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The EU Services Directive: Untapped Potentials of Trade in Services

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Austrian Institute of Economic Research
Commissioned by Federal Ministry Digital and Economic Affairs

Review: Harald Oberhofer
Research assistance: Irene Langer

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WIFO

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Contents

List of Tables

Pages

List of Figures ..... Pages

Executive summary (englisch)

The most important reform step to date in the liberalisation and deepening of the EU internal market for services was taken with the EU Services Directive (SD). It entered into force in June 2006 and was implemented – in legal terms – in most EU countries by 2010. Upon the SD's 15th anniversary in 2021, this study takes stock of the progress of reforms as well as the trade and welfare gains so far achieved and quantifies unexploited potential gains due to implementation deficits. The SD excludes some services sectors. However, the sectors covered by the SD accounted for 62% of total intra-EU services exports, well over half of Austrian exports to other EU members and almost 60% of Austrian total services value added. Estimation results are based on a theory-consistent specification of the gravity model at the industry and country level over the period 1995 to 2018. The analysis applies a novel country-specific indicator derived from business complaints with respect to cross-border trade issues reported to the SOLVIT mechanism. In this way all estimated effects take account of heterogeneous degrees and qualities of SD implementation across Member States. According to this indicator as well as earlier findings in the literature, implementation of the SD and progress in reforms have been limited, slow and highly uneven across countries and sectors. Austria finds itself among the group of EU countries with moderate implementation of the SD. At the same time its exports are rather strongly concentrated on trading partners belonging to the group of weak reformers.

The study finds that the SD has delivered benefits in terms of increased trade and real income gains in Austria and at the EU level. The estimates indicate positive trade and welfare effects for all services industries covered by the SD. The IT and information sector, as well as the sectors "professional, scientific and technical activities" and "wholesale and retail trade" contributed most to overall trade gains realised up to the year 2018. General equilibrium trade results indicate that the SD raised Austrian exports to and imports from other EU countries by 6.2% and 6.7% on average in the period 2010 to 2018 and induced average real income effects of 0.3% compared to a counterfactual situation of "no policy change". With these results Austria ranks well in the middle among the EU countries. SD-induced trade effects for Austria as well as for the total EU accelerated over time. This reflects the delayed reform process, but also that SD-induced reforms needed time to become fully effective.

The findings in this study also indicate that strong improvements in the compliance with and the implementation of SD rules could be an important source for additional trade increases and associated real income gains for Austria and the EU. In a counterfactual scenario of "best SD implementation" which assumes that all EU Member States increase reform efforts to the level of the group of best reforming countries in the sample, the analysis finds an intra-EU export and import potential of 9.5% and 7.5%, respectively. Potential real income effects are in the range of 0.2% to 0.4%. The resulting trade potentials are similar across the services sectors covered by the SD. Throughout, the calculated potentials are higher than the impacts so far realised. Real income potentials range from 0.1% in the sector of "business support and administrative services" to 0.7% in the sector "publishing, audio-visual and broadcasting". Austria ranks among the EU countries which have the most to gain from deeper reforms and better compliance with SD rules.

Trade diversion effects were found to be quite moderate and non-existent in some bilateral relations with the ROW. Deeper and stronger services sector reforms in the EU are therefore not likely to be associated with high costs for non-EU countries in the rest of the world (ROW). At the sector level, the revealed trade and income effects from SD implementation in the IT and information sector as well as the group of professional, scientific and technical activities are most promising since these activities are essential inputs to many other sectors and key drivers of competitiveness and productivity. Last not least, the analysis provides evidence on the importance and positive impacts of informal and faster solution mechanisms such as the SOLVIT mechanism to tackle possible cross-border services trade problems.

The counterfactual scenario of "best implementation" considered in the analysis implies an almost perfect world of full compliance and enforcement of SD rules in all Member States. Thus, for the potential effects to be realised policy coordination among members must ensure and strengthen joint reform efforts and must prevent uncooperative behaviour of individual countries, which could be born out of the incentive to capture gains for its own export industries but at the same time to protect its own industries from increased import competition. Indeed, the resulting welfare gains stem from an increase in exports but also from an increase in imports that substitute for less efficient, more expensive domestic provision of services. Therefore, better implementation and enforcement of SD rules crucially depend on Austria's and all other Member States' commitment and involvement and better cooperation between all European actors. Hence, at the policy level, the strengthening of coordination and cooperation mechanisms already in place is of utmost importance. This involves increasing the awareness and knowledge of the mechanisms in place both, for companies and national authorities, as well as lifting and harmonising reporting standards by providing clearer and more precise guidelines for reporting and further trainings of officials. At the same time, the measurement and monitoring of barriers of services trade at the disaggregated level of countries and sectors should continue, be based on better indicators and improved accessibility. Last not least, policy has to take account of complementary EU legislative acts, regulations and directives that are essential for the SD to be fully effective. These range from competition policy to regulations concerning infrastructural investments (especially in electronic communication) to the implementation of the Digital Single Market.

Executive summary (deutsch)

Der bislang bedeutendste Reformschritt zur Liberalisierung und Vertiefung des EU-Binnenmarktes für Dienstleistungen wurde mit der EU-Dienstleistungsrichtlinie (DL-RL) gesetzt. Sie ist im Juni 2006 in Kraft getreten und wurde bis 2010 in den meisten EU-Ländern rechtlich umgesetzt. Das 15-Jahr-Jubiläum der Dienstleistungsrichtlinie im Jahr 2021 gibt Anlass und Motivation zu einem Zwischenfazit und zur wissenschaftlichen Bewertung der bisher erzielten Handels- und Einkommenseffekte dieses maßgeblichen Integrationsschrittes sowie zu einer Bewertung der noch unausgeschöpften Potentiale aufgrund von Umsetzungsdefiziten. Die DL-RL schließt einige Dienstleistungssektoren aus, jedoch entfallen auf die von der DL-RL erfassten Sektoren 62% der gesamten Intra-EU-Dienstleistungsexporte, weit mehr als die Hälfte der österreichischen Intra-Exporte sowie fast 60% der gesamten österreichischen Dienstleistungswertschöpfung. Die Ergebnisse der Schätzungen basieren auf einer theoriekonformen Spezifikation des Gravitationsmodells auf Branchen- und Länderebene für den Zeitraum 1995 bis 2018. Dabei kommt ein neu gebildeter länderspezifischer Indikator zur Anwendung, der aus Meldungen im sogenannten SOLVIT-Mechanismus zur Bewältigung grenzüberschreitender Probleme aufgrund fehlerhafter Anwendung der Binnenmarktvorschriften abgeleitet wird. Damit berücksichtigen die Berechnungen die unterschiedliche Qualität der Umsetzung von Reformen in den einzelnen Mitgliedstaaten. Diesem Indikator sowie früheren Erkenntnissen aus der Literatur zufolge waren die Umsetzung der DL-RL und die Fortschritte bei den Reformen in den einzelnen Ländern und Sektoren bisher begrenzt, langsam und sehr uneinheitlich. Österreich zählt zur Gruppe der EU-Länder mit mäßiger Umsetzung der DL-RL. Gleichzeitig sind die österreichischen Dienstleistungsexporte stark auf Handelspartner mit nur schwachem Reformfortschritt konzentriert.

Insgesamt bestätigt die Studie die Erwartungen einer positiven Wirkung der bisherigen Umsetzung der DL-RL auf den Handel und die realen Einkommen Österreichs und der EU. Die Schätzungen weisen auf positive Handels- und Wohlfahrtseffekte für alle Dienstleistungsbranchen hin, die in den Anwendungsbereich der DL-RL fallen. Der IT- und Informationssektor sowie die Sektoren "Erbringung von freiberuflichen, wissenschaftlichen und technischen Dienstleistungen" und "Groß- und Einzelhandel" trugen am meisten zu den bis zum Jahr 2018 erzielten Handelsgewinnen bei. Die Ergebnisse zeigen, dass die DL-RL die österreichischen Intra-EU-Exporte und Intra-EU-Importe im Zeitraum 2010 bis 2018 um durchschnittlich 6,2% bzw. 6,7% erhöhte und durchschnittliche reale Einkommenseffekte von 0,3% im Vergleich zu einer kontrafaktischen Situation "ohne Politikänderung" bewirkte. Mit diesen Ergebnissen rangiert Österreich im Mittelfeld der EU-Länder. Die durch die DL-RL induzierten Handelseffekte für Österreich, wie auch für die gesamte EU, beschleunigten sich im Laufe der Zeit. Dies spiegelt den verzögerten Reformprozess wider, ist aber auch ein Zeichen dafür, dass die von der DL-RL induzierten Reformen Zeit brauchten, um voll wirksam zu werden.

Die Ergebnisse dieser Studie deuten auch darauf hin, dass starke Verbesserungen bei der Einhaltung und Umsetzung der Regeln der DL-RL eine wichtige Quelle für zusätzliche Handelssteigerungen und damit verbundene reale Einkommenseffekte für Österreich und die EU sein könnten. In einem kontrafaktischen Szenario einer "besten Umsetzung der DL-RL", das davon ausgeht, dass alle EU-Mitgliedstaaten ihre Reformanstrengungen auf das Niveau der Gruppe der besten Reformländer in der Stichprobe erhöhen, ergibt die Analyse für Österreich ein Intra-EU-Exportpotential von 9,5% und ein Intra-EU-Importpotential von 7,5%. Das reale könnte um zusätzliche 0,2% bis 0,4% gesteigert werden. Die errechneten Handelspotentiale sind in den von

der DL-RL erfassten Dienstleistungssektoren relativ ähnlich aber durchwegs höher als die bisher realisierten Effekte der DL-RL. Die Einkommenspotentiale reichen von 0,1% im Sektor "Erbringung von wirtschaftlichen und administrativen Dienstleistungen für Unternehmen" bis zu 0,7% im Sektor "Verlagswesen, audiovisuelle Medien und Rundfunk". Österreich zählt zu jenen EU-Ländern, die am meisten von tiefgreifenderen Reformen und einer besseren Einhaltung der Vorschriften der DL-RL profitieren könnten.

Handelsumlenkungseffekte der DL-RL (Substitution des Handels mit Drittländern durch vermehrten Intra-EU Handel) fallen moderat aus und treten in einigen bilateralen Beziehungen mit Nicht-EU-Ländern (ROW) gar nicht auf. Tiefergehende und stärkere Reformen des Dienstleistungssektors in der EU dürften daher nicht mit hohen Kosten für die ROW-Länder verbunden sein. Auf Sektorebene sind die Handels- und Einkommenseffekte, die sich aus der Umsetzung der DL-RL im IT- und Informationssektor sowie in der Gruppe der freiberuflichen, wissenschaftlichen und technischen Tätigkeiten ergeben, sehr vielversprechend und wichtig, da diese Leistungen wesentliche Inputs für viele andere Sektoren und Schlüsselfaktoren für Wettbewerbsfähigkeit und Produktivität darstellen. Nicht zuletzt liefert die Analyse Belege für die Bedeutung und die positiven Auswirkungen informeller und schnellerer Lösungsmechanismen, wie des SOLVIT-Mechanismus zur Bewältigung möglicher grenzüberschreitender Handelsprobleme im Dienstleistungssektor.

Das kontrafaktische Szenario der "bestmöglichen Umsetzung", das in der Analyse betrachtet wird, setzt eine nahezu perfekte Welt voraus, in der die Regeln der DL-RL in allen Mitgliedstaaten vollständig eingehalten und durchgesetzt werden. Damit sich diese Potentiale entfalten können, müssen die politischen Akteure in den Mitgliedstaaten in der Lage sein, die gemeinsamen Anstrengungen zur Umsetzung der DL-RL zu verstärken. Dazu zählt, unkooperatives Verhalten einzelner Länder zu verhindern. Dies könnte aus dem Anreiz resultieren, Gewinne für die eigene Exportindustrie zu erzielen und gleichzeitig die inländischen Unternehmen vor der verstärkten Importkonkurrenz zu schützen. Dabei resultieren Wohlfahrtsgewinne nicht nur aus einem Anstieg der Exporte, sondern auch aus einer Zunahme der Importe, die eine weniger effiziente teurere inländische Erbringung von Dienstleistungen ersetzt. Die bessere Umsetzung und Durchsetzung der Regeln der DL-RL hängen daher entscheidend vom Engagement Österreichs und von der Beteiligung aller Mitgliedstaaten sowie der besseren Zusammenarbeit zwischen allen europäischen Akteuren ab. Auf politischer Ebene ist daher die Stärkung der bereits bestehenden Koordinierungs- und Kooperationsmechanismen auf EU-Ebene von größter Bedeutung. Dazu zählen die Schärfung des Bewusstseins und eine Vertiefung des Wissens über die bestehenden EU-Mechanismen bei Unternehmen und auch bei nationalen Behörden, die Anhebung und Harmonisierung der Standards in den Berichten der nationalen Behörden an die EU-Stellen durch klarere und präzisere Leitlinien für die Berichterstattung sowie weitere Schulungen der Beamten. Weiters sollten die Erfassung und das Monitoring von Hemmnissen für den freien Dienstleistungsverkehr auf disaggregierter Ebene einzelner Sektoren und Länder auf der Grundlage besserer Indikatoren weitergeführt und die Zugänglichkeit der verfügbaren Informationen verbessert werden. Nicht zuletzt muss die Politik auch die Maßnahmen und Richtlinien anderer relevanter Gesetzgebungsakte und Richtlinien auf nationaler und EU-Ebene berücksichtigen, die für die vollständige Wirksamkeit der DL-RL unerlässlich sind. Diese reichen von der Wettbewerbspolitik, über Vorschriften für Infrastrukturinvestitionen (insbesondere im Bereich der elektronischen Kommunikation) bis hin zur Verwirklichung des digitalen Binnenmarktes.

1. Motivation

The four fundamental freedoms, free movement of goods, free movement of persons, free movement of services and free movement of capital and payments, form the core of the European Single Market Programme. A large number of empirical studies confirm the associated positive effects on trade integration, competition, growth and employment[1]). However, despite considerable progress, recent analyses show important remaining deficits in the full realisation of the Single Market. While this holds true with regard to all four Single Market freedoms, the largest gap to full implementation has been found for the free movement of services (Baldwin and Wyplosz, 2019; Felbermayr and Jung, 2011; Mustilli and Pelkmans, 2013; European Commission, 2021). Services sector integration and liberalisation have proven to be particularly difficult due to the multitude of administrative barriers, access restrictions and different regulatory approaches in the Member States.

The most important reform step to date towards deepening the internal market for services was taken with the Services Directive (SD)[2]). It entered into force in June 2006 and set an implementation deadline of December 29, 2009. Its intention was to advance the removal of existing obstacles to the free movement of services and the freedom of establishment of services providers as well as to spur administrative simplification (for example through the establishment of the so-called "Points of Single Contact" (PSC), mutual assistance between authorities). The implementation of the SD and subsequent reform efforts led to a removal of a number of obstacles, but many administrative barriers remain. Even though the SD applies equally to all included services ("horizontal" directive) and the transposition period was set uniformly, there is still considerable heterogeneity in the transposition and implementation as well as in the removal of barriers at the country and sector level (Monteagudo et al. , 2012; Kox and Lejour, 2006). This represents an important stumbling block to the functioning of the internal market for services.

In 2021 the SD celebrated its 15th anniversary. This motivates to take stock of its trade and income effects achieved so far, as well as to assess unexploited potentials due to implementation deficits. This is important, not least because services make up a large and growing part of the European and Austrian economies and are a particularly important factor for overall competitiveness and growth. Trade liberalisation in services is associated with an increase in innovation (Coelli et al., 2016), competition and productivity (Badinger et al., 2008; Malchow-Møller et al., 2015; Griffith et al., 2010), leading to better opportunities for job creation, lower prices for consumers and an increase in welfare (Vogt, 2005; Francois and Hoekman, 2010; Heuser and Mattoo, 2017). As services are often also essential inputs for industry, the

[1]) For an overview of the results of ex-ante studies on the Single Market Programme, see Baldwin and Venables (1995). Recent empirical studies include Dhingra et al. (2017), Mayer et al. (2019), Wolfmayr et al. (2019), Felbermayr et al. (2020) or Head and Mayer (2021). Evidence for Austria is provided by Breuss (2013, 2015), Oberhofer and Streicher (2019) and Oberhofer and Winner (2015), among others.

[2]) Directive 2006/123/EC of the European Parliament and of the Council of 12 December 2006 on services in the internal market (https://eur-lex.europa.eu/legal-content/DE/TXT/?uri=celex:32006L0123).

functioning of the internal market for services is ultimately also of paramount importance for the competitiveness of European industry and its international value chains (Corugedo and Pérez Ruiz, 2014; Conway and Nicoletti, 2006; Arnold et al., 2011; Wolfmayr, 2012).

Compared to analyses of internal market effects on trade in goods, the empirical evidence on the effects on trade in services in ex-post analyses is still sparse. The most recent ex-post study can be found in Kern et al. (2021), which, however, only uses data up to 2014. The analyses by Mayer et al. (2019) or Head and Mayer (2021) examine the effect of EU integration as a whole. Felbermayr et al. (2020) also analyse the effects of different levels of EU integration (Single Market, Eurozone, Schengen) on trade in services, but not that of individual reforms such as the SD, which specifically target trade in services.

This WIFO study adds to this literature and derives realised SD trade and welfare effects as well as untapped trade and welfare potentials through more ambitious SD implementation in all Member States. A special focus is put on Austria, for which the EU internal market accounts for about three quarters of total services trade.

The empirical analysis employs bilateral trade data from the OECD TiVA database published in November 2021. The dataset covers the period from 1995 up to 2018 as well as domestic trade flows and thus provides an ideal basis for a more comprehensive ex-post analysis of SD trade effects. We apply a panel data structural gravity model and difference-in-difference analysis as suggested in Oberhofer and Pfaffermayr (2021) which also takes account of domestic trade flows. The consideration of domestic trade flows follows recent literature and is an important building block in econometrics for identifying the effects of trade policy measures (Larch et al., 2018). The difference-in-difference strategy identifies trade policy effects based on a comparison of treated bilateral trade flow changes to that of comparable untreated trade flows. Following Kern et al. (2021) we take the year 2010 as our treatment year as it is the first year of SD implementation after an implementation phase from 2006 to 2009 and compare intra-EU trade in services covered by the SD after 2009 (treatment group) to bilateral services trade between extra-EU countries as well as between EU and extra-EU countries (control group). Furthermore, we account for heterogeneous qualities of SD reforms across Member States by applying a novel country-specific indicator derived from business complaints with respect to cross-border issues reported to the SOLVIT mechanism. Complaints concerning the free movement of services more directly can be distinguished from problem areas with regard to goods trade.

Based on the parameter estimates the study derives general equilibrium trade and income effects of SD implementation up to 2018 as well as unexploited trade and welfare potentials by comparing baseline scenarios of actual implementation to alternative scenarios. Specifically, we compare the baseline to an alternative scenario of "no policy change", i. e., a situation in which the SD had never been enforced, to derive realised trade and income effects up to the year 2018. In a next step, the baseline results are compared to an alternative scenario of "best implementation" to derive further potentials for services trade included in the SD and the associated income effects. General equilibrium effects are captured by changes in multilateral resistance terms (relative trade costs towards third countries) as well as endogenous adjustments of incomes to the counterfactual scenarios using the approach suggested in Yotov et al. (2016).

