2012. Communication on the implementation of the Services Directive: A partnership for new growth in services 2012-2015.
<http://ec.europa.eu/transparency/regdoc/rep/1/2012/EN/1-2012-261-EN-F1-1.Pdf>.

European Commission, 2012. Single Market Act II: Together for new growth.
<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52012DC0573&from=EN>.

European Commission, 2013. Innovation Union – A pocket guide on a Europe 2020 initiative.
doi:10.2777/59336.

European Commission, 2014. Assessment of the economic impact of the Services Directive – Update of the 2012 Study".

European Commission, 2015. Results of stakeholders analysis. Barriers to providing services: stakeholder exercise.

European Commission, 2016. Business Innovation Observatory.

European Commission, 2016. EU exports to the world: Overview of effects on employment and income, Chief Economist Note February 2016.

European Commission, 2017. Annual Report on European SMEs 2016/2017.

European Commission, 2017. Proposal for a Directive of the European Parliament and of the Council on the legal and operational framework of the European services e-card.

European Commission, 2017. Proposal for a regulation of the European Parliament and of the Council on establishing a single digital gateway to provide information, procedures, assistance and problem solving services and amending Regulation (EU) No 1024/2012

European Commission, 2018. 2017 annual report on intra-EU labour mobility.

European Commission, 2018. Re-finding industry - Report from the High-Level Strategy Group on Industrial Technologies.

European Commission, 2018. The 2018 Ageing Report.

Federal Ministry for Economic Affairs and Energy, 2016. Monitoring Report: DIGITAL Economy 2016.

Fernandes, A. M., 2009. Structure and Performance of the Services sector in Transition Economies. *Economics of Transition* 17(3), 467–501.

Danish Business Authority, 2018. 25 years of the European Single Market, a study conducted by Højbjerg, Brauer and Schultz.

IDC, 2017. SMART 2013/0063 European Data Market.

IMF, 2014. The EU Services Directive: Gains from Further Liberalization.

Kommerskollegium, 2015. Economic effects of the European Single Market: Review of the Empirical Literature.

López G. J. & J. Ferencz, 2018. “Digital Trade and Market Openness”, OECD Trade Policy Papers, No. 217, *OECD Publishing*, Paris.

Lorenzani, D. and Varga, J., 2014. The Economic impact of digital structural reforms (No. 529). *Directorate General Economic and Financial Affairs (DG ECFIN)*, European Commission.

Mayer, T., Vicard, V. and Zignago, S., 2018. The Cost of Non-Europe, Revisited.

McKinsey, 2016. Digital Europe: Pushing the frontier, capturing the benefits.

McKinsey, 2017. What’s now and next in analytics, AI, and automation?

Miroudot, S. and Cadestin C., 2017. Services in Global Value Chains: From Inputs to Value-Creating Activities. OECD Trade Policy Papers 197, *OECD Publishing*.

Monteagudo, J., Rutkowski, A. and Lorenzani, D., 2012. The economic impact of the Services Directive: A first assessment following implementation (No. 456). *Directorate General Economic and Financial Affairs (DG ECFIN)*, European Commission.

Nordås, H. K. and Rouzet, D., 2015. The Impact of Services Trade Restrictiveness on Trade Flows First Estimates (OECD Trade Policy Papers No. 178) Paris, France: *OECD Publishing*.

OECD, 2014. OECD Economic Surveys European Union Paris, France: *OECD Publishing*.

OECD, 2017. OECD Digital Economy Outlook 2017.

See Lombaerde, P. De and Saucedo Acosta, E. J., 2017. Indicator-Based Monitoring of Regional Economic Integration: Fourth World Report on Regional Integration.

Swedish National Board of Trade, 2012. Everybody is in services.

Swedish National Board of Trade, 2016. The Servicification of EU Manufacturing – Building Competitiveness in the Internal Market, and references therein.

Timmer, M.P., Inklaar, R., O'Mahony, M. and Van Ark, B., 2011. Productivity and economic growth in Europe: A comparative industry perspective. *International Productivity Monitor*, (21), p.3.

UNCTAD, 2016. World Investment Report 2016.

UNCTAD, 2017. Trade, services and development.

World Economic Forum, 2013. Rebuilding Europe's Competitiveness.

World Economic Forum, 2018. The Global Competitiveness Report 2017–2018.



**An Roinn Gnó,
Fiontar agus Nuálaíochta**
Department of Business,
Enterprise and Innovation



**MINISTRY OF
INDUSTRY AND TRADE
CZECH REPUBLIC**



**MINISTRY OF INDUSTRY, BUSINESS
AND FINANCIAL AFFAIRS**



**Ministry of Economic Affairs
and Employment of Finland**

About Copenhagen Economics

Copenhagen Economics is one of the leading economics firms in Europe. Founded in 2000, we currently employ more than 85 staff operating from our offices in Copenhagen, Stockholm, Helsinki, and Brussels. The Global Competition Review (GCR) lists Copenhagen Economics among the Top-20 economic consultancies in the world and has done so since 2006.

Every day, we strive to combine hard facts and clear stories to help our clients make better choices in their political and commercial reality. We succeed because we are a senior team dedicated to delivering compelling and pragmatic economics solutions with a creative and candid approach.