

Werner Raza, Bernhard Tröster, Rudi von Arnim

ASSESS_TISA: ASSESSING THE CLAIMED BENEFITS OF THE TRADE IN SERVICES AGREEMENT (TISA)

TISA: ÖKONOMISCHE BEWERTUNG DER PROGNOSTIZIERTEN EFFEKTE DES ABKOMMENS ÜBER DEN HANDEL MIT DIENSTLEISTUNGEN

Commissioned by the Chamber of Labour Vienna

Final Report, January 2018

OFSE^{...}
Österreichische Forschungsstiftung
für Internationale Entwicklung



GERECHTIGKEIT MUSS SEIN

Impressum

Medieninhaber: Kammer für Arbeiter und Angestellte für Wien,
Prinz Eugen Straße 20-22, 1040 Wien, Telefon: (01) 501 65 0
Offenlegung gem. § 25 MedienG: siehe wien.arbeiterkammer.at/impressum
Zulassungsnummer: AK Wien 02Z34648 M
ISBN: 978-3-7063-0714-7
Redaktion: Werner Raza, Bernhard Tröster, Rudi von Arnim

Grafik und Druck: AK Wien, 1040 Wien
Verlags- und Herstellungsort: Wien
© 2018 bei AK Wien

Stand Februar 2018
Im Auftrag der Kammer für Arbeiter und Angestellte für Wien

**AUSTRIAN FOUNDATION FOR
DEVELOPMENT RESEARCH**

**ASSESS_TiSA: Assessing the claimed benefits of the
Trade in Services Agreement (TiSA)**

FINAL REPORT, 05 January 2018

Werner Raza, Bernhard Tröster, Rudi von Arnim

Study commissioned by the Chamber of Labour Vienna

Acknowledgements

This report has greatly benefitted from remarks and comments of the participants of the joint AK EUROPA, EPSU and ÖGB Europabüro workshop that took place in Brussels on 30 November 2017. We would like to thank in particular Oliver Prausmüller, Markus Krajewski, Lucian Cernat, Paul-Ugo Jean, Scott Sinclair, Stefan Mayr, Éva Dessewffy, Gregor Lahounik and Penny Clarke for their valuable comments on an earlier version of this study. All errors remain ours.

CONTENTS

- LIST OF TABLES AND FIGURES 2**
- ABBREVIATIONS 3**
- EXECUTIVE SUMMARY 4**
- ZUSAMMENFASSUNG 7**
- 1. INTRODUCTION 11**
- 2. THE EC-SIA ON TISA 13**
 - 2.1. GENERAL APPROACH TO TISA BY ECORYS/CEPR13
 - 2.2. SUMMARY OF RESULTS 15
 - 2.3. METHODOLOGY: DETAILS, LIMITATIONS AND CRITIQUE17
 - 2.3.1. Effects from an eliminated “binding overhang”17
 - 2.3.2. Estimating trade cost equivalents of the “binding overhang”.....18
 - 2.3.3. CGE Model21
 - 2.3.4. Data issues with respect to trade in services.....24
 - 2.4. CONCLUSIONS.....25
- 3. REGULATION IN CONVENTIONAL TRADE ANALYSIS..... 26**
 - 3.1. EMPIRICAL METHODS TO ASSESS THE IMPACT OF SERVICE TRADE REGULATIONS27
 - 3.2. CONCLUSIONS.....31
- 4. THE BENEFITS OF REGULATION..... 33**
 - 4.1. INTRODUCTION33
 - 4.2. THE RATIONALE FOR REGULATION34
 - 4.3. TRUST AS A PRECONDITION FOR THE STABILITY OF MARKET ECONOMIES35
 - 4.4. THE CASE FOR REGULATORY DIVERSITY.....36
 - 4.5. TAKING INTO ACCOUNT THE BENEFITS OF REGULATION – COST-BENEFIT ANALYSIS AND BEYOND37
 - 4.5.1. Taking into account the benefits of regulation with cost-benefit-analysis37
 - 4.5.2. The methodological limits of cost-benefit-analysis.....39
- 5. CASE STUDIES 41**
 - 5.1. CASE STUDY I: TRANSPORTATION SERVICES AND EMISSIONS41
 - 5.2. CASE STUDY II: DIGITAL TRADE, PRIVACY AND DATA PROTECTION.....44
 - 5.3. CASE STUDY III: THE ROLE OF INTERNATIONAL LABOR STANDARDS48
- 6. POLICY RECOMMENDATIONS 50**
- REFERENCES 53**

LIST OF TABLES AND FIGURES

Table 1: Summary of TiSA-SIA macroeconomic results 16
Table 2: Social Indicators TiSA-SIA for the EU..... 16
Table 3: Summary of NTM quantification results for the EU 28
Table 4: Examples of market failures and regulatory interventions in services 34
Table 5: Non-economic regulatory objectives and interventions in services..... 35

Figure 1: Sectoral values for STRI and AVE..... 20

ABBREVIATIONS

AVEs	Ad-Valorem Equivalent
BOP	Balance of Payments
CBA	Cost-Benefit Analysis
CEPR	Centre for Economic Policy Research
CETA	Comprehensive Economic and Trade Agreement
CGE model	Computable General Equilibrium model
DG	Directorate-General
EC	European Commission
EU	European Union
FATS	Foreign Affiliates Trade Statistics
FDI	Foreign Direct Investment
GATS	General Agreement on Trade in Services
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GSC	Global Services Coalition
GTAP	Global Trade Analysis Project
ICT	Information and Communication Technology
LDCs	Least Developed Countries
NTMs	Non-Tariff-Measures
OECD	Organization for Economic Co-operation and Development
OIRA	Office of Information and Regulatory Affairs
SCC	Social Cost of Carbon
SIA	(Trade) Sustainability Impact Assessment
SPS	Sanitary and Phytosanitary Standards
STRI	Services Trade Restrictiveness Index
TiSA	Trade in Services Agreement
TNCs	Transnational Corporations
TTIP	Transatlantic Trade and Investment Partnership
US	United States of America
WTO	World Trade Organization

EXECUTIVE SUMMARY

The negotiations on the Trade in Services Agreement (TiSA) were officially launched in April 2013 and comprise 23 countries, most of which are OECD countries. Until December 2016, when TiSA negotiations were paused, 21 negotiating rounds had taken place. Negotiations had almost been in a final phase when due to US presidential elections, negotiations had to be suspended. At present, the outlook and timeline for the negotiations remain uncertain. Whatever in the end will happen to TiSA, the fundamental objectives pursued by the agreement with its commitment towards progressive services trade liberalization as well as its regulatory agenda will likely resurface in other negotiating fora and pending trade deals, including those pursued by the EU as well as the US administration. The analysis and conclusions of this study will therefore remain relevant regardless of the fate of TiSA.

TiSA in its current form arguably represents one of the most comprehensive attempts to deal with regulatory issues in a trade agreement to date. Indeed, trade policy today is of an almost completely different nature and should in essence be considered an important element in a broader economic project towards promoting ‘deep integration’, i.e. the establishment of a common regulatory framework for market transactions on a global scale. By way of international treaties, national regulations, whether discriminatory in nature or not, are thus increasingly eliminated and/or subjected to regulatory disciplines, the latter in effect constraining the policy space available to national governments for pursuing public policy objectives. Notwithstanding the proclamation to safeguard the right to regulate in the EU mandate, the overarching aim of the TiSA negotiations is thus to align, reduce and simplify existing national regulations in order to decrease their dampening effect on international trade and investment. In addition, future regulation that is burdensome to trade shall be disciplined by the inclusion of standstill and ratchet clauses. Thus going well beyond the WTO GATS agreement, which followed a positive list approach to liberalization commitments, a particular focus of the TiSA negotiations is to target non-discriminatory domestic regulation, i.e. national laws, administrative procedures and standards for the sake of expanding trade.

The debate about TiSA has hence been developing around the pros and cons of the regulatory transformations promoted by the agreement. Conceptualizing the economic effects of regulation and quantifying these has been at the core of the trade sustainability impact assessment (SIA), the European Commission (EC) is obliged to undertake for each trade agreement. The peculiar nature of TiSA posed marked methodological challenges for the SIA contracted out to the Dutch consultancy ECORYS and the London-based CEPR, which submitted their final report in July 2017. Given the importance of the SIA for the trade policy debate in the EU, the first part of this report is hence devoted to a critical appraisal of the results and methodology applied by the EU SIA on TiSA. The main outcome of our assessment of the Ecorys/CEPR SIA study can be summarized in three main conclusions:

- 1) The **economic effects of TiSA according to the SIA study are positive, but insignificant**: The economic effects reported are miniscule and do not make for a convincing case for concluding TiSA. EU GDP is expected to increase by 0.1%, exports by 0.2%. These are level effects to be realized during the implementation period of the agreement. The weighted average increase for all 23 participating countries is 0.05% for GDP and 0.4% for exports. This magnitude of effects is close to statistical insignificance. In the case of the EU, this would mean a one-time increase of the level of real income of EUR 17 for every EU citizen or of EUR 2.5 per year during the implementation period to 2025.
- 2) The **economic case for TiSA rests upon an unrealistic key assumption**: The economic case made in the SIA for the benefits of TiSA rests entirely on the assumption that the difference between the level of services trade liberalization committed under the GATS in

1994 and the current level of services trade liberalization – i.e. the so-called binding overhang – constitutes a source of uncertainty for economic agents, the elimination of which via TiSA would enhance business confidence and thus trigger more trade, investment and growth. However, given the multitude of GATS-plus bilateral trade and investment agreements concluded in the last three decades by the parties to the agreement, in particular the EU, the probability of governments deliberately cutting back on the level of services trade liberalization is very small.

- 3) The **chosen methodology is unable to capture important economic effects**: The methodology applied by the SIA falls short of capturing the multitude of potential effects from the agreement. This owes in particular to the following: (i) the decision to focus on the effects of closing the binding overhang falls short of taking into account the effects of new services trade liberalization, to which the parties to the agreement have committed; moreover, this approach is not able to address the effects of TiSA due to new liberalization measures, e.g. via the envisaged “enhanced regulatory disciplines” on domestic regulation; (ii) Mode 3 (commercial presence), with some 60% the most important element of global services trade, has been excluded from the scope of the SIA, supposedly due to data limitations; (iii) even for the modes of delivery covered, the methodology has to rely on various simplifications and ad-hoc adjustments, in particular with respect to the estimation of tariff equivalents (AVEs), which negatively impinge on the robustness of results.

A major shortcoming of the existing methodological framework applied by impact assessments, to which the TiSA SIA is no exception, relates to the one-sidedness with which it treats the economic characteristics of regulation (see section 3). Regulation however is by definition a two-pronged phenomenon. It both confers costs and benefits upon society. The former come in the form of compliance costs, which mostly, but not exclusively, affect companies insofar as they make productive activities more expensive. Apart from the case where regulation is conducive to trade itself, for instance in the case of fair trade standards, the benefits of regulation accrue to society at large, insofar as they help to forestall harm from society, for instance by restricting the use of toxic chemicals, or directly confer a benefit, e.g. by increasing the quality of a product or service. Typically, the positive externalities generated by regulation greatly exceed their economic cost. These insights notwithstanding, the empirical trade literature has considered the cost side of regulation only, by conceptualizing regulation as a non-tariff barrier to trade. In contrast, an approach is necessary which systematically includes the economic and social benefits of regulation in the assessment of the effects of trade liberalization.