The study starts by giving further background on the history and main implementation steps of the SD, describing its coverage and main features as well as its role in the multifaceted levels of the overall regulatory framework of the European internal market for services in Chapter 2. Chapter 3 presents results on assessments of regulatory reform and liberalisation efforts across Member States and services sectors during different implementation phases of the SD. Chapter 4 reviews the related literature and Chapter 5 presents the empirical model to identify trade and income effects of the SD. Chapter 6 provides details on the data and first descriptive results on the heterogeneity of liberalisation efforts based on the SOLVIT indicator. Chapter 7 discusses the results on realised trade and welfare effects of the SD as well as results on untapped trade and welfare potentials related to incomplete and heterogeneous implementation of the SD. Finally, conclusion and policy implications are provided in Chapter 8.

2. The Services Directive

2.1 Brief history of the Services Directive and its implementation

The process of European integration of services was slow and for a very long time characterised by individual and selective liberalisation steps. Even long after the decision and introduction of the internal market programme in the years 1986 to 1993, the enforcement of internal market freedoms in the services sector remained limited to individual actions before the European Court of Justice (CJEU) and the jurisdiction of the CJEU. It was not until around the year 2000 that services were given a key position in the context of the Lisbon Strategy and its goal of making the "EU the most competitive and dynamic knowledge-based economy in the world by 2010". Thus, the plan for a SD became an important part of the reform package to complete the EU's internal market. A report by the European Commission in 2002 revealed major integration deficits in the internal market for services and initiated a process that resulted in a first draft of the SD by the European Commission in 2004. The draft aimed to remove all barriers to the free movement of services and the freedom of establishment of services providers within the EU (European Commission, 2004). However, this draft, also known as the "Bolkestein proposal", was particularly controversial for two reasons: First, the plan to apply the country-of-origin principle[3]) was suspected to run the risk of levelling employment conditions, wages, consumer and labour protection across the EU. Secondly, it was feared that the draft would lead to an excessive commercialisation and competition in core areas of public services, such as education, health and water supply.

The Commission then prepared an amended draft directive that prevented the inclusion of such sensitive areas and defused some of the most controversial elements of the proposal. For example, the country-of-origin principle was replaced by the principles of non-discrimination and of free access and exercise of activity unless for strictly specified reasons (Nerb et al., 2006). This amended draft directive (Directive 2006/123/EC) was approved by the European Parliament and entered into force after the European Council's decision in June 2006 with an implementation deadline of December 29, 2009.

In the transposition period from 2006 to 2009, national governments were obliged to screen services legislation and to identify services restrictions, to question their justification as well as to examine their compatibility with the Services Directive. Member States were only allowed to keep the restrictions that passed the test and were supposed to abolish or amend the others. Furthermore, Member States had to set up "Points of Single Contact" (PSC) providing all necessary documents and information and enabling foreign services providers to complete all procedures and formalities needed for access to a country's services activities remotely and electronically.

[3]) The country-of-origin principle implies that any service that complies with the regulations of the home country in one EU Member State may also be offered and provided in any other Member State without further restrictions or requirements.

Figure 2.1: The most important implementation steps 1986 to 2021

Source: Pelkmans (2019), WIFO presentation.

Due to various aspects, this implementation phase was unique in its kind (Mustilli and Pelkmans, 2013). It was not only based on a detailed programme of obligations in terms of national implementation but was also accompanied by the European Commission in joint implementation committees and by cooperation between the Member States. Furthermore, in order to take into account, the complexity of the SD, a detailed Implementation Handbook was prepared

(European Commission, 2008). In addition, the Directive required "mutual evaluation" of the implementation and screening processes by the Member States in 2010. Based on this "mutual evaluation" assessment, the European Commission presented a first Communication on the implementation of the SD in 2012 (European Commission, 2012). A further assessment and mapping of administrative and legal barriers in the sectors covered by the Directive took place in 2015 and most recently in April 2021 (European Commission, 2015a, 2021). An overview of the results of these assessments is provided in Chapter 3.2 and Chapter 3.3.

Other important steps, not directly related to the SD but facilitating its implementation, were taken in 2008 with the introduction of the Internal Market Information System (IMI). IMI is an important online tool to support authorities in cross-border exchanges of information and administrative cooperation in the implementation of internal market legislation. The 2017 Services Package included initiatives for the introduction of the European electronic services card (services e-card). It improved the notification process of draft national legislation on services, an assessment of the proportionality of national rules on professional services and guidance on national reforms of professional regulation. Furthermore, the 2015/16 Single Market Strategy, just as in the New Strategic Agenda 2019-2024 gave priority to an unlocking of untapped potentials in the services sector as well as to the deepening and strengthening of the internal market and its four freedoms. In April 2021, a new assessment of the implementation of the Directive was carried out by comprehensively mapping legal and administrative barriers in selected services sectors. In parallel to all these steps, the Commission has also tried to promote the enforcement of internal market rules and the transposition of its directives through mechanisms such as the so-called Single Market Scoreboard or also the SOLVIT mechanism to challenge breaches of internal market rules (Wolfmayr, 2019).

2.2 The Services Directive in detail

The 2006 SD obliges Member States to ensure the free movement of services and the freedom of establishment of services providers in their territory. Restrictions on these freedoms are excluded by a catalogue of prohibited requirements defined in the Directive. These include, for example, the prohibition of an establishment requirement, prior authorisation requirement or any nationality/residence requirement for the provision of a service. A complete list of impermissible requirements can be found in Art.16 Par. 2 of the SD[4]). Furthermore, all additional requirements are inadmissible if they are discriminatory (treat nationals and non-nationals unequally), not necessary for reasons of public policy, public security or public health protection, and not proportionate beyond the objective to be achieved. The SD therefore offers individual Member States leeway to maintain their own provisions if they comply with these principles.

In addition to the freedom of establishment and the freedom to provide services, a main pillar of the Directive is administrative simplification. This should be ensured in each Member State by: i) a general obligation to review and simplify procedures and formalities; ii) the obligation to establish "Points of Single Contact" through which providers must be able to obtain all relevant information and complete all procedures and formalities relating to cross-border access

[4]) Table 6 in Mustilli and Pelkmans (2013) also gives an overview of the prohibited barriers.

provision of service activities; iii) the obligation for Member States to ensure that all procedures and formalities may be easily completed, at a distance and by electronic means.

Box 2.1: Sectors covered by the Services Directive (2006/123/EC)

- Business services and other professional services (lawyers, architects, accountants, tax consultants, consultancies, communication and marketing agencies, patent attorneys, accreditation and testing services, sports agents, art management, personnel agencies, interpreters, veterinarians, surveyors, etc.)
- Information services (publishing houses, news agencies, computer programming)
- Construction
- Retail and wholesale trade
- Real estate
- Tourism, leisure and household services (hotels, restaurants, travel agencies, tourist guides, amusement parks, household-related services)
- Private education and private healthcare

The Directive has a horizontal character and therefore applies to all included sectors in the same way. In addition, there were no differences in the transposition period between sectors. Although its scope is broad, the Directive lists a number of sectors that fall outside its scope. These include some sensitive sectors as well as sectors for which there are separate Community actions or EU legislative acts such as non-commercial services of general interest (e.g., public, cultural or educational activities), financial services, electronic communications services and networks, transport, services provided by temporary employment agencies, health care, audio-visual services, gambling, services related to public authorities, social services and private security services. Box 2.1 provides an overview of the main sectors covered by the SD.

The contribution of services to annual growth of value added in the EU and in Austria is shown in Figure 2.2. Value added growth generated by services exceeded that of industry in most years since 1995[5]). At the same time included sectors in the SD contributed more than excluded sectors. These findings also hold for Austria.

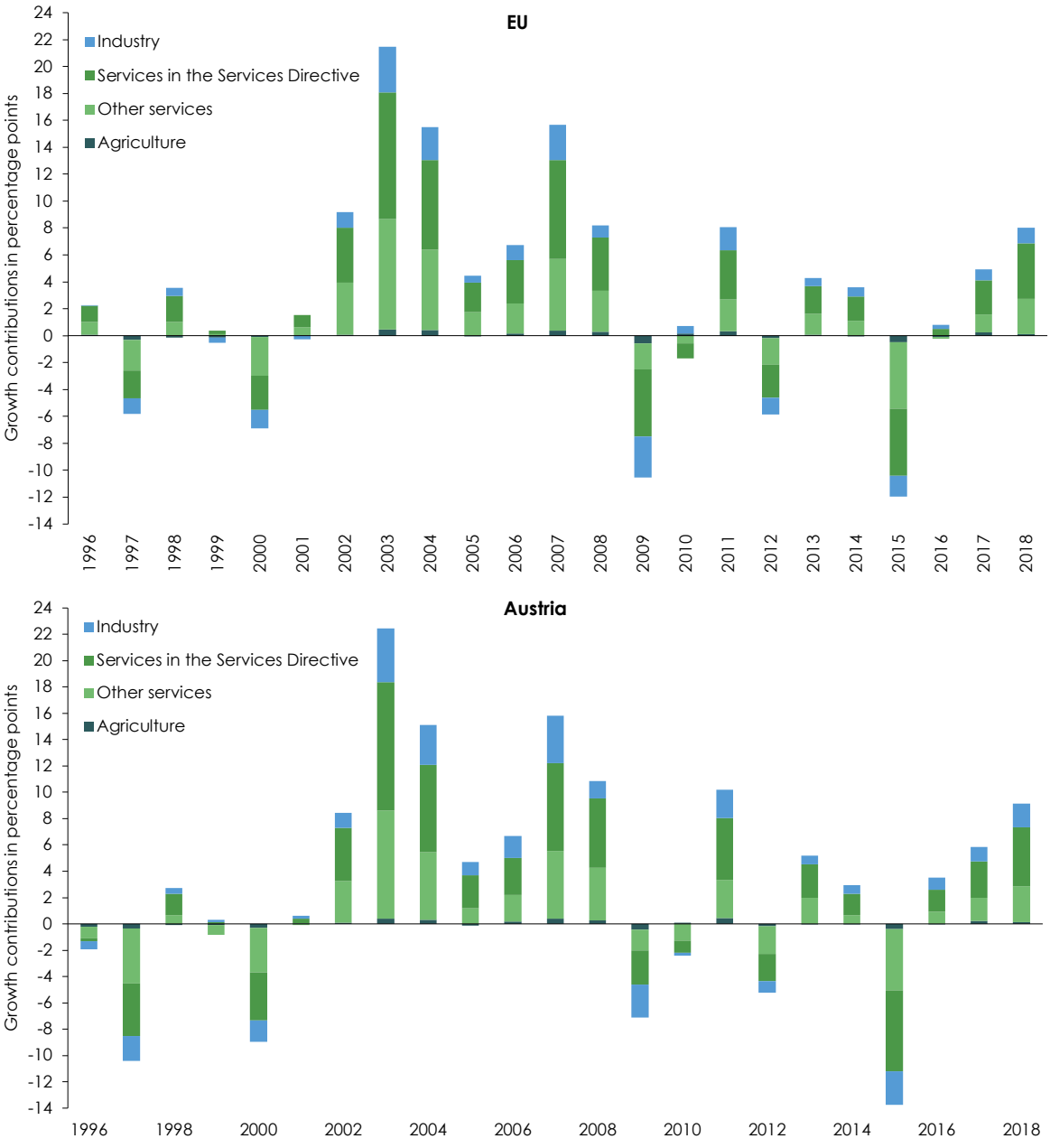
In 2018, the sectors covered by the SD generated 56.3% of the gross value added of the EU services sector (Figure 2.3). Cross-border trade in services within the EU is also dominated by services included in the SD (Figure 2.4)[6]). A share of 62.4% of intra-EU trade is accounted for by these sectors. In Austrian exports to the EU, 52.4% are attributable to exports of the sectors covered by the SD. Of the sectors not covered by the Directive, the transport sector is the most

[5]) The reported values refer to nominal value added sourced from the OECD TiVA database. An analysis on the basis of real value added or employment taken from the AMECO database leads to the same conclusions.

[6]) The data presented and sourced from the OECD TiVA database only cover cross-border services provision. Other forms, such as consumption abroad (as in tourism), supply through establishments ("commercial presence") or the posting of natural persons are not captured in these data. Travel is mainly supplied through "consumption abroad" and is therefore not part of the reported OECD TiVA data for "accommodation, food services, restaurants".

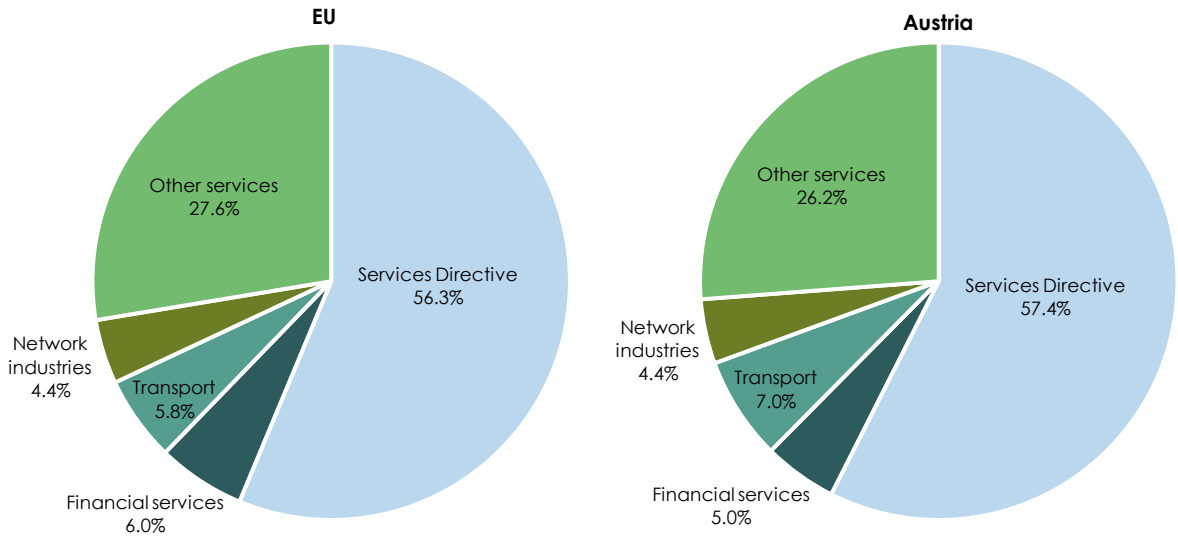
important with a share of 19.2% in intra-EU trade; in Austrian services exports this sector takes an even larger share of about 31%.

Figure 2.2: Contributions of different sectors to nominal gross value added growth in the EU and in Austria



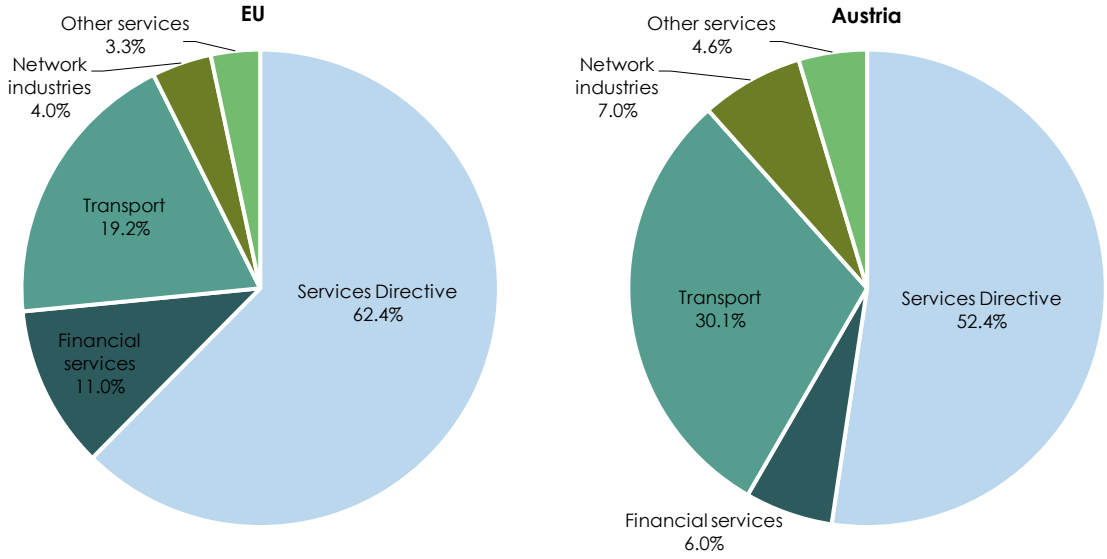
Source: OECD TiVA (2021 release), WIFO calculations.

Figure 2.3: Nominal gross value added by services sectors, 2018



Source: OECD TiVA (2021 release), WIFO calculations.

Figure 2.4: Nominal services exports to the EU by services sectors, 2018



Note: The data presented only cover cross-border services provision. Other forms, such as consumption abroad (as in tourism), supply through establishments ("commercial presence") or posting of natural persons are not captured in these data. Travel is mainly supplied through "consumption abroad" and is therefore not part of the reported OECD TiVA data for "accommodation, food services".
Source: OECD TiVA (2021 release), WIFO calculations.

Table 2.1 summarises intra-EU export shares and growth rates by services sectors for the years 1995 to 2006 (period before the adoption of the SD), for the years 2007 to 2018 as well as for

individual sub-periods during the implementation phase. The table distinguishes between included sectors and sectors not covered by the SD[7]).

Table 2.1: Intra-EU exports of services by sector

ISIC Code	Industry name	2018 Percentage shares	1995-2006	2007-2018	2006-2010	2010-2014	2014-2018
			Percentage changes				
	Included sectors	**62.42**	**103.77**	**34.63**	**14.00**	**23.35**	**13.20**
D41T43	Construction	0.48	106.1	4.3	6.0	1.9	13.9
D45T47	Wholesale and retail trade	23.28	72.3	8.9	13.1	12.4	0.1
D55T56	Accommodation and food service activities	5.05	79.0	10.8	0.8	9.9	14.9
D58T60	Publishing	4.68	108.2	50.2	12.7	25.9	25.7
D62T63	IT and other information services	8.38	299.3	193.9	42.6	51.6	55.2
D68	Real estate activities	1.10	86.9	20.1	14.1	18.6	6.3
D69T75	Professional, scientific, technical activities	11.68	177.9	36.7	3.5	40.1	15.6
D77T82	Administrative and support services	7.77	161.3	71.2	34.6	36.4	14.1
	Excluded sectors	**37.58**	**145.95**	**19.53**	**9.84**	**18.80**	**7.40**
D35	Electricity, gas	1.26	219.2	17.8	-9.7	22.6	0.6
D36T39	Water supply, sewerage, waste management	0.22	178.9	-47.4	-59.5	13.6	29.5
D49	Land transport	9.71	112.0	28.6	9.6	22.6	12.8
D50	Water transport	2.05	132.8	-19.8	17.8	-6.0	-14.0
D51	Air transport	3.17	123.3	9.0	5.2	11.4	2.5
D52	Warehousing, support activities for transport	4.24	115.9	23.5	21.8	16.9	5.1
D53	Postal and courier activities	0.64	167.3	14.7	2.4	7.7	13.7
D61	Telecommunications	2.15	249.6	42.2	30.1	10.7	5.9
D64T66	Financial and insurance activities	11.04	202.7	21.4	5.6	31.5	8.1
D84	Public administration and defence	0.36	101.9	53.2	21.7	21.6	18.6
D85	Education	0.82	138.6	49.6	30.4	17.2	17.7
D86T88	Human health and social work activities	0.39	88.0	58.8	40.8	16.1	12.0
D90T93	Arts, entertainment and recreation	1.19	124.4	15.9	7.6	4.9	20.3
D94T96	Other service activities	0.37	69.9	17.0	9.9	9.4	11.6
D97T98	Activities of households as employers	0.00	-	-	-	-	-
D35T98	**Total services**	**100.00**	**119.0**	**28.5**	**12.3**	**21.5**	**10.9**

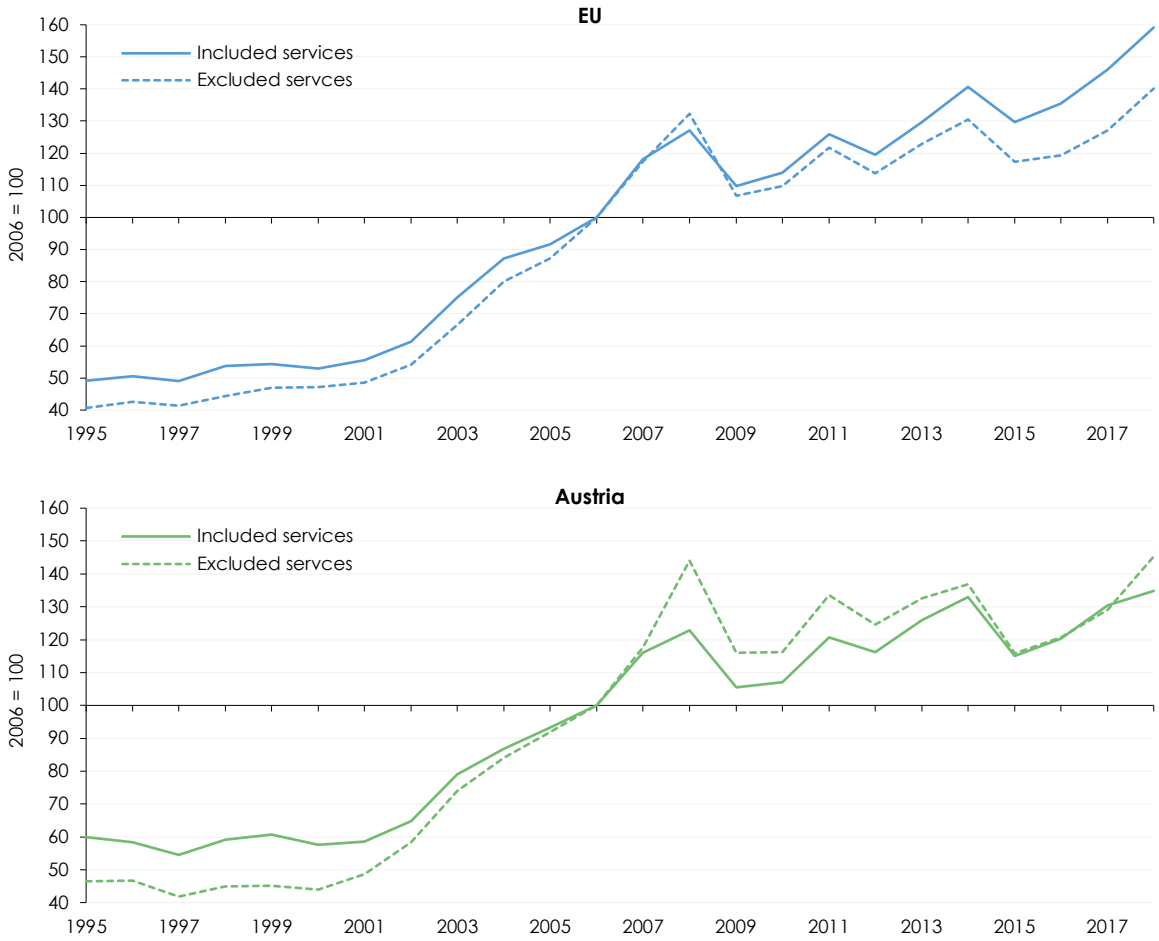
Note: The data presented only cover cross-border services provision. Other forms, such as consumption abroad (as in tourism), supply through establishments ("commercial presence") or posting of natural persons are not captured in these data. Travel is mainly supplied through "consumption abroad" and is therefore not part of the reported OECD TiVA data for "accommodation, food services".
Source: OECD TiVA (2021 release), WIFO calculations.

Intra-EU services exports increased considerably over the entire period under consideration. Trade in services expanded significantly faster before the adoption of the SD in 2006 than afterwards. This change in trend starts after the 2009 financial market crisis and its aftermath in the Eurozone, but applies to both the sectors included and excluded by the SD. Only econometric analysis will identify other influencing factors such as the financial market crisis and sovereign debt crisis and separate them from the possible influence of the SD. The descriptive statistics in Table 2.1 also reveal that the included sectors had lower growth rates than the

[7]) It should be noted that education and health services (ISIC D85 to D88) are a borderline case. In the case of private provision, they are included by the Services Directive. However, if these services are predominantly publicly provided, they are not covered by the Directive. Furthermore, due to the higher aggregation level matching services activities covered by the SD to the relevant ISIC industry classifications given in the OECD TiVA dataset comes with some imprecision. Publishing activities represented by ISIC -group D58T60 include audio-visual and broadcasting services, explicitly excluded by the SD. Professional services under the heading of ISIC-group D69T75 include notaries, medical professions and others, that are part of the SD.

excluded sectors before 2006, while the opposite is true in the overall period thereafter and in all sub-periods of the implementation phase[8]). This is consistent with the finding in Kern et al. (2021). This is also evident in Figure 2.5 for Austria. After the year of the financial market crisis, the development of Austrian intra-EU27 exports flattens out even more strongly than in the average of the EU countries, but the growth curve of the sectors excluded from the SD remains flatter than that of included sectors.

Figure 2.5: Development of intra-EU exports of services by sectors covered and not covered by the Services Directive, 1995 to 2018



Note: The data presented only cover cross-border services provision. Other forms, such as consumption abroad (as in tourism), supply through establishments ("commercial presence") or posting of natural persons are not captured in these data. Travel is mainly supplied through "consumption abroad" and is therefore not part of the reported OECD TiVA data for "accommodation, food services".
Source: OECD TiVA (2021 release), WIFO calculations.

[8]) Many of the sectors not covered by the Services Directive are governed by separate sector-specific internal market rules or separate directives, some of which were initiated before the Services Directive and were thus effective for these sectors before 2006.

2.3 The Services Directive in the regulatory framework of the European internal market for services

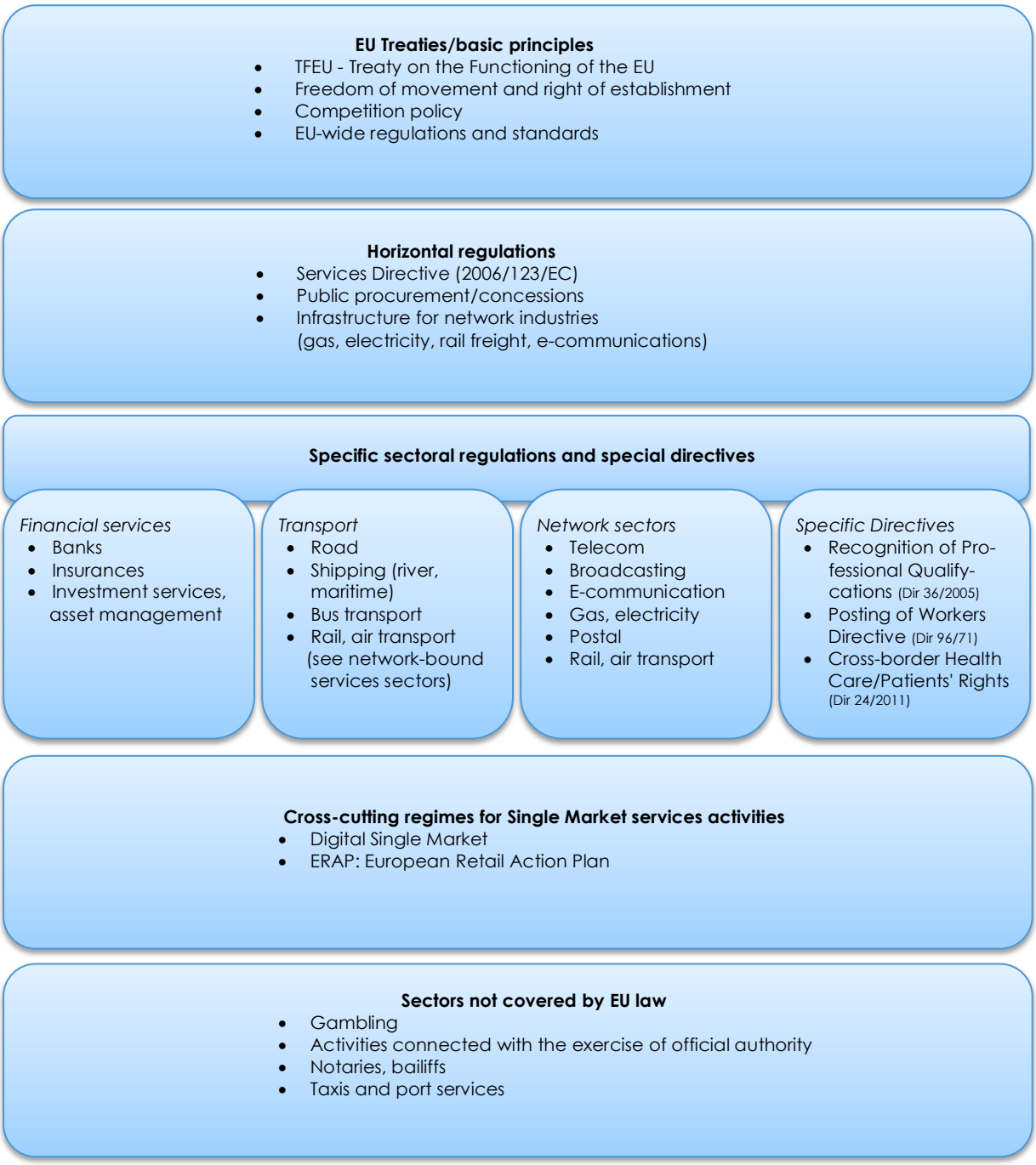
The SD is an important part of the overall regulatory framework for the internal market in services. It is embedded in a wide-ranging network of other relevant EU-legislative acts and directives relating to the services sector (Figure 2.6). The schematic representation is based on Mustilli and Pelkmans (2013, 2014). The Treaty on the European Union and the Treaty on the Functioning of the European Union (TFEU) lay down the most important fundamental principles of the EU, including freedom of movement and freedom of establishment, but also EU competition policy and EU-wide regulations and standards.

The next level shows important horizontal regulations. The most important of these - both in terms of scope and economic effects - is the SD. It regulates the internal market for all services covered by the Directive (see Box 2.1). Another important horizontal regulation concerns public procurement. Contracts, tenders for public works and concessions should be open to all market participants in the EU on an equal footing, be transparent and pro-competitive and offer realistic opportunities to companies from all over the Union. A third horizontal regime concerns infrastructures for network industries such as gas and electricity, rail freight transport and electronic communications, in particular cross-border or EU-wide infrastructure. The EU introduced some directives and regulations, but they are still not very far-reaching and infrastructure investments remain predominantly a national competence (Mustilli and Pelkmans, 2014). In addition to all regulatory and liberalisation steps, a strategic and long-term approach to EU-wide infrastructure investments is important for the functioning of the internal market, especially as IT infrastructure for services are concerned (Pelkmans, 2019).

The SD is accompanied by sector-specific EU regulations for services that are excluded from the SD but for which there are either separate regulatory systems (e.g., financial services, transport services, network industries) or which are regulated on the basis of separate directives. Directives of relevance include the Recognition of Professional Qualifications Directive, the Posting of Workers Directive or also the Directive on Patients' Rights in Cross-border Health Care (Directive 2011/24/EU). Neither the SD nor other EU secondary-legislation covers gambling, services provided by notaries or bailiffs, taxis and port services, and activities connected with the exercise of official authority.

Of great importance for the internal services market in general, but also for the implementation of the SD, in specific, is the digital agenda presented for the first time in the 2015 strategy and the creation of the Digital Single Market (European Commission, 2015b) to remove national barriers to online transactions. Online transactions represent an important mode of delivery for many services. Furthermore, the European Retail Action Plan (ERAP) adopted in 2013 is relevant for the retail sector covered by the SD (European Commission, 2013). It sets out a strategy for improving competitiveness and enhancing the economic, environmental and social performance of the retail sector.

Figure 2.6: EU Internal Services Market Regulatory Regimes



Source: Mustilli and Pelkmans (2013, 2014), WIFO presentation.

3. Implementation of the Services Directive and achievements in removing barriers to intra-EU trade in services

3.1 The implementation process from 2006 to 2010

The uniqueness of the implementation process of the SD has already been pointed out in Chapter 2.1. In addition to the "Implementation Handbook", the comprehensive screening procedures of the rules by the Member States as well as the mutual evaluations, the SD also specifies that there will be regular and comprehensive Commission reports on the application of the Directive and the need for additional measures to further develop the internal market in services. Mutual evaluation of EU Member States has led to a more intensive exchange on the reasons, justifications and proportionality of state intervention instruments (Mustilli and Pelkmans, 2013). The implementation process following the adoption of the SD also led to greater awareness and transparency regarding existing barriers to services.

Nevertheless, the process of transposition and implementation has been highly uneven across countries and sectors. This is indicated by an Eurochambres survey conducted in 2009 among national chambers of commerce and industry on the most important aspects of the transposition process from legal and operational perspectives (Eurochambres, 2010). The results convey the status of the transposition of the Directive in terms of timeliness, completeness and correctness from a business perspective. It reveals the quality of transposition at the end of the transposition period set by the SD in 2009. The resulting classification of countries based on different qualities of implementation is revealed in Figure 3.1.

Figure 3.1: Classification of EU Member States according to the quality of implementation of the Services Directive 2006 to 2010

Category A Countries with good implementation	Category B Countries with sufficient implementation	Category C Countries with poor implementation
•Czech Republic •Estonia •Denmark •Finland •Germany •Hungary •Netherlands •Sweden •United Kingdom	•Austria •Belgium •Cyprus •France •Luxembourg •Malta •Portugal •Romania •Spain	•Bulgaria •Greece •Ireland •Italy •Latvia •Poland •Slovakia

Source: Eurochambres (2010), Kern et al. (2021), WIFO presentation.

Austria was classified as a country with only sufficient implementation. The main reason at that time was the belated transposition of the Directive into Austrian law. Another reason was that the "Points of Single Contact" (PSC) provided for in the Directive had been established, but their service was not offered under any language other than German. The adoption of the corresponding service law was blocked by the opposition parties and was only decided in 2011, two

years after the transposition deadline that was set by the Directive had expired[9]). The delay even led to infringement proceedings against Austria. Apart from Austria, only Germany and Greece were confronted with infringement proceedings; in all other Member States, transposition took place on time.

3.2 Implementation phase 2010 to 2014: uneven removal of barriers in Member States and sectors

Despite a series of legislative and enactment measures since the implementation phase from 2006 until 2010 (see Chapter 2.1), implementation of the SD remained incomplete. In addition, purely legal transposition does not ensure that the full potential of the Directive is realised. In practice, the Directive leaves Member States considerable discretion in deciding which existing rules are incompatible with the provisions of the Directive. The resulting heterogeneity in the implementation process as well as in the removal of barriers by country and sector was thus already somewhat pre-programmed[10]).

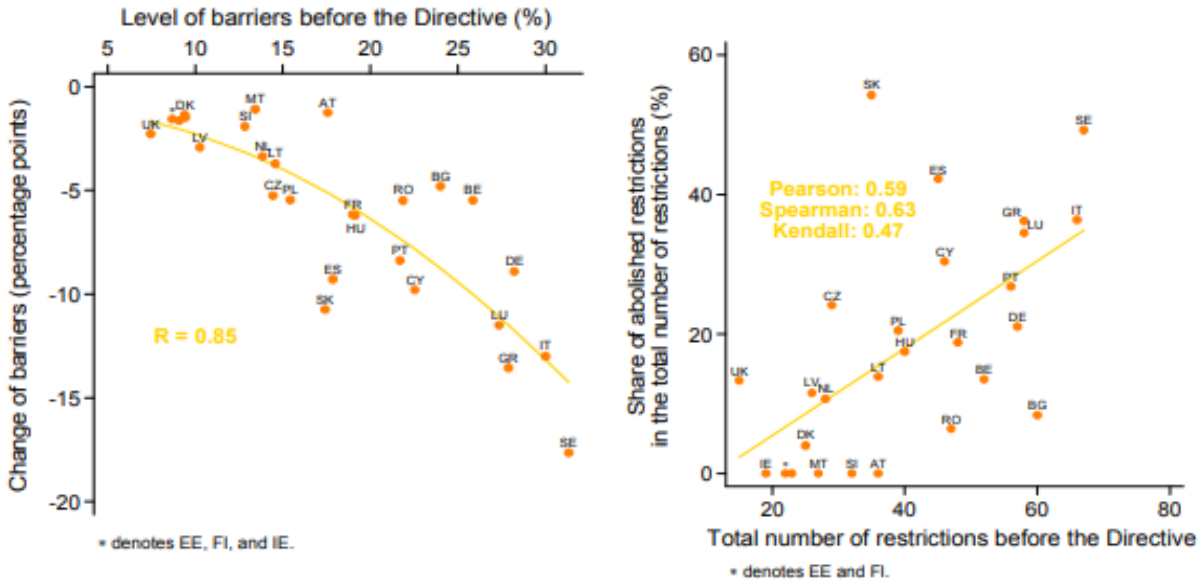
Achievements in reducing barriers to entry and facilitating the provision of services in Member States were assessed by the Commission in a report in 2010, covering the implementation phase from 2006 to 2010, and in a follow-up report in 2015, covering the period from 2012 to 2014 (Monteagudo et al., 2012; European Commission, 2015a). The results of these analyses reveal that the extensive screening of laws by Member States as well as the mutual evaluation exercise in 2010 resulted in the elimination and adaptation of many national regulatory instruments, but also that the pace of reform slowed down considerably thereafter. The detailed findings in Monteagudo et al. (2012) and the Commission's update report (European Commission, 2015a) are reproduced in Figure 3.2 to Figure 3.4.

The left-hand chart of Figure 3.2 shows that reform efforts in the first phase of transposition varied considerably between Member States, including Malta and Austria with the smallest change in barriers and Greece, Italy and Sweden with the highest. However, a low reduction in barriers does not necessarily mean high barriers after the Directive if the starting position in terms of low barriers was already a good one before the implementation of the Directive. Figure 3.2 also reflects this relationship for most countries: high initial levels of barriers resulted in higher reductions. Reform steps can be set either by the complete abolition of barriers or by partial dismantling. The right-hand chart in Figure 3.2 shows that a higher initial number of restrictions was accompanied by a higher proportion of abolition of restrictions.

[9]) The Federal Services Act was passed by the Austrian National Council in October 2011 and by the Federal Council in November 2011, and nine provincial laws (one for each province) were passed in the following months.