In the sections 4 and 5 of this report, the focus is thus directed towards (i) proposing an alternative conceptualization of the economic role of regulation, taking into account the multi-dimensionality of its economic and social effects as well as the benefits regulation confers upon society; and (ii) provide for three short case studies of the social and economic benefits of regulation in transport services, digital trade and with respect to labor standards, that underline the need for a more nuanced understanding of the role of regulation for public policy objectives, as well as the need to understand the importance of policy space and flexibility for effective regulation.

Given the across-the-board very small income effects reported by recent impact studies on EU trade agreements, including the Ecorys/CEPR TiSA assessment, and the large social benefits conferred upon society by regulation in the public interest, which is increasingly targeted by new-generation trade agreements, it cannot be ruled out that the net effects of many of the recent EU trade agreements might well turn out to be negative. This calls for an approach to EU Trade Policy that takes proper account of both the costs and benefits of regulation. To that end, the report proposes three key policy recommendations:

- 1) **Introduce a balanced approach to regulatory impact assessment** within the overall framework of EU SIA: EU trade impact assessment will have to incorporate the manifold properties of NTMs both more systematically and by way of a more sophisticated methodological approach than at present. 'NTMs' is a catch-all phrase for a very diverse set of standards, regulations, laws and procedures. They range from very detailed technicalities to questions of major societal relevance. Although representing an improvement over the hitherto prevailing outright neglect of the benefits of regulation in EU SIA, the inclusion of conventional cost-benefit approaches (CBA) will not be sufficient to accommodate the methodological challenges inherent in such assessment exercises. Instead, CBA must be complemented by other approaches, for instance social multi-criteria analysis, that are able to systematically deal with the problems of incommensurability, non-compensability and fundamental uncertainty. This is particularly pertinent for regulation of new technologies as well as for core areas of public policy, such as labor and social standards, environmental regulations and public health policies. With the scope of new generation EU trade agreements increasingly becoming concerned with an expanding set of public policy issues, core areas of domestic regulation will inevitably become targeted under the label of *enhanced disciplines for domestic regulation*. This calls for an approach that introduces deliberative modes of assessing the positive as well as negative effects of regulatory alignment under the full participation of all affected stakeholders. With regulatory issues ranging among the top priorities of the current EU trade agenda, comprehensive as well as methodologically sound regulatory impact assessments should thus become an integral part and a priority of future trade policy in the European Union.
- 2) **Take into account the value of policy space and of public interest regulation and extend any new commitments on regulation and regulatory alignment in FTAs with due consideration of the potential costs of irreversibility and lack of flexibility for regulatory policy:** this applies in particular to extending commitments for (a) market access, (b) national treatment; (c) enhanced disciplines on domestic regulation, as well as for (d) the standstill and ratchet clauses. This precautionary approach is of high relevance in cases where (i) regulatory practice has to deal with new technologies and novel economic activities, e.g. digital technologies or biotechnology, (ii) regulation reflects the distinct collective preferences of EU citizens and Member States, whether enshrined in EU and national law, respectively, or not, e.g. data privacy rights, or where (iii) regulations safeguard public policy objectives that are vital for the stability and proper functioning of the EU economy, e.g. in the case of financial services and services of general (economic) interest. Useful instruments for this end are prudential carve-outs as foreseen in CETA for the case of regulating the cross-border transfer of personal data, or the model clause for the exclusion of public services from trade and investment agreements. Similarly, commitments containing sensitive regulatory implications should not be subjected to qualitative conditions (e.g. a necessity test), nor to the principles and guidelines of international bodies if these would introduce a ceiling for the acceptable level of protection.
- 3) **Include legal remedies for safeguarding the public interest in EU trade agreements** that (i) maintain the right to withdraw commitments in cases of extreme changes in economic conditions, e.g. during a severe economic crisis, or a change in collective preferences due to democratically legitimate regime changes; (ii) reserve the right to impose trade sanctions, e.g. withdrawal of liberalization commitments, for severe breaches of internationally agreed standards and fundamental rights, e.g. with respect to ILO Core Labor Standards or international environmental agreements; and (iii) facilitate access to legal remedies for affected communities and individuals in partner countries, e.g. in cases where the economic activities of EU companies or local companies de-facto controlled by EU companies are in breach of international law or EU legislation.

As both the European Commission and the European Parliament have repeatedly underlined, the European Union considers TiSA to become the nucleus of a new blueprint for the regulation of international trade in services. Laying the proper foundations for this new edifice, if it eventually comes into being, instead of perpetuating current imbalances will be of eminent importance. We have argued in this report that for this to be achieved, in addition to looking at the costs of regulation due consideration must be paid to the long-term benefits of trade-related regulation both for economic development and to society at large.

ZUSAMMENFASSUNG

Die Verhandlungen zum Abkommen über den Handel mit Dienstleistungen (TiSA) wurden offiziell im April 2013 eröffnet. Sie umfassen 23 Länder, in der überwiegenden Mehrzahl OECD Mitglieder. Bis Dezember 2016, als die TiSA Verhandlungen ausgesetzt wurden, haben 21 Verhandlungsrunden stattgefunden. Die Verhandlungen befanden sich bereits in der Schlussphase, als aufgrund des US Wahlkampfs die Verhandlungen von der scheidenden US Regierung ausgesetzt wurden. Zum jetzigen Zeitpunkt (Dezember 2017) ist die Zukunft der Verhandlungen nach wie vor unklar. Was auch immer letztendlich mit TiSA passieren wird, die grundlegenden Ziele des Abkommens, nämlich sein Einsatz für eine progressive Liberalisierung des Dienstleistungshandels und seine regulatorische Agenda wird in anderen Verhandlungsforen und Handelsabkommen, nicht zuletzt der EU oder der USA fortgeführt werden. Unabhängig vom Ausgang der TiSA Verhandlungen selbst, bleiben die Analyse und die Schlussfolgerungen der vorliegenden Studie daher relevant.

TiSA in seiner vorliegenden Fassung stellt einen der umfassendsten Versuche für die Behandlung von Regulierungsfragen im Rahmen eines Handelsabkommens dar. In der Tat stellt sich Handelspolitik heutzutage qualitativ völlig anders dar und sollte im Kern als ein wichtiger Bestandteil eines umfassenderen Projekts zur Förderung der „Tiefen Integration“, das heißt der Herstellung eines einheitlichen ordnungspolitischen Rahmens für die Weltwirtschaft verstanden werden. Über den Umweg von internationalen Abkommen, werden innerstaatliche Regelungen, ob diskriminierend oder nicht, zunehmend beseitigt oder sogenannten regulatorischen Disziplinen unterworfen, welche den politischen Handlungsspielraum von nationalen Regierungen zur Verfolgung öffentlicher Politikziele einschränken sollen. Trotz der Bekräftigung des EU Verhandlungsmandats, das Recht auf innerstaatliche Regulierung in der EU zu gewährleisten, besteht das übergeordnete Ziel der TiSA Verhandlungen darin, bestehende nationale Regulierungen anzugleichen, zu reduzieren oder zu vereinfachen, um dadurch deren beeinträchtigende Effekte auf internationalen Handel und ausländischen Investitionen zu vermindern. Zudem sollen künftige, für den internationalen Handel belastende Regulierungen durch die Inkludierung von sogenannten Stillstands- (*standstill*) bzw. Sperrklinken-Klauseln (*ratchet*) erschwert werden.

Die politische Diskussion zu TiSA entwickelte sich vor allem im Hinblick auf die Vor- und Nachteile möglicher regulatorischer Veränderungen durch das Abkommen. Die Konzeptualisierung der ökonomischen Effekte von Regulierung und deren Quantifizierung stand daher auch im Mittelpunkt der von der EU-Kommission für jedes Handelsabkommen durchzuführenden Nachhaltigkeitsprüfung (*Trade Sustainability Impact Assessment - SIA*). Die besondere Eigenart von TiSA als Abkommen zu Dienstleistungshandel brachte daher auch besondere methodische Herausforderungen mit sich. Die von der EU-Kommission mit der Durchführung der SIA Studie beauftragten Forschungsinstitute ECORYS und CEPR übergaben ihren Endbericht im Juli 2017. Aufgrund der Bedeutung des SIA für die handelspolitische Diskussion in der EU unterzieht die vorliegende Studie in ihrem ersten Teil das SIA einer kritischen Prüfung sowohl im Hinblick auf die ausgewiesenen ökonomischen Ergebnisse als auch im Hinblick auf die

angewandte Methodik. Die Ergebnisse unserer Prüfung der ECORYS/CEPR Studie können in drei Hauptpunkten zusammengefasst werden:

- 1) Die im SIA ausgewiesenen **ökonomischen Effekte von TiSA sind positiv, aber unbedeutend**: Die geschätzten ökonomischen Effekte sind vernachlässigbar klein und als solche kein starkes Argument für den Abschluss der Verhandlungen. Für das EU BIP wird ein Anstieg um 0,1%, für die Exporte ein Anstieg um 0,2% erwartet. Der gewichtete durchschnittliche BIP Zuwachs für alle 23 teilnehmenden Staaten beträgt 0,05%, der Zuwachs bei den Exporten 0,4%. Dies sind einmalige Niveaueffekte, die im Zuge der Umsetzung des Abkommens realisiert werden. Die Größe dieser Effekte ist statistisch nahezu insignifikant. Für die einzelne EU Bürgerin, den einzelnen EU Bürger bedeutet dies umgerechnet einen einmaligen durchschnittlichen Realeinkommenszuwachs von 17 Euro, oder rund 2,50 Euro pro Jahr während der Implementierungsphase bis 2025.
- 2) Die **ökonomische Begründung für TiSA beruht auf einer unrealistischen Grundannahme**: Die ökonomische Begründung für TiSA beruht zur Gänze auf der Annahme, dass die Differenz zwischen dem Niveau der Liberalisierung des Dienstleistungshandels auf Basis des 1994 abgeschlossenen GATS-Abkommens und dem derzeitigen Niveau der Dienstleistungsliberalisierung – der sogenannte Bindungsüberhang (*binding overhang*) – eine Quelle der Unsicherheit für Investoren darstellt. Wird diese durch TiSA beseitigt, so die Annahme, dann führt dies zu einer Verbesserung des Geschäftsklimas, was wiederum mehr Handel, Investitionen und Wachstum bringt. Dabei wird jedoch nicht berücksichtigt, dass die TiSA Staaten und vor allem die EU in den letzten drei Jahrzehnten auf Basis einer GATS-plus Agenda eine Vielzahl von bilateralen Handels- und Investitionsabkommen abgeschlossen haben. Die Wahrscheinlichkeit, dass Regierungen das Niveau der zwischenzeitlich eingegangenen Liberalisierungsverpflichtungen bewusst auf das GATS Niveau zurücknehmen, sind daher äußerst gering.
- 3) Die **Methodik der SIA Studie ist nicht imstande wichtige ökonomische Effekte zu erfassen**: Das hat vor allem mit den folgenden Faktoren zu tun: (i) die Entscheidung nur die Effekte der Beseitigung des Bindungsüberhangs zu untersuchen geht zulasten einer Untersuchung der Effekte neuer substantieller Liberalisierungsverpflichtungen, zu denen sich die Verhandlungsparteien inklusive der EU verpflichtet haben. Damit können die Effekte sogenannter „verstärkten regulatorischen Disziplinen“ für innerstaatliche Regelungen, die im Rahmen von TiSA ins Auge gefasst werden, nicht eingeschätzt werden; (ii) Mode 3 (kommerzielle Präsenz), mit rund 60% das wichtigste Element des internationalen Dienstleistungshandels, wurde im Rahmen des SIA nicht untersucht, vermutlich aufgrund von Datenproblemen; (iii) selbst für die von der SIA Studie betrachteten Erbringungsarten mussten verschiedene Vereinfachungen und ad-hoc Anpassungen vorgenommen werden, vor allem im Hinblick auf die Schätzung der Zolläquivalente (AVEs), mit der Konsequenz, dass die Robustheit der Resultate leidet.