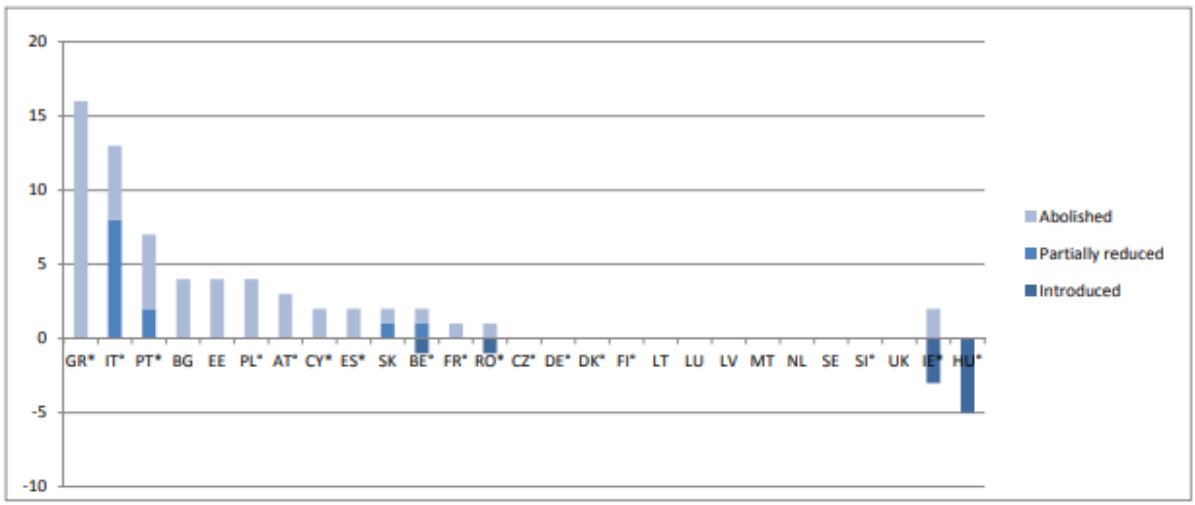
[10]) This refers mainly to the heterogeneity in procedural or technical details of regulations and laws with the same objectives, or heterogeneity due to late or incorrect transposition of the Directive in individual Member States. Heterogeneity of regulations that originates in different national preferences and diversity is wishful also in an economic sense.

Figure 3.2: Reducing barriers to intra-EU trade in services in the implementation phase 2006 to 2011



Source: Monteagudo et al. (2012), p. 58.

Figure 3.3: Reducing barriers to intra-EU trade in services in the implementation phase 2012 to 2014



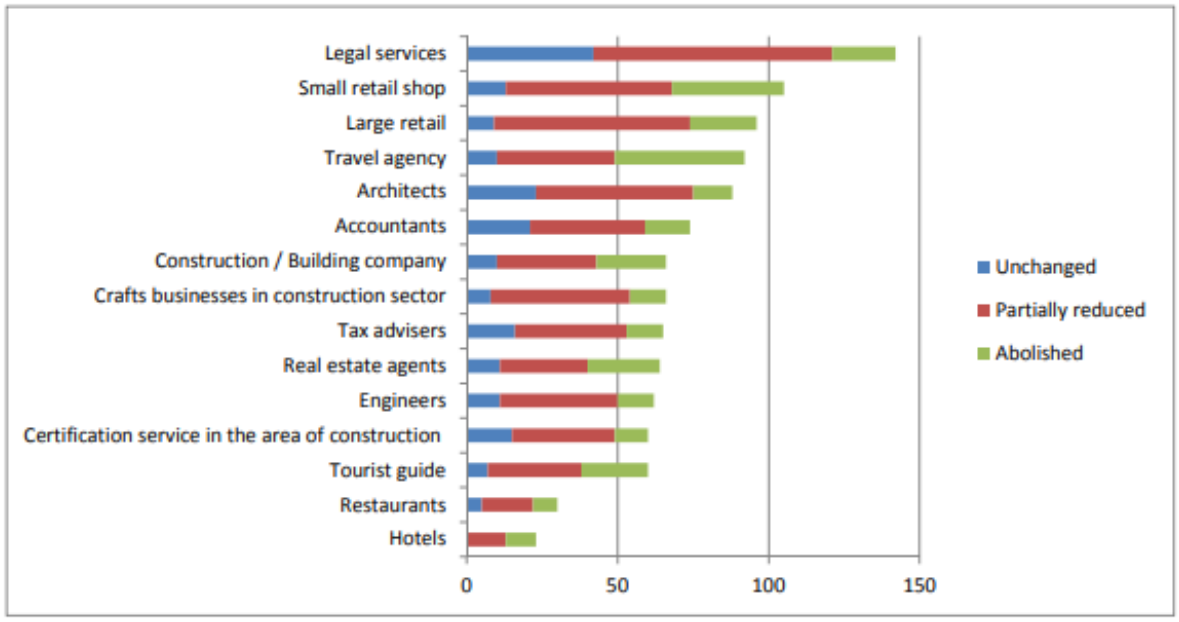
Note: * indicates MSs with economic adjustment programmes in 2012-2014, ° indicates MSs with one or more CSRs on services in 2012-2014).
Source: European Commission (2015a), p. 2.

Figure 3.3 reveals that reform efforts in the period from 2012 to 2014 slowed down significantly compared to the first implementation phase (2006 to 2011) and remained highly uneven across Member States. In seven Member States no reform measures were taken during this period, in

only three more significant steps were taken. In Hungary, previously achieved reforms were even reversed. This moderate performance occurred despite the fact, that some of the Member States received country-specific recommendations for services sector reforms in the framework of the macroeconomic adjustment programme that also included reforms in the services sector, or in the framework of the European Semester.

Figure 3.4 provides an overview of the reform steps by services sectors covered in the assessment of 2015[11]). It shows both the differences in the intensity of regulation in the individual services sectors and the differences in terms of the abolition or partial dismantling of restrictions. Legal services are the most regulated, followed by retail trade, travel agencies and architects, but these are not the activities with the highest reform effort. In terms of the number of barriers completely abolished (green bars), travel agencies and tourist guides, hotels, construction and the real estate sector rank highest.

Figure 3.4: Reform steps 2009 to 2014 by services sectors



Source: European Commission (2015a), p. 3.

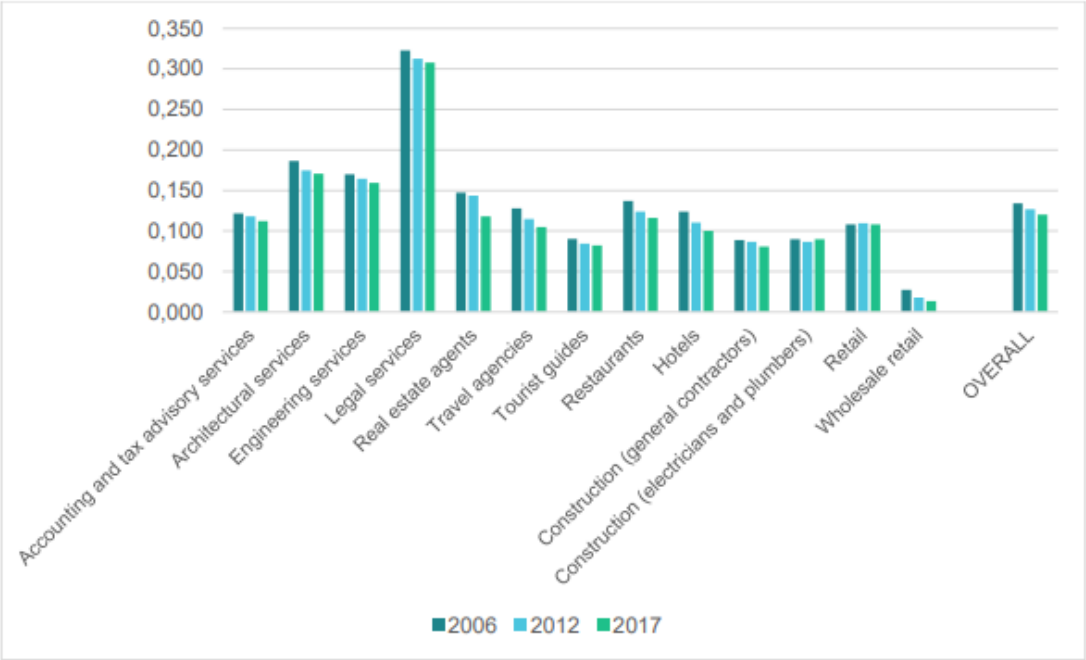
[11]) The analysis did not cover the full range of services sectors included in the Services Directive but referred to the 15 most important ones. Sectors excluded from this analysis but covered by the Directive include: training and private educational services, rental and leasing services (including car rental), information society services (e.g. printing and internet publishing, news agencies, computer programming), some business-related services (e.g., advertising, office maintenance, management consultancy, event organisation, debt collection and recruitment services) and leisure services other than travel agencies (e.g., sports centres and amusement parks).

3.3 The current situation and company assessments of the most important barriers

The most recent analysis of services barriers was presented by the European Commission in April 2021 (European Commission, 2021). Again, the assessment did not cover the full range of services sectors included in the SD. The research covered 13 different services sectors, which largely coincide with the selection of sectors in the initial assessments (Monteagudo et al. 2012; European Commission, 2015a). However, the results are not entirely comparable with the previous analyses due to the different methodology in the assessment of the respective restrictions. While the first progress reports were based on assessments by Member States, the 2021 evaluation was based on an extensive screening and evaluation of the relevant legislative texts and acts for the dates 2006, 2012 and 2017 by an external contractor.

Overall, however, they reveal a similar picture to the earlier assessments. Dismantling of barriers to the internal market for services proceeded very slowly. Apart from the already more reform-minded sectors in the first phase (hotels, travel agencies and real estate agents), most reform steps from 2012 to 2017 were set in the area of auditing and tax consultancy. The moderate reform pace conveyed by this study as a whole is likely to have led the European Commission to launch infringement proceedings against 27 Member States in 2019[12]).

Figure 3.5: Status and evolution of barriers to intra-EU trade in services 2006, 2012 and 2017



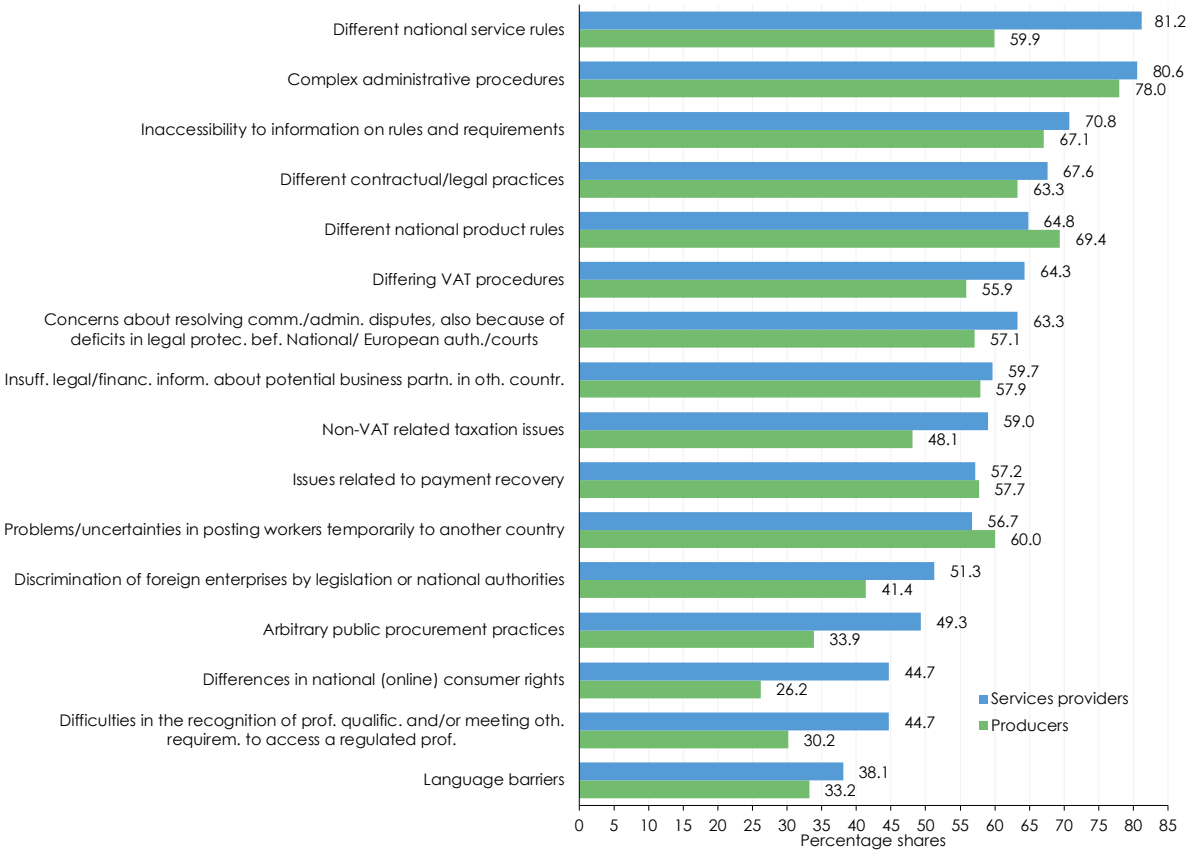
Source: European Commission (2021), p. 5.

[12]) https://ec.europa.eu/commission/presscorner/detail/en/IP_19_467.

A 2019 Eurochambres business survey of 1,107 respondents from 27 Member States provides insights into the most significantly perceived barriers to the internal market for goods and services by European businesses (Eurochambres, 2019)[13]). The results are presented in Figure 3.6. Services providers clearly judge the Single Market differently from producers. With only a few exceptions, they consistently face higher barriers than industrial companies. The most important barrier to trade is seen in "different national regulations on services". At 81.2%, the share of services companies that see these differences as particularly relevant is also significantly higher than the share of industrial companies that see this in relation to "different national product regulations" (69.4%). It is interesting to note, however, that "different national services regulations" are also a very important obstacle for around 60% of industrial companies, clearly highlighting the interdependence between trade in goods and trade in services.

Figure 3.6: The most important barriers in the services sector from a company perspective

Services providers and producers in comparison



Source: Eurochambres (2019).

[13]) The survey excluded companies from the United Kingdom due to the then already foreseeable Brexit.

4. The economic impact of the Services Directive - a literature review of previous analyses

There is a wide range of findings in the literature on the effects of the SD. The most important studies and results are summarised in Table 4.1 and Figure 4.1. The diversity of results is due to different methodologies, different coverage in terms of countries, sectors, time periods as well as different coverage of modes of supply (cross-border trade, foreign direct investment). The existing empirical literature can be divided into four groups, each of which is discussed and characterised below.

The first group of empirical analyses on the SD are ex-ante studies based on the original Bolkestein proposal of 2004 and therefore assume full implementation of the initially proposed country-of-origin principle (see chapter 2.1). The ex-ante estimates range from a 5% to 60% increase in intra-EU services trade and from a 20% to 40% increase in intra-EU foreign direct investments. The EU-GDP effects were estimated to range from 0.1% to 0.8 % and employment growth was calculated to reach 0.3% to 0.85%.

The second group comprises ex-ante analyses based on the finally adopted 2006 SD. Compared to the original Bolkestein draft, Copenhagen Economics (2005b) calculated between 7% and 9% lower EU-GDP effects based on the final version. de Bruijn et al. (2008) and Badinger et al. (2008) concluded that the effects of the 2006 SD would about one third lower than in the original Bolkestein draft.

All ex-ante studies have in common that they assume complete and homogeneous implementation of the SD in the Member States. In addition, some of them are based on the product market indices of the OECD, which, however, do not reflect the situation of regulations within the EU but rather barriers vis-à-vis third countries (Monteagudo et al., 2012). Furthermore, all ex-ante analyses except the analyses by Copenhagen Economics, are based on the assessment of the trade or direct investment effects in Kox et al. (2004). The Kox et al. (2004) studies measure obstacles within the EU by a heterogeneity index revealing the heterogeneity of regulations between the Member States. They thus focus on the reduction of trade barriers through greater harmonisation of regulations. All ex-ante studies except the analysis by Lejour et al. (2008) capture the effects of the SD on cross-border intra-EU services trade and exclude effects from the freedom of establishment and thus the effects on intra-EU foreign direct investments.

The third group of studies estimated the effects of the SD by relying on assessments of the actual implementation until 2011 (Monteagudo et al., 2012) or until 2014 (European Commission, 2015a). Measures revealing the actual implementation process by country and sector were taken from the comprehensive surveys and analyses of trade and establishment barriers in Member States before and after the implementation date of 2009 (see also Chapter 2.1). In contrast to all other studies reviewed, the calculated effects include the trade-liberalising effect of the SD as well as liberalisation effects on direct investment. Their calculations are based on estimated elasticities of barriers to trade and FDI from a gravity model of trade and FDI. Intra-EU trade in services increased by 7.2% due to the SD, intra-EU foreign direct investment by about 4% and GDP by 0.8%. While these figures reflect actual implementation by 2014, different scenarios assuming a more ambitious dismantling of barriers yield further potential. In the most

ambitious scenario that assumes Member States moving towards the level of restrictions of the top five most reforming countries in the EU per sector (resulting in a de facto full implementation of the SD), additional EU-GDP gains of 1.8% could be achieved and trade could increase by another 7.5%.

To date, there are only two ex-post studies on the effects of the SD. Dettmer (2015) finds hardly any significant effects. However, this could be due to the rather short time series with data only up to 2010 and the choice of 2006 as the year of implementation. Thus, an immediate implementation of the SD in all Member States is assumed in 2006 directly after the entry into force of the Directive, although the Directive itself set an implementation phase until 2009. Kern et al. (2021) examined the effects of the SD with data extending into 2014 and fixed the year 2010 as the date of full implementation of the Directive. Their estimates reveal a strong SD impact on services trade. They find an increase in intra-EU services trade from a lower bound of 29% to an upper bound of 67% with an associated effect on total welfare (real GDP) of 0.39% to 1.32%. In contrast to Monteagudo et al. (2012) and the European Commission (2015a), the effects on direct investment are again excluded from the analysis.

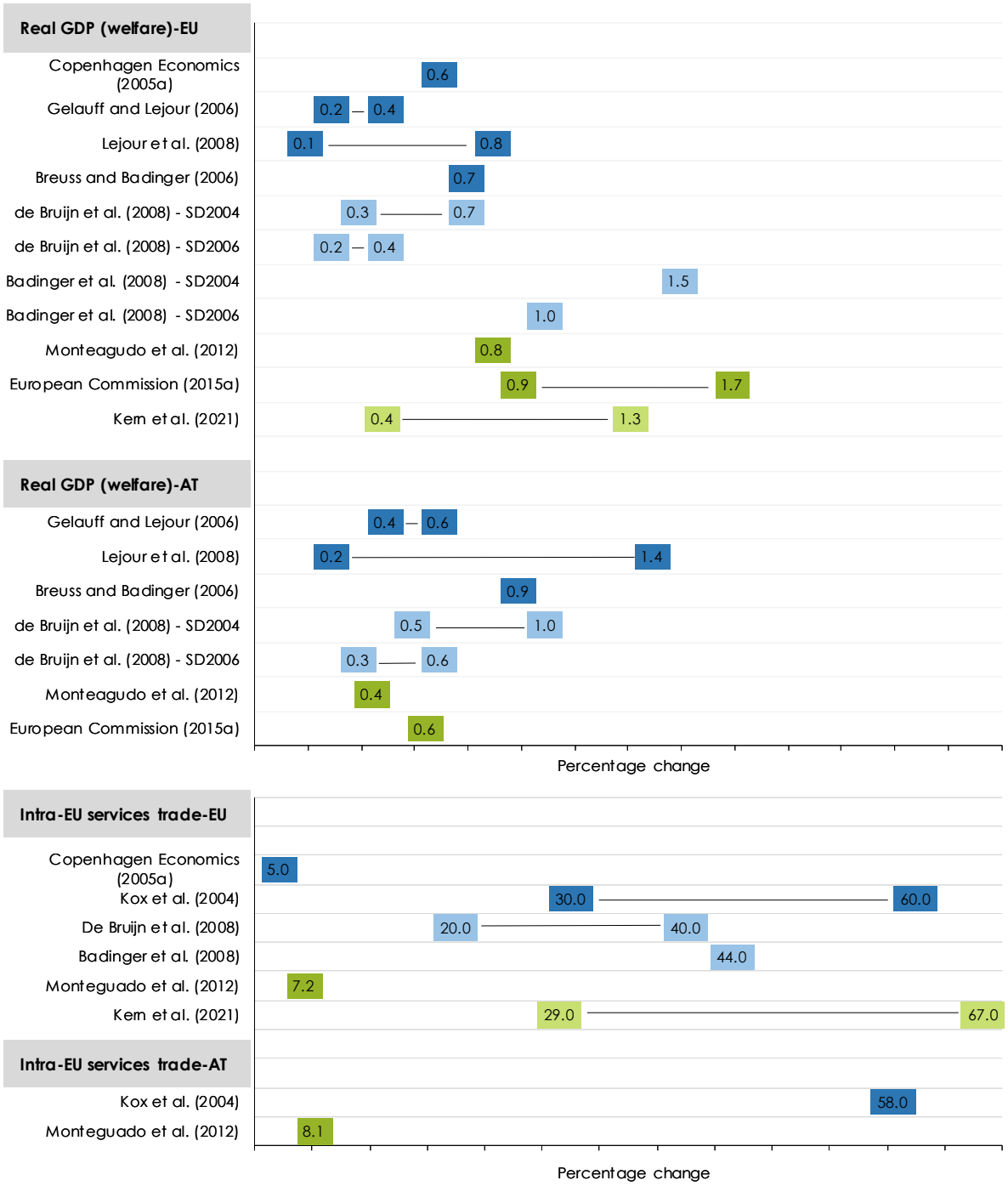
As to Austria, the literature review of ex-ante studies reveals GDP effects from 0.2% to 1.4%, intra-EU services trade effects of 58% for exports and 56% for imports, and intra-EU foreign direct investment effects of 36% for Austria's outward direct investment and 65% for inward direct investment. The study of the European Commission (2015a) based on the progress of implementation until 2014 results in an Austrian GDP effect of 0.35 to 0.6%, and additional potentials - in case of a de facto full implementation of the Directive - of up to 2.4% (Monteagudo et al. 2012). Austrian intra-EU services trade was calculated to have increased by around 8% as a result of reforms induced by the SD. Here, too, potentials of between 4.2% to 6.8% are calculated with an ambitious implementation of the Directive. The model calculations in Kern et al. (2021) show a statistically insignificant intra-EU services trade effect for Austria.

Table 4.1: Economic effects of the Services Directive in previous literature

Source	Method	Countries	Impacts (percentage changes)							
			Intra-EU trade in services		Intra-EU FDI in services		Real GDP (welfare)		Employment	
			EU	Austria	EU	Austria	EU	Austria	EU	Austria
Ex-ante studies on the basis of the "Bolkestein proposal"(SD2004: including country-of-origin principle)										
Copenhagen Economics (2005a)	CGE Model (CETM)	EU-25	5.0		-		0.6		0.3	
Kox et al. (2004)	Gravity equation	EU-14 (BE, LU together)	30.0-60.0	Ex: 58.0 Im: 56.0	20.0-40.0	Out: 36.0 In: 65.0				
Gelauff and Lejour (2006)	CGE Model (WorldScan)	EU-19 (BE, LU, together; LT, LV, EE, CY, MT comb.)	30.0				0.2-0.4	0.4-0.6		
Lejour et al. (2008)	CGE Model (WorldScan)	EU-19 (BE, LU, together; LT, LV, EE, CY, MT comb.)			20.0-35.0		0.1-0.8	0.2-1.4		
Breuss and Badinger (2006)	Econometric partial equilibrium	EU-11 (DK, LU, IE, PT excl.)	44.0				0.7	0.9	0.85	1.1
Ex-ante studies on the basis of the Services Directive 2006 (SD2006)										
Copenhagen Economics (2005b)	CGE Model (CETM)	EU-25					7.0-9.0 lower effects of SD2006		2.0 lower effects of SD2006	
de Bruijn et al. (2008)	CGE model (WorldScan)	EU-19 (BE, LU, together; LT, LV, EE, CY, MT comb.)	20.0-40.0				SD2004: 0.3-0.7; SD2006: 0.2-0.4	SD2004: 0.5-1.0; SD2006: 0.3-0.6		
Badinger et al. (2008)	Econometric partial equilibrium	EU-11 (DK, LU, IE, PT excl.)	44.0		20.0		SD2004: 1.5; SD2006: 1.0			
Studies on the basis of realised changes in services trade and FDI restrictions										
Monteagudo et al. (2012)	Gravity model and CGE Model (QUEST)	EU-28	7.2 (Pot. 2.9-7.5)	Ex: 8.1 (Pot. 4.2-6.8)	3.8 (Pot. 1.8-8.8)		0.8 (Pot. 0.4-1.7)	0.35 (Pot. 0.9-2.4)		
European Commission (2015a)	Gravity model and CGE Model (QUEST)	EU-28					0.9-1.7	0.55		
Ex-post studies										
Kern et al. (2021)	Structural gravity model	EU-28 + 15 non-EU	29.0-67.0	Not significant			0.39-1.32			

Source: Monteagudo et al. (2012), Kern et al. (2021), WIFO presentation.

Figure 4.1: Range of macroeconomic effects of the Services Directive in previous literature



Note: Dark blue=ex-ante Bolkestein proposal 2004; light blue=ex-ante Services Directive 2006; dark green=actual implementation of the Services Directive; light green= ex-post.
Source: Monteagudo et al. (2012), Kern et al. (2021), WIFO presentation.

5. Structural gravity model for services trade and empirical specification

To estimate the trade and real income effects of the Services Directive we set up a panel data structural gravity model for bilateral industry level services trade which is based on Oberhofer and Pfaffermayr (2021). The applied empirical approach is fully consistent with the structural gravity trade model as formulated by Anderson and van Wincoop (2003) or Yotov et al. (2016) and, supressing the services industry index k for the moment, reads as:

$$s_{ijt} = t_{ijt}^{1-\sigma} \kappa_{it} \, \Pi_{it}^{\sigma-1} \mathrm{P}_{jt}^{\sigma-1} \theta_{jt} \, e^{\mu_{ij}} + \eta_{ijt} \coloneqq e^{z'_{ijt}\alpha + \beta_{it(\alpha,\mu)} + \gamma_{jt(\alpha,\mu)} + \mu_{ij}} + \eta_{ijt} \qquad (5.1)$$

For a given service industry, $s_{ijt}=X_{ijt}/Y_{t,W,}$ measures the share of bilateral exports from country i to country j year t (X_{ijt}) in total world output $Y_{t,W}$ in the same year and the same industry. Since domestic trade flows are included export shares over all countries C sum up to 1:

$$\sum_{i=1}^{C} \sum_{j=1}^{C} s_{ijt} = 1$$

Trade frictions are denoted by $t_{ijt}^{1-\sigma}$ with $\sigma > 1$ as the price elasticity of demand (elasticity of substitution) and are modelled as

$$t_{ijt}^{1-\sigma} = e^{z'_{ijt}\alpha}$$

with z'_{ijt} representing a vector of time-varying bilateral trade barriers and α their respective vector of parameter values. The terms κ_{it} and θ_{jt} refer to the world output share of country i and the world expenditure share of country j, respectively. μ_{ij} are bilateral fixed effects capturing time-invariant bilateral trade frictions.

$\Pi_{it}^{\sigma-1}$ and $\mathrm{P}_{jt}^{\sigma-1}$ are the outward and inward multilateral resistance terms and enter the model as exporter and importer time fixed effects with $e^{\beta_{it}} = \kappa_{it} \, \Pi_{it}^{\sigma-1}$ and $e^{\gamma_{jt}} = \theta_{jt} \, \mathrm{P}_{jt}^{\sigma-1}$. The error term is captured by η_{ijt}.

The presented panel data structural model is most useful in the context of an evaluation of the effects of the SD for two main reasons. First, the structural components of the model represented by the set of fixed effects, account for all kinds of time-varying exporter- and importer-country-specific and time-invariant bilateral trade barriers in specific services sectors. This not only avoids biased estimates due to an "omitted variable bias" but is also of advantage to an analysis of trade in services for which reliable data on trade barriers are hardly available and for which the measurement of trade costs has proven to be specifically complex and demanding. Moreover, the fixed effects approach consistently controls for "multilateral resistances". The latter capture relative trade costs of a country compared to all other countries and thereby account for trade diversion and income effects: A change in relative trade costs due to EU membership or the implementation of the SD results in price and income changes, which in turn affect bilateral trade flows causing trade creation and trade diversion effects.

To calculate and identify the SD reform effect on services trade, a set of explanatory variables has been included to measure existing trade barriers comprehensively. Most importantly, the impact of the SD must be separated from EU or EURO membership effects as well as from effects accruing to other regional trade agreements (RTA). Additionally, we introduce an indicator variable B_{ij} to distinguish international trade ($i \neq j$) from intranational (domestic) trade ($i = j$). By including domestic trade flows and multiplying the border dummy with all other control variables, changes in cross-border trade are estimated relative to the development of nearly frictionless domestic trade (Yotov, 2012; Bergstrand et al., 2015; Larch et al., 2019). Thus, for example, EU membership or SD reform effects should lower relative trade costs of cross-border services trade within the EU, making it an attractive alternative to purely domestic trade.

The estimated model may then be summarised by the following equation:

$$s_{ijkt} = exp\left(\sum_{l=1995}^{2018} \alpha_{1,l}\ B_{ij}\ t_l + \sum_{l=1995}^{2018} \alpha_{2,l}\ B_{ij}\ log(dist_{ij})\ t_l + \alpha_3 B_{ij}\ RTA_{ijt} + \alpha_4 B_{ij}\ EURO_{ijt} + \sum_{l=1995}^{2018} \alpha_{5,l}\ B_{ij}\ EU_{ijt}\ t_l + \sum_{l=2006}^{2018} \alpha_{6,l}\ B_{ij}\ EU_{ijt}\ SD_k\ t_l + \mu_{ijk} + \beta_{ikt} + \gamma_{jkt}\right) + \eta_{ijkt} \quad (5.2)$$

The last terms in Equation (5.2), β_{ikt} and γ_{jkt} are the industry-specific inward and outward multilateral resistance terms which enter the model as industry-exporter and industry-importer time fixed effects and μ_{ijk} refers to industry-specific bilateral fixed effects capturing time-invariant bilateral trade frictions. These are directly taken from Equation (5.1). Again, the error term is captured by η_{ijt}.

The indicator variable B_{ij} takes a value of one for international cross-border trade flows, it is zero for domestic trade. t_l represent time dummies which take on a value of one whenever year $t = l$. Interacted with the border dummy in the first term of Equation (5.2), $B_{ij}t_l$ – taking account of all other control variables – captures the overall change in services cross-border trade in each year from 1996 to 2018 that is not subject to any free trade agreement beyond the multilateral WTO regulation (GATS). The specified model also accounts for the changing impact of the geographical distance of trading partners. More distant partners are likely to have higher trade costs. However, interacted with the time dummies t_l the estimated parameters reveal the change in trade costs over time. Globalisation trends and technical progress – especially the digital revolution – are very likely to have reduced the cost of distance also in the services sector. The model further controls for joint membership in regional trade agreements (RTA_{ijt}), the Eurozone ($EURO_{ijt}$) and the EU (EU_{ijt}). The respective control variables take a value of one in the case of joint membership of the respective trading partners, and a value of zero otherwise. Both, the $EURO_{ijt}$ as well as EU_{ijt} capture the various EU and Eurozone enlargement waves. Note that the RTA_{ijt}, the $EURO_{ijt}$ and the EU_{ijt} variables equal zero for domestic trade. Furthermore, following Mayer et al. (2019), the RTA_{ijt} variable is set to zero for all countries once EU membership replaced a Regional Trade Agreement.

The SD reform impact is identified by an interaction term of the EU membership variable, time dummies for the treatment period chosen (2006 to 2018) and the SD dummy which takes on a value of one for all sectors k included in the Services Directive ("treated sectors"). Parameter values $\alpha_{6,l}$ reveal the intra-EU trade effect of the SD in services sectors included in the SD after the introduction of the SD in the year 2006 ("treated sectors") relative to a scenario of a non-existent SD in the same intra-EU-specific trade flow in the same sector and period. Formally this can be stated as:

$$s_{ijkt}^{SD_k=1} - s_{ijkt}^{SD_k=0} = exp\left(\sum_{l=2006}^{2018} \alpha_{6,l}\ B_{ij}\ EU_{ijt}\ SD_k\ t_l\right) \tag{5.3}$$

In a next step, we specify an alternative model in Equation (5.4) to account for heterogenous SD effects across importer countries. For this we include an indicator that signals differences in services sector reforms and the quality of SD implementation across EU countries. The literature reviewed in Chapter 3 has clearly revealed the widely differing country patterns in services reforms following SD implementation. It is therefore important to account for these differences. In the following specification we extend the model to include the variation in the SOLVIT indicator described in more detail in Chapter 6:

$$\begin{aligned} s_{ijkt} = exp\Bigg(&\sum_{l=1995}^{2018} \alpha_{1,l}\ B_{ij}\, t_l + \sum_{l=1995}^{2018} \alpha_{2,l}\, B_{ij}\ log\left(dist_{ij}\right) t_l + \alpha_3 B_{ij}\, RTA_{ijt} + \alpha_4 B_{ij}\, EURO_{ijt} \\ &+ \sum_{l=1995}^{2018} \alpha_{5,l}\ B_{ij}\ EU_{ijt}\ t_l + \alpha_6\, B_{ij}\, EU_{ijt}\, SD_k P_t + \sum_{l=2}^{4} \alpha_{7,l}\ B_{ij}\ EU_{ijt}\ SD_k P_t\ SOLVIT_{jtl} + \mu_{ijk} + \beta_{ikt} + \gamma_{jkt} \Bigg) \\ &+ \eta_{ijkt} \end{aligned} \tag{5.4}$$

Specifically, an additional interaction term of EU membership with the SD dummy and the SOLVIT indicator is introduced. It allows to identify heterogeneous effects of the SD due to differences in a country's compliance with the rules of the SD. $SOLVIT_{jtl}$ classifies different reform groups from weak reformers to strong reformers along the quartiles of the SOVLIT indicator with the weakest reformers in the quartile $l = 1$ as the reference group. This formulation is robust to measurement errors and erratic variations as shown by Wansbeek and Meijer (2001). Finally, P_t is a dummy variable indicating if year t falls into the treatment period, i. e., the years in which the SD was effective.

The empirical model given in Equation (5.4) takes account of an indicator signalling the varying progress in and quality of SD implementation. This forms the basis to identifying both the impact of the Services Directive up to 2018, but also the untapped potentials due to incomplete implementation of the SD so far. For this purpose, the estimated bilateral and domestic trade flows of actual implementation in the baseline are compared with two counterfactual scenarios. First, realised trade and income effects are calculated based on a scenario of "no policy

change", i. e., a situation in which the SD had never been implemented in any of the EU countries. In a further step, trade and income effects of a scenario which assumes best implementation of the SD as represented by the SOLVIT indicator of the best reforming group of countries, is compared to the baseline scenario of the actual implementation for all countries and sectors covered by the SD. This scenario provides information on the unexploited potential for intra-EU trade in services and real income in the EU Member States due to implementation deficits.

Furthermore, based on the estimated parameters of the model the analysis takes account of general equilibrium effects of the SD implementation (second round effects) stemming from changes in multilateral resistances induced by changes in relative trade costs (first round effects). A change in relative trade costs and the multilateral resistances due to SD implementation among European Member States might cause trade diversion from third countries. More, importantly, SD implementation leads to trade creation with increased intra-EU trade in the covered services sectors and subsequently to changes in the value of gross production, which in turn will affect bilateral trade. Only by including general equilibrium trade diversion effects as well as trade creation effects one arrives at an unbiased estimation result of the effects of trade policy measures (Allen et al., 2019; Oberhofer and Pfaffermayr, 2021). Formally, these general equilibrium effects are captured by the changes in the multilateral resistance terms of the structural gravity model. We apply the approach suggested in Yotov et al. (2016), which assumes constant industry shares in total production and thus immobile production factors across industries.

The estimation of welfare effects of SD implementation is based on Costinot and Rodríguez-Clare (2014). In this framework welfare gains from any trade policy change are induced by a substitution of relatively more expensive domestic production by less expensive imports generating gains in real income. The magnitude of this effect crucially depends on the elasticity of substitution for different industries.

6. Data sources and first descriptive evidence on the heterogeneity of the Services Directive implementation process based on SOLVIT

The availability of bilateral foreign trade data for services remains limited, especially at the disaggregated level of individual services industries. The need for data on domestic trade flows further limits the choice of databases. For this reason, most empirical foreign trade analyses based on structural gravity models rely on international input-output databases (WIOD or OECD TiVA). These databases include domestic and bilateral cross-border trade data at the industry level. In this study we use the OECD Trade in Value Added (TiVA) database. In its most recent release on November 17, 2021 the dataset covers 66 countries, 45 industries using the ISIC rev.4 classification, the years 1995 to 2018 and is based on national as well as inter-country input-output tables. The relatively long time series as well as the large number of included countries allow for a more precise estimation of the effects of trade policy measures such as the SD as compared to the WIOD or earlier versions of the OECD TiVA. Appendix A provides an overview of the countries covered in the estimation sample based on OECD TiVA.

The empirical difference-in-difference analysis will concentrate on bilateral trade in services and OECD TiVA provides disaggregated data for 23 services sectors. As suggested in Egger et al. (2020) the empirical analysis and estimation will be based on annual services trade flows. It should be noted that the OECD TiVA data only cover cross-border services provision. Other forms of supply, such as consumption abroad (as in tourism), supply through establishments abroad ("commercial presence") or the posting of natural persons, are not captured in these data. However, except for services supply via permanent establishments abroad, this delimitation in data collection and analysis is in line with the main thrust of the SD (Kern et al., 2021).

Data on geographical distance is sourced from Mayer and Zignago (2011) and information on bilateral Regional Free Trade Agreements (RTA) is taken from the Regional Trade Agreements Database by Mario Larch (e.g., Egger and Larch, 2008)[14]). Substitution elasticities to calculate real income effects in our model framework are drawn from Christen et al. (2019) and Felbermayr et al. (2021).

Most importantly, the study uses Single Market Scoreboard data on SOLVIT cases to reveal different qualities of SD implementation and existing barriers to services trade. The SOLVIT network for dealing with cross-border problems arising from the misapplication of internal market rules is one of the EU's most important internal market institutional instrument and mechanism. It simplifies the procedures for businesses (as well as for consumers) to complain about infringements in the EU internal market. The study selects complaints from businesses only. In general, complaints from businesses relate to problems due to the lack/ inadequate transposition of EU law, national rules that conflict with EU law, incorrect application of law, lack or absence of notification of draft national legislation on services, and clarifications. The number of cases reported to the SOLVIT network can thus be an important indicator of the quality of the transposition of EU directives. The SOLVIT data are available from 2002 onwards.