Ein grundsätzliches Problem des bestehenden methodischen Rahmens für die Nachhaltigkeitsprüfung von Handelsabkommen und damit auch von TiSA, besteht in der Einseitigkeit, mit der es die ökonomischen Eigenschaften von Regulierung abbildet (siehe Abschnitt 3). Regulierung ist jedoch immer ein Phänomen mit zwei Seiten: sie bedeutet für die Gesellschaft immer sowohl Kosten als auch Nutzen. Die Kosten treten in Form von Umsetzungs- bzw. Anwendungskosten auf, die primär Unternehmen treffen, insofern sie deren wirtschaftliche Aktivitäten verteuern. Abgesehen vom Umstand, dass Regulierung auch den Handel direkt befördern kann, beispielsweise im Fall von Fair Trade Standards, kommt der Nutzen von Regulierung der Gesellschaft insgesamt zu, insofern sie Schaden von der Gesellschaft abwendet, zum Beispiel wenn der Einsatz von gefährlichen Chemikalien verboten wird, oder wenn durch

Standards die Qualität von Produkten oder Dienstleistungen verbessert wird. Die einschlägige wissenschaftliche Literatur zeigt, dass die positiven Externalitäten von Regulierung die damit verbundenen Kosten oft um ein Vielfaches übersteigen. Nichtsdestotrotz betrachtet die empirische Handelsliteratur nur die Kostenseite von Regulierung, indem sie Regulierung grundsätzlich als nicht-tarifäres Handelshemmnis konzeptualisiert. Im Unterschied dazu ist ein methodischer Ansatz notwendig, der im Rahmen von Abschätzungen von Handelsliberalisierung in systematischer Weise auch den ökonomischen und gesellschaftlichen Nutzen von Regulierung miteinschließt.

Im den Abschnitten 4 und 5 der vorliegenden Studie geht es daher zum einen darum (i) eine alternative Konzeptualisierung der ökonomischen Funktion von Regulierung zu entwickeln, welche der Multidimensionalität ihrer ökonomischen und sozialen Effekte und hier vor allem ihrem gesellschaftlichen Nutzen gerecht wird; sowie zum anderen darum (ii) im Rahmen von drei Fallstudien zum ökonomischen und sozialen Nutzen von Regulierung im Transportwesen, im digitalen Handel sowie im Hinblick auf internationale Arbeitsnormen die Bedeutung eines nuancierteren Verständnisses der Rolle von Regulierung im öffentlichen Interesse herauszuarbeiten. Zusätzlich soll die Wichtigkeit von wirtschaftspolitischem Handlungsspielraum und von Flexibilität für effektive Regulierung betont werden.

Vor dem Hintergrund der generell sehr kleinen Einkommenseffekte, die von Studien für die rezenten EU Handelsabkommen ausgewiesen wurden, einschließlich der ECORYS/CEPR Studie zu TiSA, und dem beträchtlichen gesellschaftlichen Nutzen von Regulierung, die zunehmend ins Visier der EU Handelsabkommen der neuen Generation gerät, kann nicht ausgeschlossen werden, dass die Nettoeffekte dieser Abkommen langfristig negativ ausfallen werden. Daher sollte die EU Handelspolitik sowohl den Nutzen als auch die Kosten von Regulierung systematisch in Betracht ziehen. Zu diesem Zweck gibt die vorliegende Studie drei zentrale Politikempfehlungen:

- 1) **Einführung eines ausgewogenen Ansatzes für die regulatorische Folgenabschätzung im Rahmen** der EU Nachhaltigkeitsprüfungen von Handelsabkommen: EU Nachhaltigkeitsprüfungen von Handelsabkommen sollten die unterschiedlichen Eigenschaften von nicht-tarifären Maßnahmen systematischer und im Wege einer ausgefeilteren Methodik als derzeit berücksichtigen. „Nicht-tarifäre Maßnahmen“ sind ein vager Sammelbegriff für ein sehr unterschiedliches Set von Standards, Regulierungen, Gesetzen oder Verfahren. Sie reichen von technischen Details bis zu Fragen von großer gesellschaftlicher Relevanz. Auch konventionelle Kosten-Nutzen-Analysen (CBA) sind nicht ausreichend um die methodischen Schwierigkeiten, die sich im Kontext solcher Abschätzungen stellen, zu überwinden, selbst wenn sie eine Verbesserung im Vergleich zur bislang vorherrschenden Nichtberücksichtigung im Hinblick auf den Nutzen von Regulierung darstellen. Daher muss eine Kosten-Nutzen-Analyse mit anderen Ansätzen ergänzt werden, die imstande sind, mit den dabei auftretenden Problemen wie die Inkommensurabilität und Nicht-Kompensierbarkeit von Werten, sowie der fundamentalen Unsicherheit zukünftiger Entwicklungen systematisch umzugehen. Dies ist vor allem wichtig für die Regulierung neuer Technologien, als auch für Kernbereiche der öffentlichen Politik, wie etwa Arbeits- und Sozialstandards, Umweltregulierungen und Gesundheitspolitiken. Indem EU Handelsabkommen der neuen Generation zunehmend Themenbereiche der öffentlichen Politik umfassen, werden früher oder später Kernbereiche innerstaatlicher Regulierung verstärkt zum Thema der Disziplinen für diese Regulierung. Daher ist ein Ansatz notwendig, der deliberative Verfahren der Abschätzung von positiven und negativen Aspekten regulatorischer Angleichung unter Einbeziehung aller betroffenen Akteure vorsieht. Da regulatorische Themen an die Spitze der Prioritätenliste der EU Handelspolitik aufrücken, muss eine methodisch angemessene regulatorische Folgenabschätzung zu einem integralen Bestandteil der zukünftigen Handelspolitik der EU werden.

- 2) **Eingehen neuer Verpflichtungen zu Regulierungsfragen und zu regulatorischer Angleichung in Handelsabkommen nur auf Basis einer eingehenden Abschätzung der potenziellen Kosten für die Regulierungspolitik aufgrund der damit einhergehenden Irreversibilität und des Verlusts an Flexibilität:** dies ist vor allem von Bedeutung im Hinblick auf Verpflichtungen bezüglich (i) des Marktzugangs, (ii) der Nicht-Diskriminierung, (iii) der verstärkten Disziplinen für die innerstaatliche Regulierung, sowie (iv) der Stillstands- und Sperrklinken-Klauseln. Das hier vorgeschlagene Vorsichtsprinzip ist von hoher Relevanz in Fällen in denen (i) die regulatorische Praxis es mit neuen Technologien und neuen ökonomischen Aktivitätsfeldern zu tun hat, zum Beispiel bei digitalen Technologien oder Biotechnologien, (ii) Regulierungen die spezifischen kollektiven Präferenzen von EU BürgerInnen und Mitgliedsstaaten spiegeln, zum Beispiel das Recht auf Datenschutz, und zwar unabhängig davon ob diese im EU oder nationalen Recht verankert sind oder nicht, oder (iii) Regulierungen legitime öffentliche Ziele verfolgen, die für die Stabilität und das Funktionieren des EU Wirtschaftslebens von zentraler Bedeutung sind, beispielsweise im Fall des Finanzsektors oder von Dienstleistungen im allgemeinen (wirtschaftlichen) Interesse. Nützliche Instrumente dafür sind prudentielle Ausnahmeklauseln (prudential carve-outs) wie sie im CETA Abkommen für den grenzüberschreitenden Transfer von persönlichen Daten vorgesehen sind, oder Musterklauseln für den Anwendungsausschluss von öffentlichen Dienstleistungen von Handels- und Investitionsabkommen. In ähnlicher Weise sollten für Liberalisierungsverpflichtungen, die Implikationen für sensible Regulierungsbereiche beinhalten, keinerlei Auflagen in Kauf genommen werden, welche die nationale Regulierungsautonomie bestimmten Einschränkungen wie zum Beispiel einem Notwendigkeitstest, oder Prinzipien bzw. Leitlinien internationaler Einrichtungen unterwerfen, sofern diese Obergrenzen für Schutzbestimmungen vorsehen.
- 3) **Verankerung von Rechtsmitteln zum Schutz öffentlicher Interessen in EU Handelsabkommen,** insbesondere (i) das Recht zur Rücknahme von Liberalisierungsverpflichtungen im Fall von außergewöhnlichen Veränderungen der wirtschaftlichen Gegebenheiten, zum Beispiel während einer schweren ökonomischen Krise, oder einer Veränderung der kollektiven Präferenzen im Rahmen eines demokratisch legitimierten Regierungswechsels; (ii) das Recht Handelssanktionen einzuführen im Fall schwerwiegender Verletzungen international vereinbarter Standards und grundlegender Rechte, zum Beispiel der ILO Kernarbeitsnormen oder internationaler Umweltabkommen; und (iii) die Erleichterung des Zugangs zu Rechtsmitteln für betroffene Gemeinschaften und BürgerInnen in EU Partnerländern, beispielsweise in Fällen in denen die wirtschaftliche Aktivitäten von EU Unternehmen oder von lokalen Unternehmen im Partnerland, die unter dem beherrschenden Einfluss von EU Unternehmen stehen, internationale Standards oder das EU Recht verletzen.

Wie von der EU-Kommission und dem Europäischen Parlament mehrfach betont wurde, soll aus Sicht der EU das TiSA Abkommen der neue internationale Maßstab für die Regulierung des Dienstleistungshandels werden. Dafür die richtigen Grundlagen zu legen statt die bestehenden Schieflagen fortzusetzen, ist von eminenter Bedeutung. In dieser Studie haben wir argumentiert, dass es dafür vor allem darauf ankommen müsste, einen ausgewogenen Zugang zum Thema Regulierung zu finden, der neben den Kosten, vor allem den langfristigen Nutzen von handelsrelevanter Regulierung sowohl für die Entwicklung der Wirtschaft als für die Gesellschaft insgesamt systematisch in Betracht zieht.

1. INTRODUCTION

“The first thing you need to know about trade deals in general is that they aren’t what they used to be. (...) Basically, old-fashioned trade deals are a victim of their own success: there just isn’t much more protectionism to eliminate [...] these days, “trade agreements” are mainly about other things.”

Paul Krugman, New York Times, 27/02/2014

The negotiations on the Trade in Services Agreement (TiSA) were officially launched in April 2013 and comprise 23 countries, most of which are OECD countries.¹ Until December 2016, when TiSA negotiations were paused, 21 negotiating rounds had taken place (EC 2017). Negotiations had almost been in a final phase when due to the US presidential elections, negotiations had to be suspended. As the Trump administration has not clarified its position on TiSA so far, the future of TiSA remains in a state of limbo (as of the end of 2017) with a number of controversial subjects still to be discussed in the negotiations. Thus, the outlook and timeline for the negotiations remain uncertain.

Basically three scenarios are possible: (i) the US withdraws definitely and negotiations collapse or are suspended indefinitely; (ii) the US pull out of the talks, but other parties continue to negotiate under EU leadership; (iii) the US recommits to the negotiations with a new and potentially more aggressive negotiating mandate (cf. Sinclair 2017). Whatever in the end will happen to TiSA, the fundamental agenda pursued by the agreement with its commitment towards progressive services trade liberalization as well as its deregulatory bias will likely resurface in other negotiating fora and pending trade deals, including those pursued by the EU as well as the US administration. The analysis and conclusions of this study will therefore remain relevant regardless of the fate of TiSA.

Apart from a draft core text, so far 20 annexes on a wide range of regulatory issues were negotiated, of which several were close to completion in 2016.² Thus, TiSA in its current form arguably represents one of the most comprehensive attempts to deal with regulatory issues in a trade agreement to date. TiSA is therefore a case in point for the statement by Nobel laureate Paul Krugman cited above. Indeed, trade policy today is of an almost completely different nature and should in essence be considered as an important element in a broader economic project towards promoting ‘deep integration’ (Nölke/Claar 2012), i.e. the establishment of a common regulatory framework for market transactions on a global scale. By way of international treaties, national regulations, whether discriminatory in nature or not, are thus increasingly eliminated and/or subjected to regulatory disciplines, the latter in effect constraining the policy space available to national governments for pursuing public policy objectives.

It is precisely this desire of constraining national policy space for the sake of facilitating international economic exchange that has motivated the TiSA negotiations. Frustrated by the lack of progress on services trade liberalization within the remit of the WTO Doha Round and upon the instigation of transnational corporations (TNCs) and their lobby organizations on both sides of the Atlantic, a group of leading WTO member countries including the United States and the European Union, the self-appointed *Really Good Friends of Services*, initiated a negotiating

¹ The 23 countries negotiating TiSA are: Australia, Canada, Chile, Chinese Taipei, Colombia, Costa Rica, the European Union, Hong Kong China, Iceland, Israel, Japan, Korea, Liechtenstein, Mauritius, Mexico, New Zealand, Norway, Pakistan, Panama, Peru, Switzerland, Turkey and the United States.

² Category A annexes close to completion are: Dispute Settlement, Domestic Regulation, Electronic Commerce, Financial Services, Institutional Provisions, Localization, Movement of Natural Persons, Telecommunications Annex, Transparency, Annex; Category B annexes requiring further negotiations are: Air Transport, Delivery Services, Direct Selling, Energy and Mining-Related Services, Export Subsidies, Government Procurement, Maritime Transport, Patient Mobility, Professional Services, Road Freight Services, State-Owned Enterprises (Sinclair 2017).

process for a new Trade in Services Agreement (TiSA). According to the European Union, one of its main protagonists, “[T]he agreement should confirm the common objective of progressively liberalising trade in services as a means of promoting economic growth [...]” (Council of the European Union 2013: 3). To this end, negotiations should “[...] provide for the absence or elimination of existing discriminatory measures and/or the prohibition of new or more discriminatory measures” (*ibid.*). Similarly, “[T]he agreement shall contain new or enhanced regulatory disciplines as compared to GATS based on proposals by the parties. To that end, the negotiations should aim at including inter alia regulatory disciplines concerning transparency, domestic regulation, state-owned enterprises, telecommunication services, computer related services, e-commerce, cross-border data transfers, financial services, postal and courier services, international maritime transport services, government procurement for services and subsidies.” (*ibid.*).

Notwithstanding the proclamation to safeguard the right to regulate in the EU mandate, the overarching aim of the negotiations is thus to align, reduce and simplify existing national regulations in order to decrease their dampening effect on international trade and investment. In addition, future regulation that is burdensome to trade shall also be disciplined by the inclusion of standstill and ratchet clauses.³ Thus going well beyond the WTO GATS agreement, which followed a positive list approach to liberalization commitments, a particular focus of the TiSA negotiations is to target non-discriminatory domestic regulation, i.e. national laws, administrative procedures and standards, or what in trade economics parlance has been tellingly termed ‘*behind-the-border barriers*’.

Mainstream economic theory suggests that the disciplining of diverging national regulations – termed “Non-Tariff-Measures (NTMs)” in trade parlance – will entail cost savings which will transfer into higher income and growth. Not surprisingly, then, economic analysis has made considerable efforts to include NTMs in its assessments exercises of the effects of trade agreements. On a conceptual level, mainstream trade economics treats NTMs either as a cost to business or as rents accruing to companies, the removal or alignment of which raises economic welfare. However, NTMs which come for instance in the form of health and safety standards or technical standards, arguably confer a benefit to society. Thus, a proper treatment of NTMs in trade impact assessments would call for an analysis of both costs and benefits of NTMs for society. In other words, in addition to the cost savings for businesses, the consequences of a NTM removal or alignment for the social benefits that this NTM has so far conferred upon society have to be investigated as well. This issue is relevant across a wide range of technical standards and regulations, but particularly pertinent in the case of highly sensitive public policy areas like health standards, labor standards or environmental regulations. Given the broad scope of the new generation trade agreements including TiSA, it should thus come as no surprise that civil society organizations and trade unions have become increasingly concerned about the implications of the new trade agreements on social welfare.

In a similar vein, the debate about TiSA has also been developing around the pros and cons of the kind of regulatory transformations promoted by the agreement. Conceptualizing the economic effects of regulation and quantifying these has thus been at the core of the trade sustainability impact assessment (SIA), the European Commission (EC) is obliged to undertake for each trade agreement. The peculiar nature of TiSA posed marked methodological challenges for the SIA contracted out to the Dutch consultancy ECORYS and the London-based CEPR, which submitted their final report in July 2017. The study reports positive, but very small

³ A standstill clause in a trade agreement means that the parties have to list all the barriers as they are at the moment of taking commitments and afterwards cannot introduce any new barriers. A ratchet clause in a trade agreement means that if – after entry into force of an agreement – a party unilaterally removes a barrier in an area where it had made a commitment, it cannot reintroduce it anymore. The standstill and ratchet clause in TiSA relate to national treatment only (EC 2016a).

economic benefits from the agreement. Given the importance of the SIA for the trade policy debate in the EU, the first part of the present study is hence devoted to a critical appraisal of the results and methodology applied by the EU SIA on TiSA (Section 2).

Upon the basis of a critique of the standard approach to regulation in trade analysis (Section 3), in the second part of the study, we will then focus on (i) proposing an alternative conceptualization of the economic role of regulation, taking into account the multi-dimensionality of its economic and social effects (Section 4), and (ii) provide for short case studies of the social and economic benefits of regulation in the services sector that underline the need for a more nuanced understanding of the role of regulation for public policy objectives, as well as the need to understand the importance of policy space and flexibility for effective regulation (Section 5). A final section with policy recommendations concludes (Section 6).

2. THE EC-SIA ON TiSA

After the authorization of the European Commission (EC) in March 2013 for TiSA negotiations, the EC contracted Ecorys and CEPR to carry out a *Trade Sustainability Impact Assessment (SIA)* following the characteristics, objectives and principles for such an assessment (2016b). A SIA generally assesses the effects of trade provisions with regard to economic, social, environmental and human rights issues in the EU and selected other countries *ex ante* and serves as an important input to the decision-making process in trade negotiations. The study was finalized and published in July 2017 with all interim and final documents available online.⁴

2.1. General approach to TiSA by Ecorys/CEPR

The general approach chosen by Ecorys/CEPR to quantify the impact of TiSA on a macro and sectoral level is predicated upon the assessment with respect to the likely outcome of the TiSA negotiations. Following the inputs of a steering committee, it is assumed that TiSA will primarily lead to the *elimination of the so called "binding overhang"*. As commitments in the General Agreement on Trade in Services (GATS) are less liberal than actual regulatory measures, there exists a gap between bound commitments and actually applied market access (Ecorys/CEPR 2017a: 27). The adjustment of the regulatory framework towards the existing level of market access via TiSA would reduce (macroeconomic) uncertainty to investors as the policy space of regulators to restrict regulations to the GATS level would be eliminated. Thus, the effects reported in the SIA are derived from the *reduction in policy uncertainty* associated with the binding overhang, leaving existing discriminatory policies, market access conditions and domestic regulations unchanged (Ecorys/CEPR 2017b: 11).

The approach to assess the effects of TiSA applied in this SIA appears very reductionist with regard to the general three-fold approach to reduce trade-distorting regulations in services trade in international agreements, such as the GATS. The first element typically refers to the principle of non-discrimination. Thus, discriminatory regulations against imported services or foreign suppliers of services should be reduced or eliminated. Secondly, limiting market access, for instance via conditionalities with respect to certain qualifications (natural persons) or legal form (corporations), should be avoided. Thirdly, domestic regulations should be disciplined, if they are barriers to trade in services (taking into account public policy objectives) (Krajewski 2016a). The SIA refers particularly to the first pillar on discriminatory policies, as Ecorys/CEPR model "specifically changes in bindings applied against discriminatory policies only" (Ecorys/CEPR 2017b: 12) assuming that actual policies do not have to change with TiSA.

⁴ See: <http://www.trade-sia.com/tisa/downloads/> (08/10/2017)

The exclusion of further liberalization effects (i.e. improved market access) and de-regulation (i.e. disciplines on domestic regulation) in the SIA analysis could be interpreted as a ‘low hanging fruits’ scenario, which presumably will support a less controversial negotiation process. This is however in contrast to studies claiming that existing rules and regulations are a substantial barrier to trade in services (see for instance results by Hufbauer et al. 2010 as reported by EP 2016a) as well as to approaches applied in previous SIAs with regard to trade in services, which simulate the effects of trade cost reductions due to changes in regulations (e.g. Ecorys 2017 on TTIP).

Most importantly, the SIA does not take into account the specificities of services trade and regulations, as indicated by the EC itself (EC 2017: 3). The focus on a “binding overhang” in regulations does not adequately reflect the ambitions of the TiSA negotiating partners, notably the EU itself, which clearly aims at a higher level of liberalization than just binding the existing regulatory framework. The negotiation mandate provided by the Council of the EU to the EC as well as the concept and position papers published by the EC go beyond the binding of discriminatory policies. The mandate proposes that TiSA “shall contain new or enhanced regulatory disciplines as GATS” (Council of the European Union 2013: 4), the EC speaks of “tackling the existing barriers” (EC 2016a: 2) and includes in its revised second offer “significantly improve[d] access conditions in a number of sectors and all modes of supply”⁵. In addition, corporate lobbies such as ‘Team TiSA’, the ‘Global Services Coalition (GSC)’ or ‘Business Europe’ have called for a comprehensive agreement and a high level of ambition in TiSA negotiations with “real market access gains across all sectors” (GSC 2014: 3) and “as a minimum [...] transparency and good governance disciplines in the conduct of domestic regulation” (ibid.: 4).

The EC claims correctly that the extent of liberalization and de-regulation from TiSA depends on the negotiated outcomes and not on its internal discussions and its offers. In addition, market access and national treatment commitments are scheduled individually by each TiSA party (EC 2016a: 3). The leaked negotiation papers, for instance the Annexes on domestic regulation and various sectors, indicate however that far reaching intentions to liberalization and deregulation are – at least partially – supported by the EU.⁶ Thus, the SIA results have only limited significance in terms of covering the potential effects of liberalization and de-regulations as intended by the EC and its major business stakeholders as well as other parties to the negotiations.