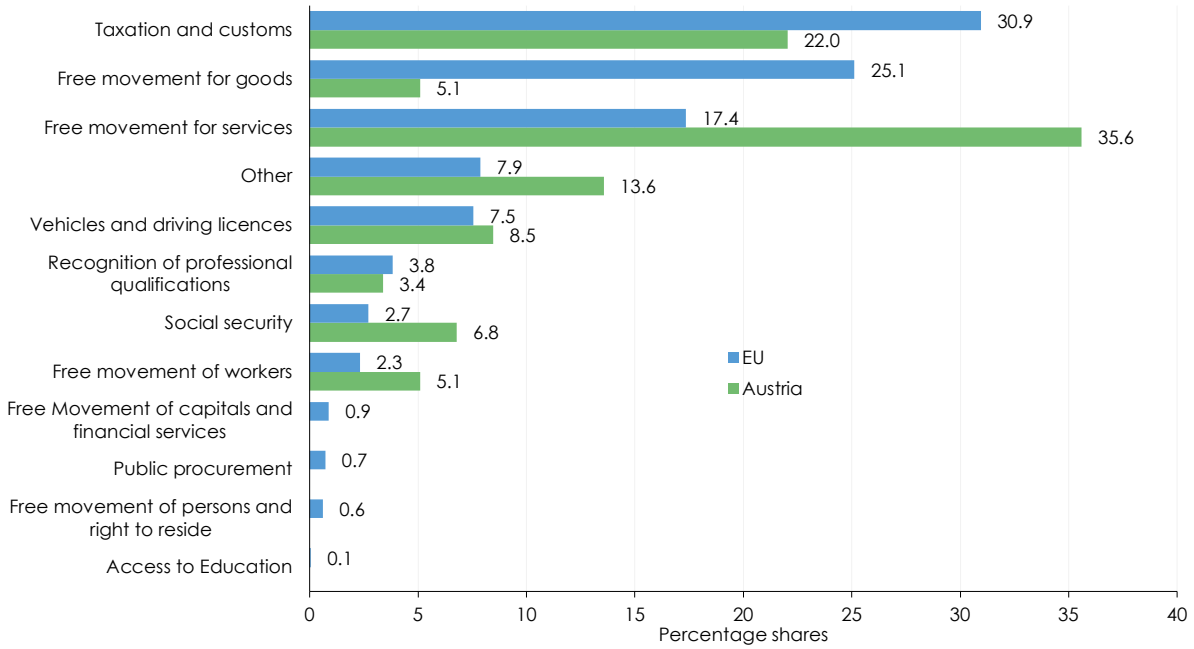
[14]) Access to the dataset is available at https://www.ewf.uni-bayreuth.de/en/research/RTA-data/index.html.

Box 6.1: The SOLVIT network

SOLVIT was introduced in 2002 to solve cross-border problems related to misapplications of internal market rules by public authorities. SOLVIT centres that handle complaints by citizens and businesses are established in each EU Member State as well as in Norway, Iceland and Liechtenstein and cooperate directly with each other. In practice, complaints are placed at the so-called home centre which verifies whether the problem involves the application of internal market rules, has a cross-border dimension, and is concerned with a dispute between a citizen or business and a national public administration. After review, the case is entered into the database and forwarded to the lead centre (centre of the Member State in which the problem occurred). Cases should be resolved within 10 weeks. The complainant can challenge a final solution by recourse to legal proceedings only.

Figure 6.1 reveals that 17.4% of the cases reported from the start of the SD in 2006 to 2018 concerned the free movement for services, 25.1% the free movement for goods and 30.9% taxes and duties (mainly problems related to VAT). Problem cases related to the free movement of workers and the recognition of professional qualifications accounted for minor shares of 2.3% and 3.8%, respectively. Austria shows a significantly above-average share of complaints from other Member States with respect to violations of the free movement for services compared to the EU average.

Figure 6.1: SOLVIT business cases by problem area, 2006 to 2018



Source: Single Market Scoreboard, WIFO calculations.

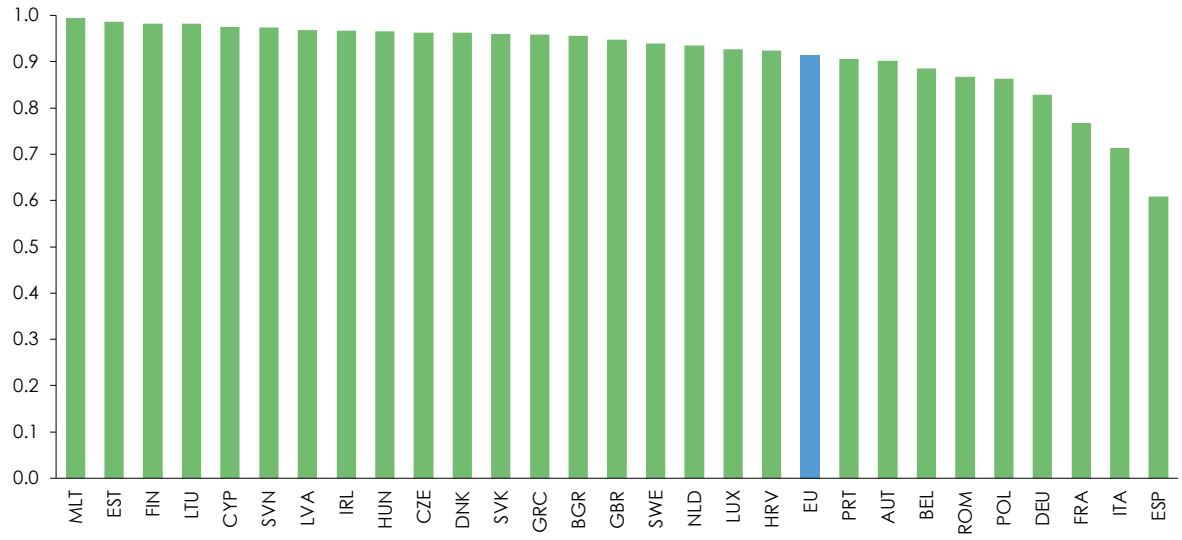
The indicator calculated from SOLVIT data focuses on cases received by the lead centre and is importer-specific (destination-country-specific). We exclude complaints not passing verification or transferred to other systems. Based on the number of complaints, the SOLVIT indicator is calculated by normalising the total number of complaints received by a country by the maximum number of cases received by any country and defined as follows:

$$Solvit_{jt} = 1 - \left(\frac{Solv_{jt}}{Solv_{max}} \right)$$

In this way, a higher value indicates a higher degree of compliance with Single Market legislation in terms of services. A value of 1 would indicate a situation of no SOLVIT complaints in the respective country and year.

Figure 6.2 presents the SOLVIT indicator by Member States averaged over the period of SD implementation in our dataset from 2006 to 2018. According to this indicator, cross-border problems in services trade occur most frequently in Spain, Italy, France and Germany. However, these are the largest EU countries and results for these countries might also be driven by a high correlation between the number of SOLVIT cases and the respective market size. The likelihood of cross-border problems increases with the market size of the importing country due to the higher number of trade relations. The econometric analysis presented in Chapter 5 accounts for these level differences. However, Austria clearly performs below average in an EU comparison and only occupies place 21 in the corresponding country ranking. This may be taken as a first signal of a relatively low quality of SD implementation in Austria over the period considered.

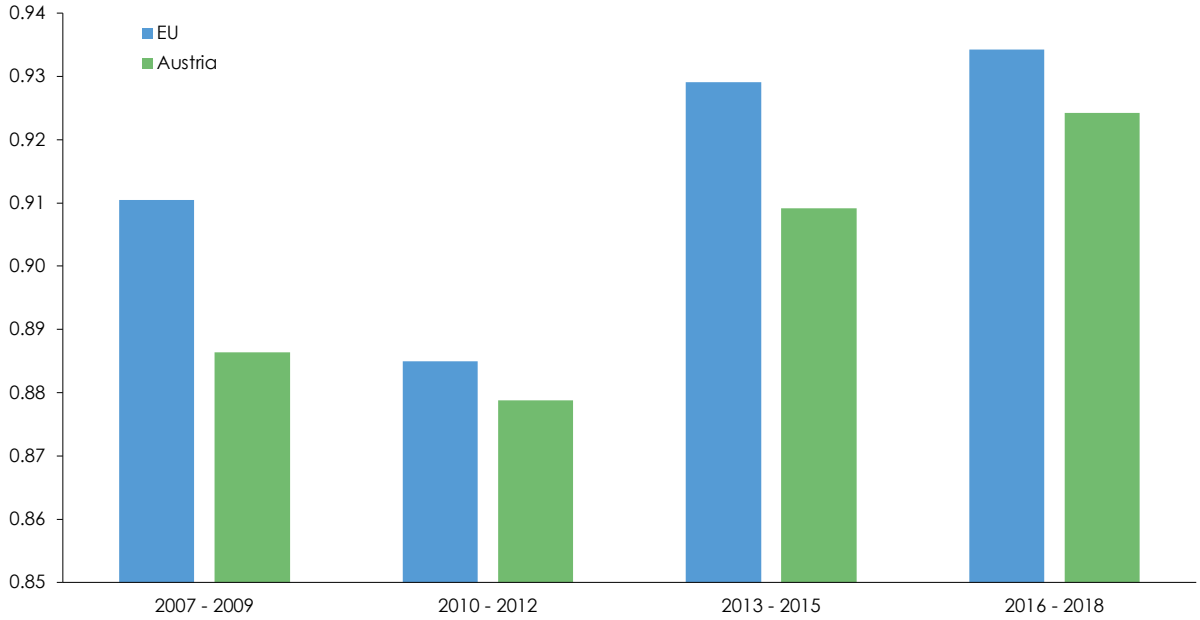
Figure 6.2: SOLVIT indicator by Member States, 2006-2018



Note: A higher value of the indicator signals a lower frequency of problem cases in SOLVIT.
Source: Single Market Scoreboard, SOLVIT business cases, WIFO calculations.

The caseload to be handled from year-to-year changes quite erratically for individual countries due to likely idiosyncratic reporting behaviour. There are also likely to be delays between the occurrence of problems encountered in cross-border trade and the reporting, handling and solving of problem cases within the SOVLIT framework. To minimise such kinds of data problems the yearly SOLVIT data are collapsed into 3-year averages for four different time periods. Figure 6.3 reveals the SOLVIT indicator's movement over these time intervals during the time period of SD implementation from 2007 to 2018 for Austria in comparison to the EU. Again, we find that the quality of implementation for Austria is below the EU average in all periods considered. For both, the EU and Austria we see a clear trend of improvement in the indicator from the period 2010 to 2012 onwards. This pattern represents well the review of findings in the analysis of trade barriers in services trade of Chapter 3 as well as the empirical findings in Dettmer (2015) and Kern et al. (2021): a highly uneven process of transposition and implementation of the SD across EU Member States as well as a slow and delayed reform process. Thus, even though the SD entered into force in 2006, the literature suggests that first significant effects of SD-induced reform steps could only be identified from 2010 onwards.

Figure 6.3: Development of the SOLVIT indicator in the EU and Austria



Note: A higher value of the indicator signals a lower frequency of problem cases in SOLVIT.
Source: Single Market Scoreboard, SOLVIT business cases, WIFO calculation.

7. Trade and welfare effects of the Services Directive

7.1 Estimation results

Table 7.1 reports estimation results of the empirical models outlined in Chapter 5 based on the bilateral OECD TiVA trade data at the sector level reviewed above. Since our main focus is on the effect of the SD, results for control variables are not reported. The table distinguishes between two model variants.

Table 7.1: Estimation results

	Model 1		Model 2	
	Parameter	Standard deviation	Parameter	Standard deviation
Border*EU*SD*2007	-0.0396	0.0345		
Border*EU*SD*2008	-0.0926***	0.0344		
Border*EU*SD*2009	-0.0617*	0.0369		
Border*EU*SD*2010	-0.0314	0.0427		
Border*EU*SD*2011	-0.0035	0.0409		
Border*EU*SD*2012	0.0359	0.0428		
Border*EU*SD*2013	0.0277	0.0427		
Border*EU*SD*2014	0.0657	0.0430		
Border*EU*SD*2015	0.1048**	0.0460		
Border*EU*SD*2016	0.1376***	0.0451		
Border*EU*SD*2017	0.1373***	0.0473		
Border*EU*SD*2018	0.1173**	0.0497		
Border*EU*SD			0.0263	0.0428
Border*EU*SD*P*SOLVIT 1 (medium-weak)			0.0992**	0.0460
Border*EU*SD*P*SOLVIT 2 (medium-strong)			0.1341**	0.0672
Border*EU*SD*P*SOLVIT 4 (strong)			0.1751**	0.0770
Observations	2,068,845		2,068,845	

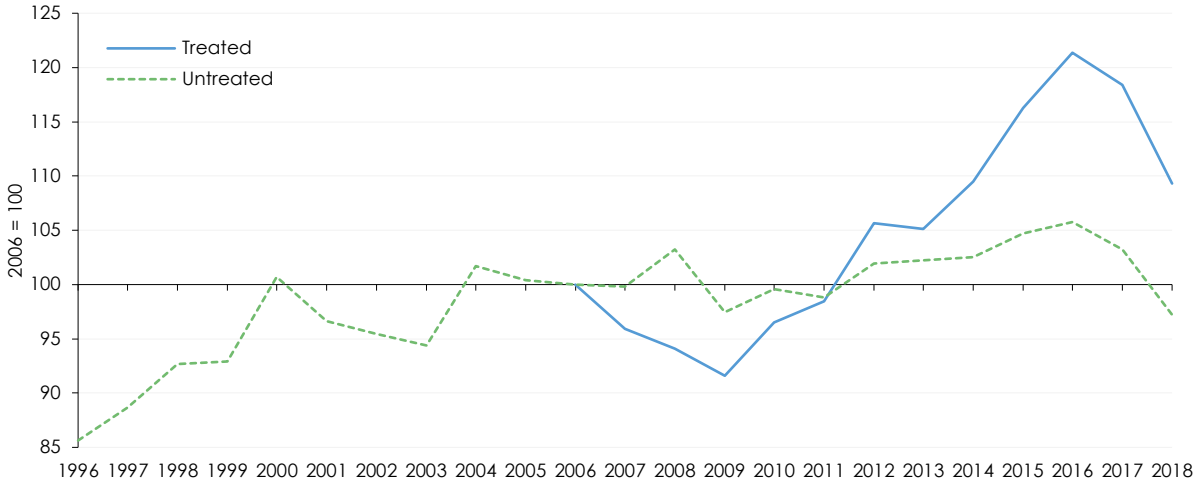
Notes: The gravity models are estimated using the "ppmlhdfe" package of the STATA econometrics software (Correia et al., 2020). *, ** and *** indicate statistical significance at the 10%-, 5%- and 1%-level, respectively. All control variables are included (compare Chapter 5, Equation (5.2) and Equation (5.4)). Model 2 specifies 2010 as the year of treatment. Standard errors are cluster by country pairs accounting for correlation over time and industries within each country pair.
Source: WIFO calculations.

The first column (Model 1) presents results from estimations of the empirical specification summarised in Equation (5.2). The SD effect is interacted with time dummies and thus reveals yearly SD effects. Two important findings emerge. First, we find negative and mostly insignificant coefficients before 2011. They turn positive afterwards and are statistically significant from 2015 onwards. This confirms findings of a very slow and delayed SD reform process and supports the choice of the treatment year after the first implementation phase from 2006 to 2009 as in Kern et al. (2021). Furthermore, the results suggest that SD effects are not constant over time. This can best be seen in Figure 7.1. It visualises the resulting marginal effects for the treated group (blue line) and the control group (dashed green line). The varying distance of the two curves might be driven by the timing and by heterogenous impacts of services sector reforms across countries. Indeed, the more refined model specification which takes account of differences in the quality of SD implementation by including interaction terms of the SD variable with the SOLVIT indicator (Model 2) lends clear support to this hypothesis.

In Model 2 different "reform classes" reaching from weak reformers to strong reformers are defined using the quantiles of the SOLVIT indicator and are interacted with the SD variable (see

Equation (5.4) in Chapter 5). The base effect is not significant and reveals the impact of the SD in the case of very poor progress of reforms (SOVLIT=0). As we move from poor to best reformers in terms of SD implementation, the higher and the more significant are effects on exports in the sectors covered by the SD.

Figure 7.1: Marginal effects of treated versus untreated groups in comparison (Model 1)



Source: WIFO calculations.

The parameter estimates reported in Table 7.1 as well as the marginal effects plotted in Figure 7.1 capture direct trade effects of the SD and do not yet take any type of general equilibrium effects into account. These will be calculated and incorporated in the counterfactual analysis in the following subchapters.

7.2 Bilateral trade effects and potentials

Table 7.2 reports the aggregated bilateral trade effects for the two alternative scenarios considered in the analysis: a scenario of "no policy change" displaying realised impacts of the SD up to 2018 and a scenario of "best SD implementation". It summarises the effect for seven services industries covered by the SD and reveals trade effects between Austria and the other EU countries as well as indirect impacts on trade of Austria and the other EU countries with the rest of the world (ROW). The construction sector had to be excluded due to problems with the relevant trade data in the OECD TiVA database. The first four rows always present SD export effects while the next three rows display SD-induced changes in imports, respectively. The reported values are percentage changes in bilateral trade based on a comparison of the counterfactual predictions with the baseline estimates. The bottom of Table 7.2 presents total effects calculated as weighted averages of all bilateral trade effects of each industry in each single Member State. The weights are based on trade flows from the counterfactual situation in the first scenario of "no policy change" and on baseline trade flows in the second scenario of "best

SD implementation"[15]). Finally, realised trade effects of the first scenario are presented as the (weighted) average of the yearly effects over the period 2010 to 2018 (i. e., the years the SD has been effective) as well as the trade impact in year 2018, which is the latest year observed in our data sample.

There is one important point that should be born in mind when interpreting the estimation results. Due to specific characteristics, services sector activities very often require personal contact, trust and deep knowledge on local preferences of customers. These characteristics very often make foreign direct investments (FDI) the preferred mode of delivery which theoretically may substitute or complement cross-border trade (Christen and Francois, 2017; Kern et al., 2021). The analysis in this study can only observe changes in cross-border trade (mode 1) which to some extend might be substituted by FDI. In such instances, this may even lead to negative trade or real income effects. In any case, resulting effects have to be strictly interpreted as effects of cross-border trade only, not taking into account SD-induced FDI flows.

Turning to the results for the first scenario, we first find an average impact of the SD of 6.19% for Austrian intra-EU exports over the period 2010 to 2018. In 2018 the SD increased Austrian exports to the Single Market by 7.92%. The SD effect on intra-EU exports was positive in in all industries covered by the SD. While the impact is quite homogeneous across SD services sectors, in general, the highest growth impulses 2010 to 2018 can be found for business support and administrative services (7.34%) as well as for IT and information services (7.02%). The smallest effects are revealed for the sectors accommodation and food as well as real estate. This ranking of the results also holds for 2018.