This methodological approach leads also to further queries with regard to the actual validity of the concept of a “binding overhang” as well as the methodologies applied. Firstly, the theoretical argument underpinning the SIA’s assessment of the economic benefits of TiSA, namely that the elimination of the binding overhang will increase business confidence and thus increase trade and investment should be complemented by another important argument. As the more recent development economics literature has convincingly argued, sufficient policy space is an important requirement for economic development (see e.g. Rodrik 2011). A similar argument can be made with respect to the policy space necessary for effective public policy. The binding of a given level of regulation constrains the future options available to policy-makers, which will arguably confer a social cost upon society to the extent that certain regulatory options are no longer available when needed or are costly to re-introduce given commitments under international trade treaties. Secondly, given the large number of international and bilateral trade and investment agreements concluded since 1994, the existence of an economically

⁵ See: <http://trade.ec.europa.eu/doclib/press/index.cfm?id=1133> (08/10/2017)

⁶ See: <https://wikileaks.org/tisa/releases/#May%202016%20TiSA%20Publication> (08/10/2017)

significant “binding overhang” is doubtful. Against the background of binding GATS-plus regulations under other more recent agreements and the threat of being challenged before international investment tribunals, the discretion of governments to restrict regulations to the GATS level has been severely curtailed.

Finally, the SIA – as any quantitative assessment – is affected by the lack of adequate data on trade in services and by missing approaches to capture the full scope of services trade. (Rueda-Cantuche et al. 2016). The applied databases and the CGE model refer to cross-border trade in services only and do not include services trade through Mode 3 (commercial presence). Since there are currently no adequate data or models available to fully capture the TiSA effects on services trade, the existing SIA has important limitations to show the manifold effects of TiSA.

2.2. Summary of results

Given that the SIA assesses the effects of a reduction in policy uncertainty due to the binding effects from TiSA only, the reported economic effects are positive for the EU as a whole but close to insignificance. Ecorys/CEPR considers two scenarios for their simulations. Experiment A includes the current 23 TiSA countries, while Experiment B includes in addition the Asian countries China, Vietnam, Malaysia, Philippines and Thailand as potential TiSA partners. In both scenarios it is assumed that 90% of the trade costs related to the binding overhang can be removed via TiSA. Further, public services and particular activities in the air transport sector are excluded and both scenarios take existing FTAs such as the EU-Canada agreement CETA into account. Thus, country pairs with FTAs in place have no binding overhang anymore and no reduction in trade costs is assumed. The scenarios are conducted relative to a baseline scenario with projected data up to 2025 (see all details in Ecorys/CEPR 2017b: 15-16).

The overview on the reported SIA results in Table 1 shows that the macroeconomic variables hardly change. In the large majority of TiSA countries (20 out of 23 countries) changes in real national income are reported as 0.0% or 0.1% (Ecorys/CEPRS 2017b: 28). Only Hong Kong, Mauritius and Taiwan see more pronounced changes in macroeconomic variables due to their relatively large share of service exports.

For the EU as whole, the SIA reports positive but small change to real income (0.1%). In absolute numbers, this would be equivalent to a one-time increase in real income of EUR 17 per EU citizen. Over the suggested implementation period to 2025, this would be equal to an increase of EUR 2.5 per year and capita. TiSA effects are not reported for the single EU member states. However, following the analysis by Ecorys/CEPR illustrated in Figure 2.4 (Ecorys/CEPR 2017a: 35), the impact of TiSA per country increases with the country's share of services exports to GDP. Assuming that the binding overhang for the EU member states is approximately the same, this suggest that smaller EU economies such as Luxemburg, Ireland, Malta or Cyprus would benefit relatively more compared to other EU member states, as their service exports to GDP ratio is higher than in other EU member states. For Austria, this would suggest macroeconomic changes below the EU average, as the share of services exports to GDP is lower than the EU average. However, country-specific effects would require a comprehensive analysis, which is not included in the Ecorys/CEPR SIA.

The modest effects are also visible on the sectoral basis. In the EU, output changes different to 0.0% are reported for 4 out of 25 sectors, namely ‘Water Transport’ (-0.3%), ‘Finance’ (0.1%), ‘Insurance’ (0.2%) and ‘Motor Vehicles’ (0.1%) (Ecorys/CEPRS 2017b:38). In other TiSA countries, sectoral changes in output are most pronounced in ‘Water Transport’ (+10.2% in Mauritius), ‘Business and professional services’ (-4.2% in Mauritius) and ‘Insurance’ (-3.1%

in Turkey). This also highlights that sectoral results are diverse among the countries and within the countries, which also affects manufacturing sectors (most notably in Hong Kong, Mauritius and Pakistan) (ibid.).

Table 1: Summary of TiSA-SIA macroeconomic results

	Real National Income*	GDP (quantity index)*	Consumer Prices	Total Exports	Total Imports
EU	0.1	0.1	0.0	0.2	0.2
Max	1.2 (Hong Kong)	1.1 (Hong Kong)	-0.8 (Mauritius)	2.6 (Mauritius)	1.9 (Hong Kong)
Weighted Average	0.05	0.05	-0.0	0.4	0.3
Min	0.0 (var.)	0.0 (var.)	0.1 (var.)	0.1 (var.)	0.1 (var.)
USA	0.0	0.0	0.0	0.6	0.4
LDC	0.0	0.0	0.0	0.0	0.0

* GDP measures changes in aggregated quantities; real national income reports deflated value of national production (profits, wages and indirect taxes) (see also Ecorys/CEPR 2017a: 31).

Notes: Results refer to Experiment A only as Experiment B shows not significantly different results for most countries; Figures refer to changes in % relative to baseline scenario in 2025; "Max" and "Min" indicate the TiSA parties with the highest and smallest changes; "Weighted average" refers to single country data weighted by GDP (in PPP terms) for the year 2015 (source: World Development Indicators).

Source: own elaborations, Ecorys/CEPR 2017a and 2017b

With regard to trade, overall exports and imports are hardly affected by TiSA in the Ecorys/CEPR set-up. EU exports are declining only in the sector 'Water Transport' (-0.2%), while trade increases most in the EU sector 'Finance' with exports and imports both growing by +4.2%. (Ecorys/CEPRS 2017b: 47;53). Bilateral EU trade increases with Japan and the USA (approximately 1.8%) driven by exports in 'Finance' and 'Water transport'. Total *extra-EU* exports and imports change by only 0.5% however. Most importantly, *intra-EU* trade in services declines in most service sectors (ibid.: 60-72). On the full TiSA level, the sectoral results are again mixed and are most noticeable in the sectors 'Finance', Business, professional services' and 'ICT services'.

The SIA provides also a social impact analysis including qualitative analysis, case studies, human rights impact assessments and quantitative analyses. For the latter, employment, wage and poverty & inequality issues are considered, and assessed with indicators derived from the CGE model (Table 2).⁷

Table 2: Social Indicators TiSA-SIA for the EU

Indicator	GDP	Consumer Prices	Wages Low skilled	Wages Medium skilled	Wages High skilled
EU	0.1	0.0	0.1	0.1	0.1

Note: changes in % relative to baseline scenario in 2025

Source: Ecorys/CEPR 2017a

The reported indicators show again very limited impacts from TiSA. However, the indicators themselves have only limited validity with regard to the social issues that should be addressed. Again, this is related to the limits of the applied CGE model. For instance, the model assumes that the labor force is fixed, thus quantitative estimates of total employment changes are not

⁷ The TiSA-SIA does not consider social impacts in the area of education, health, social services or social security services given that the EU excludes these topics from the TiSA negotiations (Ecorys/CEPR 2017a: 64).

possible. Also, poverty and inequality issues can only be related to consumer prices and potential changes in expenditure possibilities. These limitations also become apparent in the case studies concerning gender equality and consumer effects in the EU (Ecorys/CEPR 2017a: 71-79).

Most importantly, the assumptions and the structure of the applied CGE model exclude potential employment effects and largely neglect potential adjustment costs on labor markets (see also details below). The fixed labor supply assumption suggests that jobs can be shifted from one sector to another, without inferring any significant cost upon society. This can be seen in the case of Hong Kong,⁸ where 18 out of 25 sectors see declining low-skilled employment which is however assumed to be fully compensated by more employment in five other sectors (Water Transport, Finance, ITC services, construction and other primary) (Ecorys/CEPR 2017b: 81). Potential short- and medium-run adjustment costs are only included in the context of the ‘human right to work’ (Ecorys/CEPR 2017a: 104). Here, support for certain specific groups (e.g. declining employment in the EU maritime transport sector) and in the most affected countries (Hong Kong, Mauritius and Pakistan) is recommended in the report.

2.3. Methodology: details, limitations and critique

As indicated above, the authors of the SIA assume that TiSA will primarily have a binding effect on existing regulations to trade in services. In order to assess the economic effects related to the reduction in policy uncertainty, a two step-process is applied in the SIA. Firstly, gravity modelling provides an estimate for trade cost equivalents which quantify the costs of the binding overhang. Secondly, the economic effects from a reduction of these costs due to the binding of regulation to the current status quo are derived from a CGE model in two experiments (Ecorys/CEPR 2017a: 22-24). All steps in the economic analysis necessarily face certain limitations, for instance due to data issues. In addition, the underlying assumptions and methodology of the CGE model can be considered problematic. These limitations and the methodological critique are described in detail below. However, the adequacy of the general approach on the “binding overhang” is analyzed in a first step.

2.3.1. Effects from an eliminated “binding overhang”

The general approach chosen by Ecorys/CEPR to quantify the impact of TiSA on a macro and sectoral level refers to the *elimination of the so called “binding overhang”*. It is assumed that commitments made in the GATS in 1994 are less liberal than actual policies in place some twenty years thereafter. Thus, it is argued that a binding commitment in TiSA of the current regulatory system would close the gap between bound commitments and actual market regulation and thus reduce policy uncertainty for investors, which would in turn lead to positive economic effects.

The rationale for a causal relation between policy certainty and positive effects on general macroeconomic conditions as well as on international trade is assumed with reference to economic literature, for instance theoretical and empirical papers by Rodrik (1991, 1992) and Baker, Bloom, and Davis (2016) on the negative impact of policy uncertainty on investment incentives and other macroeconomic effects. Moreover, the positive effects of policy binding via trade and investment agreements on macroeconomic variables is argued with reference to studies by Baldwin et al. (1997) and Francois (1997), which is even valid without the change of applied policies (Francois/Martin 2003). These studies assume (explicitly or implicitly) the rational behavior of investors (for instance Rodrik 1992) which “are in reality averse to risk”

⁸ Changes in Hong Kong are more pronounced than in other TiSA countries.

(Ecorys/CEPR 2017b: 11). It is further implied that stable policy regimes are not positive for economic development *per se* but require an optimal mix of policies based on good governance, macroeconomic stability, openness to trade and investment, market orientation, protection of property rights, and enforcement of contract law to foster economic development (François 1997).

The strictly positive relation from bound regulations to macroeconomic variables has however been challenged by the heterodox perspective, emphasizing (i) the importance of policy space in order to adopt national policies for catch-up economic development (Rodrik 2004), and (ii) the importance of retaining policy space in order to adapt to changing circumstances, also in the case of more developed countries (Stiglitz 2016). More generally, leading economists such as Dani Rodrik and Joseph Stiglitz have repeatedly criticized the isomorphism of the mainstream assumption that there exists only one set of optimal economic policies for all countries, the implementation of which should be facilitated by e.g. trade agreements (Rodrik 2012). Instead, economic policy must always be context-specific, which entails the importance of retaining sufficient policy autonomy. Thus, in the context of TiSA, for instance regulations on local content or local employment requirements, which are strongly contested in the negotiations, should not be abandoned prematurely (Kelsey 2017).

Moreover, a further assumption made under this approach in the SIA can be contested. In the TISA it is assumed that “governments are free to cut back on market access up to the binding without violating GATS commitments” (Ecorys/CEPR 2017a: 27). In reality, governments might be more reluctant to change regulations due to potential inconsistencies with bilateral or regional trade agreement, or the threat of being challenged before international arbitration under the dispute settlement provisions of already existing bilateral investments treaties. Thus, the actually existing policy uncertainty in a situation already characterized by a high degree of international obligations under a myriad of bilateral trade as well as investment treaties is arguably very limited. Moreover, the SIA implies that policy uncertainty has the same effects on trade in services independent of the mode of services delivery. It might however be reasonable to assume that cross-border trade (Mode 1) is less affected by policy uncertainty than services trade requiring commercial presence via FDI (Mode 3).

2.3.2. Estimating trade cost equivalents of the “binding overhang”

The major challenge in modelling the effects of a “binding overhang” is the estimation of trade costs associated with the gap between bound policy commitments under GATS and actual applied policies whose elimination can be included in CGE model simulations. For this purpose, a gravity model is applied in the SIA to capture the impact of policy uncertainty on trade flows.⁹ While the application of gravity models has emerged as the standard approach to compute ad valorem equivalents (AVEs) of non-tariff barriers of goods (Berden et al. 2009) and services (Fontagné et al. 2016), the gravity model here is not used to estimate the AVEs of current restrictions, but trade cost equivalents related to the binding overhang. Thus, the gravity regression in the SIA includes the standard independent variables (distance between trading partners, common colonial history, shared language, shared border) and two variables which are based on country-level Services Trade Restrictiveness Indices (STRI) produced by the World Bank (Borchert et al. 2012): (1) the STRI values associated with the binding overhang, i.e. the difference between the STRI values per sector and country between actual and GATS-bound regulation, and (2) AVE estimates derived from STRI values from the currently

⁹ The gravity equation applied in the SIA is derived from structural models (in the SIA case, the CGE model by Bekker et al. (2015) with a Eaton/Kortum trade structure), which allows for the simultaneous estimation of trade elasticities (estimated AVE coefficient) in a gravity regression including importer and exporter time-varying fixed effects (see for more details section 2.3.3.).

applied restrictions. The estimation with fixed effects yields effects of the applied trade restrictions on trade flows, which are related to the impact of the binding overhang in order to derive trade cost equivalents that capture the policy uncertainty (Ecorys/CEPR 2017b: 11-15).

The results derived in the gravity model depend on the input of STRIs and the thereof derived AVEs as well as on the applied trade data. As the gravity model is regressed on bilateral trade data from the Trade in Services Database¹⁰, this includes data on cross-border (Mode 1) and consumption abroad (Mode 2) trade flows only (Francois/Pindyuk 2013). Mode 3 transactions (trade through affiliates) as the most important mode of supply in services trade, accounting for 69% of extra-EU exports in 2013 (Rueda-Cantuche et al. 2016), is only partially represented in the data used given that cross-border services trade can also pass through affiliates (Francois/Pindyuk 2013: 2). The volume is not specified, however. Thus, the exclusion of a large share of services trade in the data might also affect the coefficients derived from the gravity model (Sáez et al. 2014: 86) (see also section 2.3.4. for further details on services trade data).

Services Trade Restrictiveness Index (STRI)

The STRI indices are calculated by the World Bank (Borchert et al. 2012) and published for 103 countries, 5 broad service industries, 18 service sectors and 3 modes of delivery (cross-border, commercial presence, presence of natural persons).¹¹ The database is compiled from a survey among local law firms familiar with the policy regime in developing and other non-OECD countries and other data sources in the case of OECD countries (WTO Trade Policy Reviews, Doha negotiations, Axco insurance database, etc.). Borchert et al. (2012) seek to compile all information on discriminatory barriers that exist in the specified sectors by mode at a specific point in time (2008-2010) and classify them by the degree of openness (completely open, completely closed, virtually open, virtually closed, intermediate). By assigning values from 0 (completely open) to one (completely closed) with intervals of 0.25 to each listed policy, an STRI by mode is calculated. The classification depends on the subjective valuation by the World Bank team. These specific indices can be aggregated to sectoral, broad industry, country and region level.¹² The underlying database refers to discriminatory policies and regulations only, for instance quantitative restrictions (limits to total number of providers), regulations on qualification and licensing requirements (professionals), or absence of regulation (regarding equal access to ports or telecommunication networks). These regulations can be sector-specific or applicable to all sectors (horizontal legislation), for instance labor laws stipulating minimum percentages for domestic employees. Importantly, the STRI has its limits, as acknowledged by Borchert et al. 2012. Thus, Mode 2 services trade (consumption abroad) accounting for 10% of global services trade is not covered which excludes services trade in tourism, education or healthcare. Other sectors such as business-processing services (for instance call centers), construction services (no movement of less skilled individuals) as well as IT and digital service (e-commerce, data services etc.) are not included in the STRI. This has important implications on the modelling of sectoral effects in the SIA as elaborated below.

Borchert et al. (2013) show that restrictiveness varies among rich and poor countries, and identify various sectoral patterns; for instance, retail, telecommunication and finance tend to be relatively open. As a whole, the authors classify most countries as fairly open, with a median index value of 24 (max. of 100), and index values below 50 for 90% of all countries, above which regulatory regimes are characterized by 'major restrictions'.

¹⁰ See: <http://data.worldbank.org/data-catalog/trade-in-services> (09/10/2017)

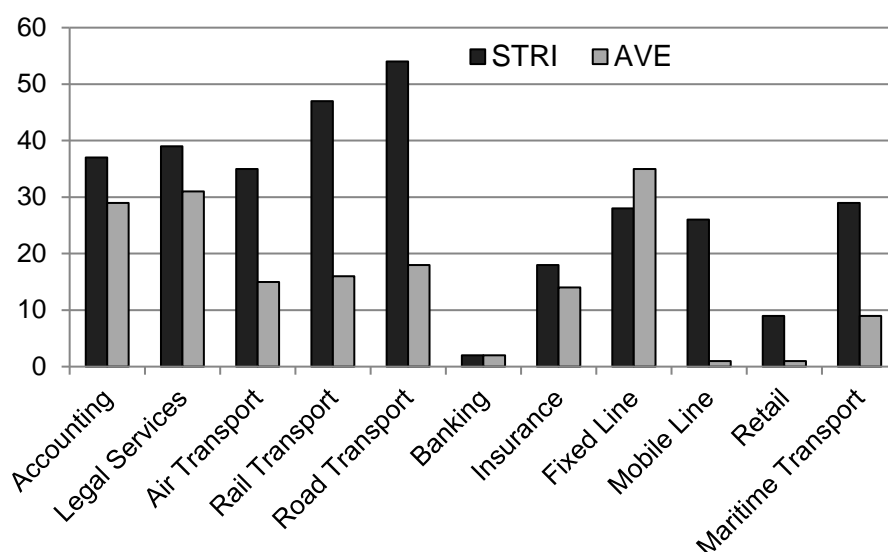
¹¹ See: <http://iresearch.worldbank.org/servicestrade> (09/10/2017)

¹² The applied weights relate to the share of modes in the service sectors (sector level), standardized shares in total services output for an „average“ industrialized country (country level) and simple averages (region).

Ad-Valorem Equivalents of the STRI

In the context of the World Bank project on the STRI, Jafari/Tarr (2014) provide data on the AVEs derived from the STRIs related to actual policies. Thus, they estimate the trade costs associated with the current regulatory framework as a share of the cost of delivery of services. Their methodology follows an approach by the Australian Productivity Commission (Findlay/Warren 2000) in which the impact of services restrictiveness on a measure of price or cost is estimated econometrically. The estimations are specified by sector. Consequently, the relation between index level and resulting AVE varies between the sectors as shown in Figure 1 for OECD and other EU countries. The methodology applied by Jafari/Tarr (2014) is however criticized due to the application of arbitrary weights, outdated data and approximations for the sectors road transportation and telecommunication (CEPS/WTI 2016).

Figure 1: Sectoral values for STRI and AVE



Note: STRI as index points; AVE as % of import value
Source: Jafari/Tarr (2014)

As a whole, the STRI and the related AVEs are a possible approach to estimate relative restrictions in trade in services. In particular the wide range of countries and the two reported indices for actual policies and GATS commitments make the World Bank database preferable for the application in the SIA compared to other restrictiveness indices, such as the OECD STRI (Gelaso Grosso et al. 2015). However, the approach applied by the World Bank STRI has its limitations, in particular by excluding Mode 2 services trade and certain sectors and due to the subjective classification and scoring of single policies with regard to their restrictiveness (Fontagné et al. 2016). In addition, it refers to discriminatory policies only, which excludes the impact of complementary regulation, such as competition regulation. Thus, the actual impact of discriminatory policies and the potential gains from market opening are uncertain (Borchert et al. 2013: 185). The AVEs derived from the World Bank STRIs have further limitations as shown above. Nevertheless, both data provide the determining input for the further estimations of trade costs associated with policy uncertainty in the SIA.

Estimation of regional and sectoral data in the SIA

As the World Bank STRI database is not fully compatible with the regional and sectoral structure given in the database for the CGE model, the derived trade cost equivalents require various adjustments before they can be applied in the CGE model.

Firstly, the STRI data for the single EU member states represent a mix of intra-EU and extra-EU restrictions to trade in services. As TiSA affects primarily extra-EU regulations, the original STRI values require modification. The reported external STRIs in Table A.3 (Ecorys/CEPR 2017b: 13) are close to the external STRIs reported by the World Bank under the aggregate EU20, which however covers not all EU member states.

Secondly, the gravity model in the SIA is based on total services trade data due to the lack of bilateral trade data on a sectoral basis (Ecorys/CEPR 2017b: 18). The overall coefficient estimates (per country) are therefore adjusted to sectors based on sector STRI data. The methodology applied is not elaborated in more detail. However, the necessary break-down from the aggregate to the sectoral level comes along with difficulties. The reported AVEs by country and sectors, scaled by current values of services traded (Table A.8 in Ecorys/CEPR 2017b) indicate that the same sectoral STRI overhangs in different countries result in the same AVE values, independent of the current level of restrictiveness. The bound and applied STRIs in the banking/financial sector in Australia, Japan and the USA for instance differ all by 15 index points which is equivalent to an 'overhang AVE' in the SIA of 6.5% in all three countries. This does not take into account the level of current STRIs, with Japan's financial sector STRI showing a value of 0 (=completely open), while the STRI in the same sector in Australia and USA amounts to 21.3. Thus, a potential 'de-liberalization' to less liberal GATS commitments from a very open to a mildly open system (from a STRI of 0 to 15 in Japan) has the same cost effect as a change from a mildly open to a stricter system (from a STRI of 21.3 to 36.3 in the USA). This assumed proportionality of trade costs is questionable. Alternatively, it might be argued that trade costs will not increase in linear monotonic fashion when moving from a situation of openness to one of restrictiveness, but that structural breaks, i.e. discrete increases in trade costs will occur (Benz 2017). This would be particularly the case with market access regulations. The assumption of linear monotony thus introduces a bias in the trade cost estimation.

Furthermore, the sectoral coverage in the STRI database cannot be directly mapped to the GTAP sectors applied in the CGE model. Thus, for ICT services¹³, construction and personal services, the average AVE values from the sectors available from the STRI database are applied. In addition, an important share of the communication sector in GTAP consists of postal services, however, the applied STRI in communication refers to telecommunication only. The AVEs are nevertheless applied for the whole sector. Given the limited availability and conformity of available data, various adoptions are necessary. In combination with methodological issues, the resulting trade cost reduction equivalents by sector and country should be interpreted with caution. These results are however the basic inputs into the CGE model.