A comparison of the average SD effect over 2010 to 2018 with effects in the year 2018 suggests that SD-induced intra-EU trade effects have increased over time in most sectors. This is most pronounced for IT and information services as well as business support and administrative services. It is less pronounced for the real estate sector. This acceleration of effects over time is in accordance with observations that the SD took time to be implemented and that the SD effect emerged only gradually becoming significant well beyond the implementation date. Contrasting the findings for Austria with the SD effects on intra-EU trade at the EU level ("EU-EU" exports), a very similar overall picture emerges. However, a higher SD effect on Austrian exports can be discerned for IT and information services, while the effects on Austrian intra-EU trade are lower for real estate services.

In theory, any deepening of the EU integration process produces trade creation enhancing intra-EU trade at the cost of trade with third non-EU countries. As to the impacts of the SD, the results in Table 7.2 confirm this assertion for the EU in total, but not for Austrian services trade over the period 2010 to 2018. The Austrian results reveal a positive, albeit small effect on exports to extra-EU countries in the rest of the world (ROW) in all SD services sectors (except for supporting business and administrative activities). To some extent, this might be related to slow progress of reforms in Austria's most important EU trading partners so far, keeping substitution effects low.

[15]) We also use observed trade flows to calculate world production. For econometric estimation and for solving the structural gravity model all trade flows are normalised by world production.

Table 7.2: General equilibrium trade effects in different counterfactual scenarios

ISIC	Sector	Country pairs	Impact of SD "No policy change" 2010-2018	Impact of SD "No policy change" 2018	Potentials "Best SD implementation"
			Percentage changes		
D45T47	Wholesale and retail trade	AUT-EU	5.99	7.72	9.71
		EU-EU	5.98	6.93	10.03
		AUT-ROW	0.26	1.01	-2.08
		EU-ROW	-0.58	-0.67	-0.73
		EU-AUT	6.38	8.15	7.61
		ROW-AUT	-2.04	-3.49	0.54
		ROW-EU	-0.85	-0.90	-0.62
D55T56	Accommodation and food service activities	AUT-EU	4.80	6.51	8.18
		EU-EU	4.54	5.14	8.64
		AUT-ROW	0.90	1.79	-1.40
		EU-ROW	-0.35	-0.44	-0.34
		EU-AUT	6.52	7.97	7.93
		ROW-AUT	-1.37	-3.28	0.69
		ROW-EU	-1.21	-1.56	-2.45
D58T60	Publishing, audio-visual and broadcasting activities	AUT-EU	6.57	7.97	9.96
		EU-EU	6.80	7.88	8.13
		AUT-ROW	0.13	0.56	-1.98
		EU-ROW	-0.95	-1.04	-0.88
		EU-AUT	5.81	7.13	6.91
		ROW-AUT	-1.99	-3.24	-0.11
		ROW-EU	-1.06	-1.17	-0.41
D62T63	IT and other information services	AUT-EU	7.02	8.90	9.57
		EU-EU	5.56	6.12	7.15
		AUT-ROW	1.71	2.95	-0.01
		EU-ROW	-0.54	-0.67	-0.84
		EU-AUT	6.07	6.36	5.73
		ROW-AUT	-3.54	-5.15	-1.43
		ROW-EU	-1.02	-1.30	-2.38
D68	Real estate activities	AUT-EU	4.77	5.79	8.64
		EU-EU	5.93	6.64	10.83
		AUT-ROW	0.18	0.53	-2.07
		EU-ROW	0.09	0.10	0.22
		EU-AUT	8.83	11.49	11.72
		ROW-AUT	-0.02	-0.86	3.67
		ROW-EU	-0.76	-1.07	-2.02
D69T75	Professional, scientific and technical activities	AUT-EU	6.81	8.38	9.90
		EU-EU	6.66	7.66	8.94
		AUT-ROW	0.12	0.72	-1.80
		EU-ROW	-0.59	-0.71	-0.58
		EU-AUT	7.59	8.73	7.74
		ROW-AUT	-1.67	-2.78	0.57
		ROW-EU	-1.09	-1.45	-0.71
D77T82	Business support and administrative activities	AUT-EU	7.34	9.24	9.20
		EU-EU	7.08	7.93	9.13
		AUT-ROW	-0.24	0.60	-1.47
		EU-ROW	-0.67	-0.73	-0.55
		EU-AUT	8.23	9.91	8.60
		ROW-AUT	-0.12	-1.39	1.21
		ROW-EU	-1.18	-1.35	-0.25
	Total	AUT-EU	6.19	7.92	9.52
		EU-EU	6.13	7.00	9.08
		AUT-ROW	0.38	1.16	-1.69
		EU-ROW	-0.57	-0.67	-0.65
		EU-AUT	6.69	8.08	7.47
		ROW-AUT	-2.02	-3.54	0.23
		ROW-EU	-1.00	-1.18	-0.90
	Subtotal (excl. D68	AUT-EU	6.24	8.01	9.55
		EU-EU	6.14	7.01	9.05
		AUT-ROW	0.38	1.19	-1.68
		EU-ROW	-0.59	-0.69	-0.67
		EU-AUT	6.65	8.02	7.40
		ROW-AUT	-2.06	-3.57	0.18
		ROW-EU	-1.00	-1.18	-0.88

Note: EU excluding Austria.
Source: WIFO calculations.

The empirical gravity model specified in this study also allows to derive SD effects for Austrian and total EU imports. These are displayed in the last three rows for each of the services sectors. If a country's own barrier reduction is higher than the dismantling of barriers by its trading partners this could lead to a larger SD effect on imports than on exports of that country. For Austria realised SD effects are very similar on the export and the import side for most sectors. It is only the IT and information services sector for which we find a perceptibly higher impact on exports than on imports. This difference increased over time as can be seen from a comparison of 2018 results with the results for the total period from 2010 to 2018[16]). Furthermore, the results indicate trade diverting patterns on the import side. Austrian services imports from the ROW are substituted by imports from other EU member countries following SD implementation. However, the effects are small relative to the size of positive intra-EU trade effects. Again, this is most pronounced in the IT and information services sector.

The results for the second counterfactual scenario of "best SD implementation" are displayed in the last column of Table 7.2 The counterfactual sets the SOLVIT indicator for all EU countries to the level of the group of best reformers in the sample (group 4) and compares it to the baseline scenario that accounts for the implementation of the SD. Thus, it reflects possible trade potentials in a situation of "best implementation" of SD targets. Best compliance with the rules of the SD in all EU members would boost services exports in the internal market by another 9.52% and 9.08% for Austria and for the EU, respectively. Again, the resulting trade potentials are very similar across the services sectors within the scope of the SD. Throughout, the calculated potentials are higher than the impacts so far realised. Export potentials tend to be higher than potential effects on imports except for the real estate sector.

Improving on services sector reforms and SD implementation would redirect some exports with third countries towards intra-EU trade for Austria as well as for total EU trade (see the "AT-ROW" and "EU-ROW" rows in Table 7.2, "best SD implementation"). However, trade diversion effects on exports would be quite moderate and would be more than offset by positive effects of intra-EU export potentials. Furthermore, realising the intra-EU trade potentials would come at some costs for third countries in the ROW ("ROW-EU" trade). These are moderate as trade at the EU level is concerned. In the case of Austria, best implementation of the SD would initiate reforms that would also be to the benefit of third countries' exports. This holds true for all sectors covered by the SD, except for the IT and information sector and the publishing sector. The low trade diversion effects may be taken as an indication that deeper and stronger services sector reforms in the EU do not come at high costs for the ROW.

Table 7.3 presents results of SD effects and potentials on exports for individual Member States. The total export effects shown accounts for all trade diverting and trade creating effects of extra-EU and intra-EU export flows. The displayed ranks represent the ranking of countries in descending order, starting with the country with the largest SD impact on total exports. As to realised SD export effects, most accession countries plus Finland and Denmark reveal the largest total SD effects on exports. Austria ranks well in the middle among the EU countries. The

[16]) Note, that the impact on the trade balance will depend on the initial level of exports and imports. Hence, the larger percentage impact on imports than exports does not necessarily imply a deterioration of the trade balance.

lowest SD effects are found for Spain, Italy, Romania, but also for Germany and France. These countries combine a comparatively smaller effect on intra-EU exports with larger trade diverting effects of exports to the ROW. Heterogenous results of SD impacts across the EU members reflect differences in the sectoral composition as well as the geographical structure of exports combined with differing reform efforts in destination countries. Indeed, as we compare the impact of exports by country with the SOLVIT indicator averaged over trade partners for each EU Member State in Figure 7.2 we see that countries with the lowest SD effects concentrate on EU export markets with lower quality of SD implementation.

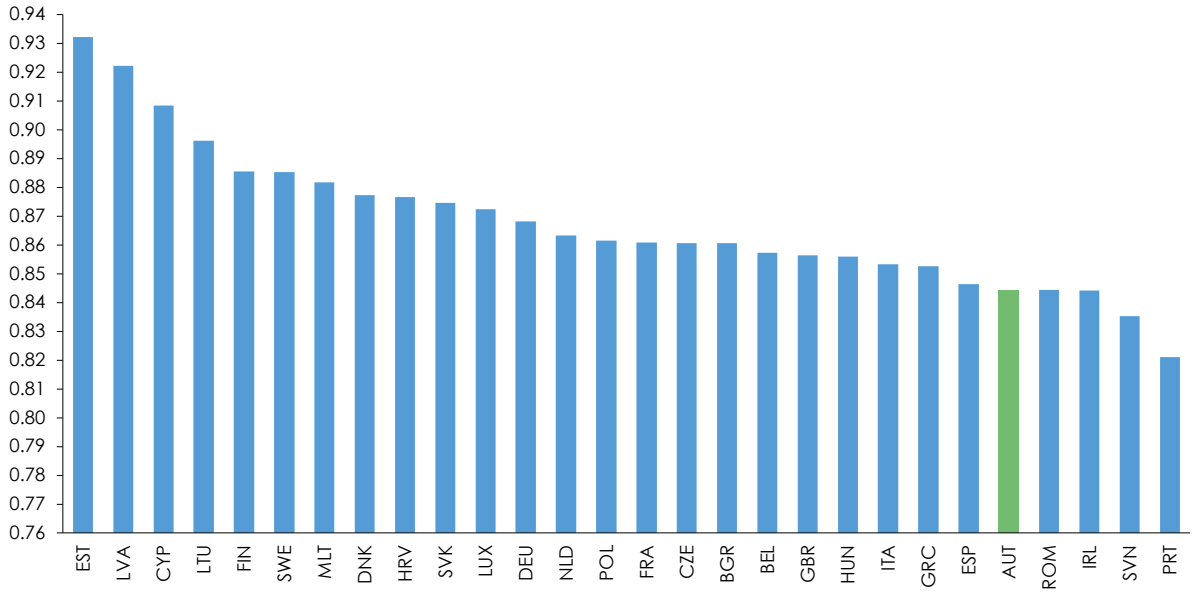
Turning to the results for trade potentials by EU country in Table 7.3, we find that Austria ranks 6th among EU countries and is among countries which have the most to gain from deeper reforms and best compliance with SD rules in its most important EU trading partners. The picture that emerges across all countries is more or less, one of a reversed ranking compared to the export growth effects of the SD already achieved. Countries with yet lower realised gains in trade in most cases have higher potential gains to be realised if reforms are deepened and progressed.

Table 7.3: General equilibrium export effects in different counterfactual scenarios by Member States

	Impact of SD "No policy change" 2010-2018				Potentials "Best SD implementation"			
	Extra-EU	Intra-EU	Total	Total	Extra-EU	Intra-EU	Total	Total
	Percentage changes			Rank	Percentage changes			Rank
Austria	0.4	6.2	4.5	16	-1.7	9.5	6.4	6
Belgium	-0.5	6.3	4.3	18	-1.7	8.5	5.5	7
Bulgaria	1.1	8.2	5.7	10	-3.6	6.5	3.3	20
Cyprus	0.7	9.4	4.6	15	-2.3	5.3	1.2	28
Czech Republic	2.0	8.8	7.3	6	-2.6	7.5	5.4	9
Germany	-1.4	5.8	2.6	26	1.8	11.3	7.3	3
Denmark	1.4	8.9	5.9	9	-3.3	6.1	2.4	25
Spain	-1.9	3.9	1.9	28	-0.4	10.1	6.5	5
Estonia	0.9	11.0	7.7	2	-2.4	3.8	1.9	27
Finland	3.4	11.4	7.6	3	-2.5	6.1	2.3	26
France	-1.6	5.1	2.6	25	1.3	11.8	8.2	2
United Kingdom	-0.1	6.6	3.4	24	-1.5	8.1	3.6	19
Greece	0.6	7.2	4.3	17	-2.6	7.3	3.1	22
Croatia	-1.3	6.1	4.2	20	-3.6	6.2	3.9	17
Hungary	0.8	7.6	5.7	11	-3.2	7.3	4.5	13
Ireland	0.8	6.2	4.0	21	-2.8	6.3	2.7	24
Italy	-1.3	4.9	2.0	27	0.7	11.9	6.9	4
Lithuania	1.7	10.5	7.5	4	-1.8	6.5	3.9	16
Luxembourg	-0.8	6.4	5.3	12	-4.8	4.5	3.0	23
Latvia	1.2	11.1	7.7	1	-0.7	6.2	4.1	14
Malta	2.1	9.9	7.5	5	-3.3	6.0	3.3	21
Netherlands	0.0	6.9	4.2	19	-1.6	7.8	4.5	12
Poland	-0.3	6.3	4.6	14	-2.3	7.8	5.4	8
Portugal	-0.2	5.7	3.9	22	-2.9	9.2	5.4	10
Romania	-0.9	5.4	3.6	23	0.6	11.5	8.6	1
Slovakia	0.9	8.1	6.6	8	-3.0	6.5	4.6	11
Slovenia	2.3	8.7	7.1	7	-4.7	6.0	3.8	18
Sweden	0.3	8.4	4.7	13	-0.7	7.7	4.1	15

Source: WIFO calculations.

Figure 7.2: SOLVIT indicator (2010-2018) in EU trading partners by Member States



Note: A higher value of the indicator signals a lower frequency of problem cases in SOLVIT.
Source: Single Market Scoreboard, SOLVIT business cases, WIFO calculation.

7.3 Domestic trade and real income effects

Table 7.4 and Table 7.5 present the effects of the SD on domestic trade and real incomes for the two different counterfactual scenarios of "no policy change" and one of "best SD implementation". The real income effects reflect a reduction of domestic trade flows that translate into welfare changes as demonstrated by Costinot and Rodríguez-Clare (2014). The tables report long-run domestic trade and welfare effects across industries and separately for Austria and the EU. The welfare changes depend on the elasticity of substitution in each of the services sectors besides the change in domestic trade flows.

Specifically, in the applied model framework, the change in domestic and cross-border trade flows results from the relative price decrease for traded goods caused by services sector reforms and liberalisations following the SD implementation. As a result of the reduction of cross-border barriers exports and imports become less costly for EU members and will decrease relative prices for traded goods. Consequently, more will be exported at the cost of internal domestic trade and imports will substitute less efficient, more expensive domestic provision of services. This negative impact on domestic trade as services trade is liberalised by SD implementation is confirmed by the results of Table 7.4. This in turn will depress product prices and will have a positive real income effect. In our model framework changes in welfare can therefore be interpreted as changes in real income.

Austrian real income effects of SD reforms from 2010 to 2018 range from 0.11% in the sector of business support and administrative services as well as the real estate sector at the lower end and to about 0.6% in the wholesale and retail sector and the publishing and audio-visual

services sector. As has already been found for the SD effect on trade flows, a comparison of the average SD income effects over the period 2010 to 2018 with the effects from the last year of observation in the sample 2018, suggests an increase in SD effects on income in all industries. The EU level impact on real incomes represents the weighted averages of income effects in each single Member State. The EU level impact on real incomes is much smaller in most services sectors than the change in income in Austria, except for real estate activities. The relevant effects for the EU range from 0.07% for business support and administrative activities to 0.25% for wholesale and retail trade services. The weighted EU average is mainly depressed by the low effects in some of the larger EU countries, such as Spain, Italy or Germany. Comparing unweighted EU means of real income changes induced by the SD from 2010 to 2018 we find that the simple average of SD effects over EU countries always outperforms SD income effects in Austria. This signals that there are larger potentials in Austria than for most other countries.

Table 7.4: Domestic trade effects in different counterfactual scenarios

ISIC	Sector	Country	Impact of SD "No policy change"		Potentials "Best SD implementation"
			2010-2018	2018	
			Percentage changes		
45T47	Wholesale and retail trade	AUT	-1.66	-2.51	-1.59
		EU	-0.73	-0.88	-1.59
55T56	Accommodation and food service activities	AUT	-1.07	-1.61	-0.87
		EU	-0.51	-0.66	-1.18
58T60	Publishing, audio-visual and broadcasting activities	AUT	-1.96	-2.91	-2.20
		EU	-0.69	-0.89	-1.43
62T63	IT and other information services	AUT	-1.66	-2.45	-1.75
		EU	-0.73	-0.92	-1.57
68	Real estate activities	AUT	-0.14	-0.43	1.47
		EU	-0.26	-0.37	-0.74
69T75	Professional, scientific and technical activities	AUT	-1.38	-2.06	-1.25
		EU	-0.45	-0.57	-1.06
77T82	Business support and administrative activities	AUT	-0.53	-0.93	-0.37
		EU	-0.35	-0.45	-1.02
Total	Total	AUT	-1.05	-1.63	-0.54
		EU	-0.50	-0.63	-1.18

Note: EU excluding Austria.
Source: WIFO calculations.

Accordingly, the potential impact of the SD in a scenario of best compliance, real income in Austria always outperforms average effects at the EU level. They range from 0.08% for business supportive services to 0.67% in the publishing and audio-visual sector. The publishing sector as well as wholesale and retail trade are the sectors covered by the SD with the greatest untapped potentials in Austria. This also holds for the EU. Overall, the analysis of untapped income potentials reveals that best implementation of the SD would bring additional income gains in the amount of the effects already realised over the period 2010 to 2018.

Table 7.5: General equilibrium real income effects in different counterfactual scenarios

ISIC	Sector	Country	Impact of SD "No policy change" 2010-2018	Impact of SD "No policy change" 2018	Potentials "Best SD implementation"
			Percentage changes		
D45T47	Wholesale and retail trade	AUT	0.57	0.85	0.54
		EU (weighted)	0.25	0.30	0.54
		EU (unweighted)	0.79	0.89	0.27
D55T56	Accommodation and food service activities	AUT	0.29	0.43	0.23
		EU (weighted)	0.14	0.18	0.32
		EU (unweighted)	0.55	0.66	0.18
D58T60	Publishing, audio-visual and broadcasting activities	AUT	0.60	0.89	0.67
		EU (weighted)	0.21	0.27	0.44
		EU (unweighted)	0.72	0.84	0.37
D62T63	IT and other information services	AUT	0.36	0.54	0.38
		EU (weighted)	0.16	0.20	0.34
		EU (unweighted)	0.43	0.49	0.22
D68	Real estate activities	AUT	0.11	0.33	-1.11
		EU (weighted)	0.21	0.30	0.58
		EU (unweighted)	0.60	0.70	-0.66
D69T75	Professional, scientific and technical activities	AUT	0.34	0.51	0.31
		EU (weighted)	0.11	0.14	0.26
		EU (unweighted)	0.43	0.49	0.13
D77T82	Business support and administrative activities	AUT	0.11	0.20	0.08
		EU (weighted)	0.07	0.10	0.22
		EU (unweighted)	0.36	0.42	0.13
	Total	AUT	0.32	0.53	0.16
		EU (weighted)	0.18	0.24	0.41
		EU (unweighted)	0.55	0.64	0.10
	Subtotal (excl. D68)	AUT	0.40	0.60	0.36
		EU (weighted)	0.17	0.22	0.37
		EU (unweighted)	0.54	0.63	0.22

Note: EU excluding Austria.
Source: WIFO calculations.