2.3.3. CGE Model

The SIA applies a CGE model that follows the standard GTAP model to a large degree. The trade cost reductions derived from the gravity model, as described above, are implemented

¹³ ICT is not a separate sector in GTAP. Instead, the sector 54 'Other Business Services: real estate, renting and business activities' is split into computer services ("ICT services") and business and professional services (Ecorys/CEPR 2017a: 151).

via two experiments in the CGE model to derive macroeconomic and sectoral changes associated with the change in trade costs due to the elimination of policy uncertainty. The applied CGE model is however different to the standard GTAP model with regard to the modelling of trade. Here, the SIA follows Bekkers et al. (2015),¹⁴ who apply a micro-founded Eaton/Kortum (EK) (2002) structure instead of the commonly used Armington model.¹⁵ This has implications with regard to the estimation of trade parameters via the structural gravity model in contrast to the standard CGE model, as well as on the composition of the gains from trade, but not their total size (Arkolakis et al. 2012).

The standard GTAP CGE model incorporated a neo-classical model on the supply side and an Armington structure on the demand side (Lloyd/Zhang 2006). In an Armington structure, final and intermediate goods are differentiated by “nationality”. Thus, consumers see output in an industry produced domestically or imported from different countries as imperfect substitutes. Building on nested CES functions of consumer utility and the demand for intermediates and the supply side assumptions, a competitive equilibrium for a world market exists for a set of prices for products and factors satisfying all supply and demand conditions and clearing all markets (*ibid.*). The effects of trade liberalization in an Armington CGE depend crucially on the choice of Armington elasticities of substitution which need to be estimated exogenously (Hertel 2013). Thus, the sensitivity of trade to cost barriers depends on the consumer preferences reflecting the heterogeneity of goods in consumption (Eaton/Kortum 2002: 1750).¹⁶

Eaton/Kortum (2002) develop instead a general equilibrium model based upon the Ricardian model of trade with perfect competition. Thus, the continuum of goods and service produced in each country, determined by the cost of inputs and productivity – also known as comparative advantage – is seen as the driving factor for trade. Therefore, Head/Mayer (2013) classify the EK model as a supply-derivation of the gravity model, while the Armington model is a demand side derivation. The sensitivity of trade to cost adjustments depends on a technological dispersion parameter, which can be estimated via a structural gravity model consistent with the EK model.

Bekkers/Francois (2015) show that the current research frontier in international trade theory such as the Ethier/Krugman monopolistic competition model, the Melitz model with heterogeneous firms, and the EK model, can be incorporated in the standard CGE model as the basic Armington structure of trade can be modified to mimic modern trade theories. Most importantly, Bekkers/Francois (2015) underline that the EK model is equivalent to the Armington model except for the parameterization, as the EK model requires the estimation of a dispersion parameter (which replaces the preference parameter in the Armington model), a technological productivity parameter and total trade costs. Thus, the structural gravity model applied in the SIA allows for the estimations of “binding overhang” trade cost equivalents as well as the inference of trade elasticities. The latter is derived from the AVE coefficient in the SIA gravity model (Ecorys/CEPR 2017b: 14), while the technology parameter and total trade costs are inferred from actual import shares (following a methodology by Egger/Nigai (2016) as elaborated in Bekkers et al. (2015)).

The inclusion of an EK trade structure in a standard CGE model allows accounting for insights from trade theory beyond Armington. For instance, comparative advantage in production is

¹⁴ Please note that the SIA refers to the forthcoming paper of Bekkers et al. (2016) in *The Economic Journal*. We refer to the CPB Discussion Paper of 2015. The EK-GTAP model is also applied in CEPS/WTI (2016), there is however no reference to this paper in the SIA.

¹⁵ The SIA itself lacks a detailed description of the model and the implementation of the Eaton/Kortum structure. Thus it can only be assumed that all specificities (e.g. share of rent- and cost-generating iceberg trade costs, the modelling of a global savings-investment structure, etc.) are congruent with the model in Bekkers et al. (2015).

¹⁶ See also Taylor/von Arnim (2006) for a detailed discussion on the Armington assumptions

excluded in standard approaches, as products and prices of goods produced in different countries are disjoint and the number of goods produced in a country is fixed (Lloyds/Zhang 2006). Taking into account the possibility of specialization in production via an EK trade structure includes therefore gains from trade along the intensive as well as the extensive margin. However, Arkolakis et al. (2012) and Head/Mayer (2013) emphasize that a switch from an Armington model to an EK model changes the structural interpretation of trade elasticities as well as the composition of the gains from trade, but not their total size in a general equilibrium set-up (Arkolakis et al. 2012: 109). Bekkers/Francois (2015) do not show any simulation results for their EK specification, thus claims on potentially different effects compared to the standard GTAP model cannot be made here.

Beyond the EK trade structure, the GTAP model remains unchanged. The key assumptions of the models include (i) full employment of factors, including labor, (ii) price clearing markets and (iii) a constant government balance. It is important to emphasize that these assumptions are unrealistic. In consequence, these models cannot speak to aggregate employment, aggregate demand or fiscal effects of trade policy changes. Rather, the respective reports highlight microeconomic modeling detail. These concerns do not, however, matter for results nearly as much as the implicit macroeconomic structures: With models that feature full employment, trade liberalization tends to produce positive – though small – gains in GDP. The SIA does not consider alternative modeling approaches that could provide a robustness check on these results and inform on key macroeconomic issues, nor a sensitivity analysis on the crucial parameters applied in the model. A detailed critique on the standard CGE model is provided in Raza et al. (2014).

In addition, the model applied in the SIA includes long-run capital accumulation, which typically boosts gains from trade further (see for instance our critique of the models used for impact assessment of CETA in Raza et al. 2016). However, these results rely on a controversial chain of causation – the so-called “Ramsey-structure” – as it is assumed that growing income from exports leads to higher overall savings, which in turn creates investment and higher capital stocks. According to Bekkers et al. (2015: 12) a global bank accumulates savings from all countries and channels them into investments in different countries according to the respective rates of return. However, this relation is only valid if full employment is assumed. In this sense, the ‘Ramsey structure’ compounds the problematic assumptions of price-clearing markets (see Raza et al. 2016 for more details).

The model structure and the resulting effects concern only the long run. Possible adverse effects in the short to medium run are neglected. As shown for the example of social effects in section 2.2., the assumption of full employment necessarily implies that jobs can simply be ‘displaced’ from negatively affected sectors to benefiting industries. This excludes necessary adjustment-costs, for instance for short-term unemployment benefits or retraining. In addition, it is widely recognized that adjustment costs are distributed unequally as certain individuals or groups, for instance older and less skilled workers in manufacturing bear a substantial burden of trade-related adjustments (OECD 2005). Autor et al. (2016) show for the case of the US, that adjustments in labor markets are remarkably slow after a trade shock leading to depressed wages and labor force participation as well as elevated unemployment rates. For the case of NAFTA, Hakobyan/McLaren (2016) also find evidence that wage growth in import competing US sectors and localities has been depressed for blue-collar workers as well as for service-sector workers in the affected localities. A simple hint towards positive long-term effects understates the need for policy measures to mitigate the risk of long-term wage and employment losses for specific groups and individuals.

2.3.4. Data issues with respect to trade in services

Similar to the limitations on services trade data in the gravity model (section 2.3.1), the CGE model uses the GTAP 9 database which is a “global dataset for modelling cross-border trade in services” (Ecorys/CEPR 2017a: 30). Thus, the data included in the GTAP database covers trade in services supplied through the modes 1, 2 and 4 and therefore do not comprise the full scope of trade in services affected by TiSA.

Based on the structure of GATS, TiSA concerns international trade which takes place through for modes of supply (WTO 2012: 2):

- Mode 1: cross-border supply, only the service crosses the border, e.g. in the case of electronic commerce;
- Mode 2: consumption abroad, occurs when services are consumed outside the country, e.g. in the case of tourism;
- Mode 3: the service supplier establishes its commercial presence in another country through e.g. branches or subsidiaries; and
- Mode 4: presence of natural persons, occurs when an individual has moved temporarily into the territory of the consumer in order to deliver the service, whether on a self-employed basis or as an employee of a foreign supplier.

The largest share of international services trade takes place through Mode 3 (55%), followed by Mode 1 (30%), Mode 2 (10%) and Mode 4 (5%) (WTO Secretariat cited in Ecorys/CEPS 2017a: 29). A recent effort by DG Trade and Eurostat (Rueda-Cantuche et al. 2016) reveals that extra-EU exports in services are dominated by Mode 3 trade with a share of 69%.¹⁷ Thus, the data applied in the CGE model do not cover a large share of services trade, as represented by the most important mode of supply.

The main data sources for cross-border trade in services are Balance of Payment (BOP) statistics, which are typically available for a large set of countries. As the BOP uses the concept of residence with regard to the center of predominant economic interest, the statistics include only transactions between residents and non-residents (WTO 2012). In contrast, Mode 3 services trade refers to the activities of foreign affiliates within a country. Thus, data on Mode 3 transactions would ideally require globally consistent foreign affiliates trade statistics (FATS) which reflect the sales or output by foreign controlled companies. As there is a significant lack on FATS data (Rueda-Cantuche et al. 2016), FDI flows might be used as an approximation to estimate Mode 3 services trade.

With regard to CGE models, this implies that the applied simulation exercises should at least include FDI data in order to make claims on the effects of reduced trade costs on Mode 3 services trade flows. CGE models which include FDI data are for instance the FTAP by Hanslow et al. (2000). Ecorys/CEPR (2017a: 31) points however to the limitations of these data – in particular FATS – and therefore excludes the modelling and estimations of Mode 3 and 4 in the quantitative part of the SIA.¹⁸ Therefore, the validity of the claims made by the SIA is potentially limited as the most important mode of supply in services trade is not included (see also EC 2017 on this issue). Most importantly, even if Mode 3 flows could be included, the macroeconomic effects of TiSA would still be relatively small in the set-up applied in the SIA.

¹⁷ The remaining extra-EU trade is supplied by Mode 1 (21%), Mode 2 (6%) and Mode 4 (4%).

¹⁸ A qualitative case study deals with FDI effects on employment in Mexico, however (Ecorys/CEPR 2017a: 83-88).

2.4. Conclusions

The main conclusions of our assessment of the Ecorys/CEPR SIA study can be summarized as follows:

- 1) **Economic effects are positive, but insignificant:** The economic effects reported are miniscule and do not make for a convincing economic case for concluding TiSA. Real income in the EU is expected to increase by 0.1%, exports by 0.2%. The weighted average for all 23 participating countries is 0.05% for real income and 0.4% for exports. This magnitude of effects is close to statistical insignificance. In the case of the EU, it would mean a one-time increase of the level of real income of EUR 17 for every EU citizen, or of EUR 2.5 per year during the implementation period until 2025.
- 2) **Economic case for TiSA rests upon unrealistic key assumption:** The economic case made in the SIA for the benefits of TiSA rests entirely on the assumption, that the difference between the level of services trade liberalization committed under the GATS in 1994 and the current level of services trade liberalization – i.e. the binding overhang – constitutes a source of uncertainty for economic agents, the elimination of which via TiSA would enhance business confidence and thus trigger more trade, investment and growth. However, given the multitude of GATS-plus bilateral trade and investment agreements concluded in the last three decades by the parties to the agreement, in particular the EU, the probability of governments deliberately cutting back on the level of services trade liberalization is very small.
- 3) **Chosen methodology unable to capture important economic effects:** The methodology applied by the SIA falls short of capturing the multitude of potential effects from the agreement. This owes in particular to the following: (i) the decision to focus on the effects of closing the binding overhang falls short of taking into account the effects of new services trade liberalization, to which the parties to the agreement have committed; moreover, this approach is not able to address the effects of TiSA due to new liberalization measures, e.g. via the envisaged “enhanced regulatory disciplines” on domestic regulation; (ii) Mode 3 (commercial presence), with some 60% the most important element of global services trade, has been excluded from the scope of the SIA, supposedly due to data limitations; (iii) even for the modes of delivery covered, the methodology has to rely on various simplifications and ad-hoc adjustments, in particular with respect to the estimation of AVEs, which negatively impinge on the robustness of results.