A counterintuitive negative real income potential in a situation of best compliance is found for the real estate sector and has to be taken as an outlier. For several reasons the model applied is too restrictive for this sector. First, the data reveal very low cross-border trade flows for real estate activities. In addition, as indicated before the analysis in this study does not account for possible impacts of SD-induced reforms on FDI which seems to be the dominant form of cross-border delivery of this kind of activity. For this reason, Table 7.5 displays subtotals reflecting averages over industries excluding the real estate sector. The total real income potential for Austria – excluding real estate activities – amounts to 0.36% (compared to 0.16% including real estate), which is also the amount by which real income could potentially increase in the total EU.

Compared to the previous literature results of this study are in the range of the findings of the European Commission studies by Monteagudo et al. (2012) and their repeated exercise in the study of the European Commission (2015a). In accordance with the analysis in this study and in contrast to all other studies, the effect of the SD is assessed based on actual implementation and barrier reductions. However, comparisons with this study are limited due to the very different methodological approaches. The resulting SD trade effects in the present study are small compared to Kern et al. (2021), the only ex-post study covering years after the end of the official implementation phase set by the SD in 2009. They find a SD trade effect for the EU in the amount of 29% to 67% and the results for Austria turned out insignificant. While the general

methodological approach in Kern et al. (2021) comes close to the empirical model applied in this study, discrepancies in the resulting trade effects are due to the different strategy to identify the SD effect. For this reason, the results in the Kern et al. (2021) study have to be interpreted as SD effects including EU integration effects. In contrast, the SD effect in the present study separates the SD effect from the general EU integration effect. The effects are correspondingly lower. In addition, the trade effects of EU integration in Kern et al. (2021) are likely to be upward biased as identification relies solely on EU enlargement effects. Since their data cover only the period from 2002 to 2014 the trade effects from EU integration are only based on the accession effects from enlargement rounds in 2004 and beyond. These effects are higher than effects from earlier EU enlargements such as the EU accession of Austria, Finland and Sweden in 1995. The reason for the lower effects for the latter is that these three countries were already highly integrated with EU countries before their accession. This results in smaller EU integration parameter estimates than suggested by the analysis in Kern et al. (2021).

8. Summary and conclusions

European services sector integration and liberalisation have proven to be difficult due to the multitude of administrative barriers, access restrictions and different regulatory approaches in the Member States. The most important reform step to date towards deepening the internal market for services was taken with the Services Directive (SD). It entered into force in June 2006 and was implemented – in legal terms - in most countries by 2010. Its goal was to advance the removal of existing obstacles to the free movement of services, the freedom of establishment of services providers (FDI) as well as to spur administrative simplification. While its scope is broad, the SD excludes some sensitive sectors as well as sectors for which there are separate Community actions or EU legislative acts. The sectors covered include business and professional services, business support and administrative services, information services, construction, retail and wholesale trade, real estate, tourist accommodation, hotels and restaurants as well as private education and health care. Excluded are financial services, telecommunications, transport as well as public cultural, health or educational activities.

Upon the SD's 15th anniversary in 2021, this study takes stock of the progress of reforms as well as the trade and welfare gains so far achieved and quantifies unexploited potential gains due to implementation deficits. This adds to still sparce empirical evidence based on ex-post analyses of the SD. Impacts on foreign direct investment flows in services are not part of the analysis.

The estimation results are based on a theory-consistent specification of the gravity model ("structural gravity model"). The model is specified for a large panel of bilateral and domestic trade flows at the industry and country level over the period 1995 to 2018. A difference-in-difference design is employed to identify the SD effect by a comparison of treated bilateral trade flows (intra-EU trade flows of services sectors included in the SD after the introduction of the SD in the year 2006) with untreated trade flows. The empirical model also takes account of heterogeneous qualities of SD implementation across Member States. It applies a novel country-specific indicator derived from business complaints regarding cross-border trade issues reported to the SOLVIT mechanism. The indicator selects complaints concerning the free movement of services.

In the following, the main findings are summarised under the subchapters of SD implementation and reform progress, realised SD trade and real income effects in the period 2010 to 2018 and potential trade and income effects from "best implementation" of the SD.

8.1 Key findings

8.1.1 SD implementation and reform progress

Services sectors covered by the SD account for about 45% of total value added and contribute most to value added growth in the EU and Austria: The SD does not include all services sectors, but its scope is still wide. In 2018 included sectors accounted for almost half of total value added in Austria and the EU. In almost all years since 1995 these services sectors also contributed more to overall value added growth than manufacturing sectors or other services sectors. Furthermore, the subgroup of services included in the SD accounted for 62% of total intra-EU services exports and well over half of Austrian exports to other EU members.

Highly uneven implementation and reform efforts across countries and sectors: Even though the SD applies equally to all included sectors and the transposition period was set uniformly, there is still considerable heterogeneity in its implementation as well as in the removal of barriers at the country and sector level. This is surprising given the European Commission's accompanying measures and detailed implementation programme including mutual evaluations and the obligations for an extensive screening of rules by the Member States.

Legal services, retail trade, travel agencies and architects remain the most regulated sectors: Detailed assessments of barriers at the sectoral level by the European Commission identified legal services as the most regulated, followed by retail trade, travel agencies and architects across the EU. However, these are not the activities with the highest reform effort. In terms of the number of barriers completely abolished travel agencies and tourist guides, hotels, construction and real estate rank highest.

Moderate services reform progress in Austria: Austria adopted the corresponding service law in 2011, two years after the transposition deadline set by the SD. Assessments of achievements in services barrier reductions in the reviewed literature identify Austria as a country with moderate services reform progress. This is confirmed by the SOLVIT indicator on cross-border barriers to services trade. According to this indicator, cross-border problems in services trade occur most frequently in Spain, Italy, France and Germany. However, Austria clearly underperforms as well. The Austrian share of complaints from other Member States in relation to violations of the free movement of services is clearly higher than in most other EU Member States. Austria ranks 21st in the corresponding country ranking.

Austria's services exports are strongly concentrated on partners with a low quality of SD implementation: While Austria itself is a country with moderate SD-induced reform progress, its exports are also concentrated on trading partners belonging to the group of weak reformers. In an ordering of countries according to the SOLVIT indicator averaged over all EU trading partners of each exporting country, Austria ranks 24th. This signals high untapped potential for Austria related to further barrier reductions in its main trading partners.

SD implementation improves over time but remains limited: According to the literature reviewed most reform steps were taken during the "official" SD implementation phase between 2006 and 2010, but reform efforts slowed down considerably and remained heterogeneous across countries thereafter. This conclusion in the literature relied solely on assessments of the changing number of trade-impeding services regulations in place not taking into account for the stringency and the trade-impeding impact of restrictions. The SOLVIT indicator on barriers to services trade applied in this study more directly relates to more relevant obstacles and impediments to cross-border business in the EU as services providers are likely to report only problem cases of high importance to the SOLVIT system. The development of the SOLVIT indicator confirms the pattern stated in the literature until 2012 but indicates improving compliance with SD rules by most Member States and Austria beyond that date.

8.1.2 Realised SD trade and welfare gains 2010 to 2018

Insights into the actual impact of the SD on trade and real income are gained by counterfactual analysis that compares the baseline results of the empirical gravity model - results that

account for the actual implementation of the SD - with the estimates of a "no policy change" counterfactual scenario, i. e., a situation in which the SD would never have been enacted. The analysis reveals the following main findings.

The SD raised Austrian exports and imports to other EU countries by 6.2% and 6.7% on average: General equilibrium trade results reveal that the volume of intra-EU exports of services was higher by 6.2% on average over the period 2010 to 2018 due to the SD as compared to the counterfactual situation of "no policy change". The impact on total Austrian exports, taking into account all indirect trade diverting and trade creating effects with non-EU countries amounted to 4.5% on average. With these results Austria ranks well in the middle among the EU countries. Overall, the resulting SD effects are very similar for Austrian exports and imports.

Positive trade effects for all services covered by the SD: The analysis finds positive trade effects for all services covered by the SD. The impact is quite homogeneous across SD services sectors. The wholesale and retail activities as well as professional, scientific and technical services contribute most to the overall export increase as they account for the largest shares in cross-border services trade. While the differences are small, the highest results for Austrian exports can be found for business support and administrative services (7.3%) as well as for IT and information services (7.0%). The smallest effects are revealed for real estate sector (4.8%). Construction activities had to be excluded from the analysis due to the low quality of the trade data for this sector.

Strongest impact of SD-induced service reforms in the IT and information sector: Several results in this study reveal that reforms so far undertaken in the course of SD implementation have specifically fostered intra-EU trade of IT and information services. This holds true for Austria as well as for the EU. This is important, not least because the megatrend to digitalisation makes these services a particular important factor for overall competitiveness in manufacturing and most of all other services. At the same time the analysis also reveals important trade and real income gains from SD implementation for the group of professional, technical and scientific activities. These services activities are also very essential inputs to many other sectors and are important drivers of overall competitiveness.

Accelerating SD trade effects over time: SD-induced intra-EU trade effects for Austria as well as for the total EU have increased over time in most sectors reaching their maximums in 2018. This pattern reflects the rather slow and delayed reform process but also, that it takes time to learn and adapt to the new regulatory environment on the business side. It is an indication that SD-induced reforms needed time to become fully effective.

Small trade diversion effects with the ROW: The analysis reveals that trade creation enhancing intra-EU trade at the cost of trade with the rest of the world (ROW) remains very limited or is partly non-existent in Austrian SD-induced trade patterns.

Average SD effect on real income in Austria of 0.3%: The identified trade effects of the SD from 2010 to 2018 were associated with additional income of about 0.3%. This coincides well with the earlier findings of ex-post studies and studies relying on data reflecting actual SD implementation and barrier reductions. At the EU level real income gains of SD implementation over 2010 to 2018 amount to 0.2%. The simple (unweighted) EU average of income effects

amounted to 0.5%. Positive real income effects are associated with a decline of domestic trade that is substituted by exports and imports due to a decrease in the relative prices of traded services.

Table 8.1: Realised and potential trade and real income effects of the Services Directive in Austria

	Realised effects 2010-2018	Potentials
	Percentage changes	
Intra-EU exports	6.2	9.5
Total exports	4.5	6.4
Intra-EU imports	6.7	7.5
Total imports	4.3	5.6
Domestic trade	-1.1	-0.5
Real Income	0.3	0.2 to 0.4

Source: WIFO calculations.

8.1.3 Potential trade and welfare gains from "best SD implementation"

The counterfactual analysis based on a scenario of best implementation of the SD identifies untapped potentials for intra-EU trade and real income. The counterfactual sets the SOLVIT indicator for all EU countries to the level of the group of best reformers in the sample. This part of the analysis finds the following.

Potential further impacts of 9.5% for Austrian intra-EU exports and of 7.5% for Austrian intra-EU imports: Compliance with the rules of the SD in all EU members like the group of best reformers would boost services exports in the internal market by another 9.5% and 9.1% for Austria and for the EU, respectively. Austrian intra-EU import potentials amount to 7.5%. Austria ranks 6th among EU countries and thus is among countries which have the most to gain from deeper reforms and full compliance with SD rules in its most important EU trading partners. Again, the resulting trade potentials are similar across the services sectors covered by the SD. Throughout, the calculated potentials are higher than the impacts so far realised. Export potentials tend to be higher than potential effects on imports except for the real estate sector. However, results for the real estate sector are very imprecisely estimated.

Small trade diversion effects with the ROW: Realising the trade potentials within the EU would lead to quite moderate trade diversion effects with third countries. For some bilateral relations with the ROW, including those of Austria, a situation of "best implementation" of the SD would initiate reforms that would also be to the benefit of third non-EU country exports. The low trade diversion effects may be taken as an indication that deeper and stronger service sector reforms in the EU may also be to the benefit of ROW countries and contribute to an overall liberalisation of services trade.

Real income potentials for Austria between 0.2% and 0.4%: The total real income potential for Austria – excluding real estate activities - amounts to 0.4% (compared to 0.2% including real estate for which precise estimation of potentials was not possible). This is also the amount by which real income could potentially increase in the total EU.

Highest untapped real income potentials found for publishing and audio-visual activities as well as wholesale and retail trade: Real incomes could be further increased by 0.7% in the publishing sector. Enhanced trade in the wholesale and retail sector would be associated with additional real income of 0.5%. Overall, the analysis of untapped income potentials reveals that implementation of the SD like the best reformers could induce additional income gains in the amount of the effects already realised over the period 2010 to 2018. Real income effects are driven by a shift in relative prices of traded services and arise not only from an increase in exports to countries of improved SD implementation but also from a substitution of more expensive domestic services provision by cheaper imports.

8.2 Conclusions

Overall, the study finds that the SD has delivered benefits in terms of increased trade and real income gains in Austria and at the EU level. The estimates indicate positive trade and welfare effects for all services industries covered by the SD. The IT and information sector, as well as the sectors "professional, scientific and technical activities" and "wholesale and retail trade" contributed most to the overall trade gains realised up to the year 2018. The results also indicate that strong improvements in the compliance with and the implementation of the SD rules could be an important source for additional trade increases and associated real income effects for Austria and the EU. Trade and real income gains in the EU and Austria come with some costs for non-EU countries. However, these trade diversion effects were found to be quite moderate and non-existent in some bilateral relations with the ROW. At the sector level, the revealed trade and income effects from SD implementation in the IT and information sector as well as the group of professional, scientific and technical activities are most promising and important since these activities are essential inputs to many other sectors and key drivers of competitiveness and productivity. Last not least, the analysis provides evidence on the importance and positive impacts of informal and faster solution mechanisms such as the SOLVIT mechanism to tackle possible cross-border services trade.

The counterfactual scenario of "best implementation" considered in the analysis implies an almost perfect world of full compliance and enforcement of SD rules in all Member States. Thus, for the potential effects to be realised policy coordination among members must ensure joint efforts and must prevent uncooperative behaviour of individual countries, which could be born out of the incentive to capture gains for its own export industries but at the same time to protect its own industries from increased import competition. Indeed, the resulting welfare gains stem from an increase in exports but also from an increase in imports that substitute for less efficient, more expensive domestic provision of services. In that sense, further income gains from the SD in Austria will only materialise if all its EU trading partners improve implementation of the SD and push ahead with services sector reforms and, if Austria itself does not deviate from this behaviour to shelter its own services industries. This is also true for all other EU countries.

Hence, the strengthening of mechanisms to improve compliance with internal market rules is of utmost importance. This is a big challenge from a political economy view and might to some extent explain the slow progress of services sector reforms so far. Therefore, better

implementation and enforcement of SD rules crucially depend on Member States' commitment and involvement and better cooperation between all European actors.

In this context the coordination and cooperation mechanisms already in place are important and promising. These include the mutual evaluation exercises, the periodic European Commission assessments on the progress of SD implementation, compilation of administrative and legal barriers in services, the establishment of "Points of Single Contact" as well as initiatives set with the 2017 Services Package. In addition, mechanisms not directly related to the SD but also promoting the enforcement of its rules include the Internal Market Information System (IMI), the Single Market Scoreboard or the SOLVIT mechanism. The IMI is an important online tool to support authorities in cross-border exchanges of information and administrative cooperation in the implementation of internal market legislation. The Single Market Scoreboard has proven to be useful in providing insights into legal enforcement and transposition deficits as well misapplications in the practical execution of the law. This has the potential to increases awareness of problems. In addition, inter-Member-State comparisons create some peer pressure and could help to improve Member State's commitment. Finally, the SOLVIT mechanism challenges breaches of internal market rules and simplifies the procedures for business (and consumers) to complain about problems encountered in cross-border intra-EU trade.

While all these mechanisms are in place and are important to an effective monitoring and evaluation at the national and the EU level, they still face the challenge of lax reporting by individual Member States, diverse reporting standards across countries as well as insufficient awareness of the tools and mechanisms in place. Assessments of barriers to services trade are valuable, but so far not readily accessible. In addition, they are focused on the presence of restrictions and the number of restrictions in place. The pure number of regulations does not reveal the stringency and trade-impeding impact of the regulations. Likewise, the purely legal transposition does not ensure full compliance with SD rules in practice. To tackle these challenges, it seems most important to provide clearer and more precise guidelines as well as further trainings of officials to increase and harmonise reporting standards across EU countries as well as to lift awareness of the Single Market tools at hand.

A focus on developing better indicators that reflect internal market barriers in all sectors, but particularly in services sectors, could promote a common understanding of the challenges and improve the assessment of the economic impact of policy initiatives such as the SD. These in turn could raise awareness and commitment. Such indicators could be formed along the lines of the OECD's Product Market Regulation (PMR) or the World Bank Doing Business Indicators but would have to be adapted for the purpose of assessments of the state of the Single Market for services. It would be important to provide more such indicators at the sector or service activity level. This research study was a first step towards disaggregated analysis at the service sector level and found that improved application of the SD could result in additional trade and real income gains in all sectors analysed. Exploitation of these potentials requires continued identification and monitoring of barriers at the disaggregated level of countries and individual services sectors.

Last not least, it is important to see the SD as an important part of an overall framework for the EU internal market of services. This study has highlighted the most important cross-linkages to

the relevant EU legislative acts and directives. These complementary policies are essential for the SD to be fully effective. The most important of these cover the EU competition policy framework, regulations concerning public procurement, infrastructures for network industries, including electronic communications, but also sector-specific EU regulations for services that are excluded from the SD (financial services, transport and network sectors) or the European Retail Action Plan (ERAP) as well as the Recognition of Professional Qualifications Directive or the Posting of Workers Directive. Since online transactions represent an important mode of delivery for many services the Digital Single Market is also of great importance.

9. Literature

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Appendix A: Country coverage in the estimation sample

OECD		Non-OECD	
AUS	Australia	ARG	Argentina
AUT	Austria	BRA	Brazil
BEL	Belgium	BRN	Brunei Darussalam
CAN	Canada	BGR	Bulgaria
CHL	Chile	KHM	Cambodia
COL	Colombia	CHN	China
CRI	Costa Rica	HRV	Croatia
CZE	Czech Republic	CYP	Cyprus
DNK	Denmark	IND	India
EST	Estonia	IDN	Indonesia
FIN	Finland	HKG	Hongkong
FRA	France	KAZ	Kazakhstan
DEU	Germany	LAO	Laos
GRC	Greece	MYS	Malaysia
HUN	Hungary	MLT	Malta
IRL	Ireland	MAR	Morocco
ISR	Israel	MMR	Myanmar
ITA	Italy	PER	Peru
JPN	Japan	PHL	Philippines
KOR	Korea	ROU	Romania
LVA	Latvia	RUS	Russia
LTU	Lithuania	SAU	Saudi Arabia
LUX	Luxembourg	SGP	Singapore
MEX	Mexico	ZAF	South Africa
NLD	Netherlands	TWN	Taiwan
NZL	New Zealand	THA	Thailand
NOR	Norway	TUN	Tunisia
POL	Poland	VNM	Vietnam
PRT	Portugal		
SVK	Slovak Republic		
SVN	Slovenia		
ESP	Spain		
SWE	Sweden		
CHE	Switzerland		
TUR	Turkey		
GBR	United Kingdom		
USA	United States		

Source: WIFO presentation, based on OECD TiVA.