A major shortcoming of the existing methodological framework applied by impact assessments, to which the TiSA SIA is no exception, relates to the one-sidedness with which it treats the economic characteristics of regulation. As already noted in the introductory chapter, regulation is by definition a two-pronged phenomenon. It both confers costs and benefits upon society. The former come in the form of compliance costs, which mostly, but not exclusively, affect companies insofar as they make productive activities more expensive. The latter accrue to society at large, insofar as they help to forestall harm from society, for instance by restricting the use of toxic chemicals, or directly confer a benefit, e.g. by increasing the quality of a product or service. Research has shown that the positive externalities generated by regulation greatly exceed their costs (see e.g. Ackermann 2008; Myant/O'Brien 2014). These insights notwithstanding, the empirical trade literature continues to consider the cost side of regulation only, which is hence conceptualized as a non-tariff barrier to trade. In contrast, an approach is necessary which systematically includes the social benefits of regulation in the assessment of the economic effects of trade liberalization. In the following, we will focus on proposing an alternative conceptualization of the economic role of regulation, which takes into account the multidimensionality of its economic and social effects.

3. REGULATION IN CONVENTIONAL TRADE ANALYSIS

Trade economists have been aware of the importance of NTMs for a long time. But as long as trade liberalization was largely confined to tariff reduction, the analytical treatment of NTMs was of no particular concern. With the significant decline of tariffs over the last decades and the gradual shift in trade negotiations towards technical and sanitary standards and regulation more generally, the effects of NTMs on trade flows have become a growing area of interest in research. This is particularly true with regard to trade in services given that these trade flows are intimately linked to regulatory issues.

Over the last two decades a broad literature has emerged which provides various approaches to quantify the economic importance of regulatory measures for trade flows and welfare.¹⁹ Although it is well documented that these measures affect trade, the direction and magnitude to which they do so is less well understood (Abbyad/Herman 2017). Most importantly, NTMs cannot be easily compared to tariffs as they serve other purposes, such as social and environmental goals and potentially have trade enabling effects. Nevertheless, NTMs are conceptualized in the conventional trade analysis as a cost to trade, i.e. as an element that is a restriction to trade.

In general terms, the analytical work on NTMs includes measures of NTMs, methodologies to quantify NTMs as well as approaches to quantify the effects of changes to NTMs on trade and welfare. A first element of the analytical work focuses on the NTM indices and measures on the incidence of NTMs. These measures serve to gather information on the existence of regulatory measures which potentially restrict trade in their simple version, such as inventory measures. More elaborated measures, such as the Services Trade Restrictiveness Indexes (STRI) of the World Bank (see also section 2.3), aim to score and classify selected NTMs with regard to the magnitude of these effects on trade. A second element of research is concerned with the quantification of NTMs in terms of ad-valorem equivalents (AVEs) by analyzing quantity, price or value gaps in services trade flows. These quantifications are largely based on gravity model estimations for which a variety of estimation techniques has been elaborated in recent years and which infer AVE either indirectly from 'unobservables' or directly from NTM indices.

These two elements of the analytical work on NTMs permit for cross-country comparisons of differing NTMs and types of NTMs and simple analysis of trade effects, but not for impact assessments of comprehensive trade and welfare effects derived from changes in regulatory measures as intended in trade negotiations. However, AVEs are essential inputs to general equilibrium models in order to derive these effects which constitute the third element of the analytical framework on NTMs. It will be shown in this section that estimations of AVEs differ significantly throughout the literature which consequently has a large impact on estimated welfare effects of NTM liberalization scenarios. The focus in conventional trade analysis on the strict link between foregone trade caused by trade costs and welfare improvements excludes the multi-dimensional aspects of regulation. By dismissing potential trade- and welfare enhancing effects of regulatory measures and desired environmental, equity and social outcomes, standard approaches to NTMs risk however to misguide trade negotiators or policymakers about the impacts of the NTMs at stake.

¹⁹ Various authors differentiate between the terms 'NTMs' (non-tariff measures) and 'NTBs' (non-tariff barriers). The first term refers to all regulatory measures, independent of their intended trade effects (Berden/Francois 2015). In contrast, NTBs refer to measures that exist for the purpose of restricting trade or may restrict trade more than necessary for the fulfillment of the desired social function, which are therefore not compatible with the WTO charter (SPS or TBT measures, exemptions or carve-outs in GATS) (Abbyad/Herman 2017: 3; Berden/Francois 2015).

3.1. Empirical methods to assess the impact of service trade regulations

Generally, various methodologies are applied to analyze and quantify NTMs and their effects on trade and welfare which are partially interconnected, as results in one group of analytical tools are used or even required as inputs for methods applied in other parts of the standard approaches to NTMs in trade. This is particularly important for estimations of the AVEs of NTMs – which are the focus of the following discussion – applied in CGE models in order to estimate the impact of changes to regulatory measures agreed in FTAs.

Measures of NTMs based on incidences

The first group of analytical tools derives information from the incidence of regulatory measures which can serve as an input for the quantification of NTMs in terms of AVEs. Indicators such as frequency indices, which capture the percentage of products or services subject to one or more NTMs, or coverage ratios, which show the percentage of trade value subject to one or more NTMs, offer instruments that can be derived, compared and interpreted with relative ease (UNCTAD 2013). More elaborated measures are based on the construction of restrictiveness indices by scoring NTMs with respect to the magnitude of their expected trade effects and by classifying NTMs in terms of mode of supply or by nature of restriction. Examples are the STRIs by the World Bank as elaborated in section 2.3 and the indices constructed by the OECD (Geloso Grosso et al. 2015). While the latter approach offers STRI data by sector for 44 countries and 18 sectors and includes regulatory measures such as barriers to competition and regulatory transparency in addition to discriminatory regulatory measures, the World Bank STRIs are available for 103 countries and 18 sectors and focus on discriminatory measures only.

This class of NTM measures allows for a NTM-specific and disaggregated (on a product or sectoral level) inventory analysis, cross-country comparisons and, if available, for an analysis of changes over time. However, these indicators have no “obvious economic meaning” (Fontagné et al. 2016: 3) and give no direct information about the possible impact on price and quantities traded, produced or consumed. Therefore empirical analyses are required to associate them with trade flows (Van der Mare/Sheperd 2013; Nordås/Rouzet 2017) or trade costs, as described below. Most importantly, the selection of regulatory measures (simple indices) and the process of weighing (STRIs) are influenced by subjective judgement. As these measures are used as inputs by various approaches to derive AVEs of NTMs, they influence estimated NTM quantifications and in turn changes to welfare due to changes in NTM trade costs.

Quantification of NTMs as AVEs

The second element in the analysis of NTMs focuses on the quantification of NTMs in terms of AVEs. Trade costs associated with NTMs are expressed as tariffs that would yield the same effect as these regulatory measures. The different approaches typically analyze quantity, price or value gaps in trade flows (Abbyad/Herman 2017). Gravity model estimations have emerged as the most commonly applied empirical tool to quantify the trade costs of NTMs (Sáez et al. 2014). In general, the gravity model explains bilateral trade flows by a combination of factors that serve as attractors to trade – most notably the size of an economy as measured by GDP, and factors that make trade more difficult – most notably geographic distance, language or culture. As gravity analysis takes these explanatory factors to trade flows into account, it is assumed to be a well-suited methodology to analyze the effects of NTMs on trade flows.

There are several strategies to estimate trade costs of NTMs in the framework of the gravity approach. Trade costs associated with regulations are either inferred indirectly from ‘unobservable’, i.e. from the residuals or fixed effects of the gravity estimations or directly by observable data or proxy variables on trade cost elements such as STRI indices (Chen/Novy 2012). The first approach uses the gravity model to derive the difference between what trade flows “should be” and observed flows (Francois/Hoekmann 2010). The extent to which the presence of NTMs distorts trade flows compared to a ‘free trade environment’ allows then to derive AVE trade costs. The direct approach uses explicit (binary NTM variables, frequency indices, coverage ratios or NTM-indices) or implicit (regional agreements, case studies or surveys) measures of NTMs in econometric estimations. The application of gravity models and the econometric methods have evolved dynamically in recent years and are increasingly applied for trade in services.²⁰

Several studies report trade cost estimates for services based on gravity model estimates. Given that most applications use GTAP data, this allows for a comparison of the sectoral results on AVEs from selected studies for the case of the EU. All studies apply different strategies to estimate the gravity models for instance by including different NTM-indices, which – inter alia – leads to a wide range in reported outcomes. Given that these estimated AVEs are applied as inputs in CGE models, which in turn influences estimated welfare impacts from trade liberalization, it is crucial to show the limitations of the single strategies (see for instance Berden/Francois 2015 for details) but also of the application of the gravity approach more generally in the conventional trade analysis.

Table 3: Summary of NTM quantification results for the EU

Services	Berden et al. (2009)	Egger et al. (2015)*	Fontagné et al. (2016)**	CEPS/WTI (2016)*
Air transport		25.0		27.3
Communication	1.7	1.1	48.1	3.0
Construction	2.5	4.6	45.3	16.0
Distribution		1.4		2.7
Financials (banking)	31.7	1.5	63.5	3.3
ICT	3.9			44.5
Insurance	19.1	6.6	33.5	22.1
Maritime transport		1.7	70.2	13.5
Other business	3.9	35.4	127.6	44.5
Other transport		29.7		
Pers., recreational	2.5			18.4
Trade			47.8	
Transport			28.3	42.4
Travel				
Public services			26.9	14.4
All services (simple avg.)	9.3	11.9	54.6	21.0

* based on Jafari/Tarr (2015) **AVEs refer to simple averages of all EU member states

Sources: Berden et al. (2009), Egger et al. (2015), Fontagné et al. (2016) and CEPS/WTI (2016). See also Berden/Francois (2015) for an overview including NTM-AVEs on goods sectors.

²⁰ See e.g. De Benedictis/Taglioni (2011) and Head/Mayer (2014) on the historical roots of the gravity model and the evolution of the approach and its microeconomic foundations; see further UN ESCAP (2012) for the advances in econometric methods applied to estimate gravity models.

Table 3 provides a summary of NTM quantification reported in four selected studies. This includes AVE data applied in Egger et al. (2015) and CEPS/WTI (2016), which are both derived from Jafari/Tarr (2014), but specified for a sectoral breakdown, with more sector details reported in CEPS/WTI (2016).²¹ These data are also applied in an aggregated form in the SIA by Ecorys/CEPR (2017a) (see section 2.3.2.). The simple average of AVEs in all service sectors ranges from 8.5% to 54.6%.²² AVEs for EU-imports differ significantly across service sectors – within the single studies and across studies. For instance, Berden et al. (2009) report the lowest AVE for communication services (1.7%) and the highest for financial services (31.7%). For the latter sector, estimates of the other reports range from 1.5% (Egger et al. 2015) to 63.5% (Fontagné et al. 2016). Further, AVEs in services sectors are not necessarily higher than NTMs in goods agricultural and industrial sectors. For instance, CEPS/WTI (2016) reports that trade weighted AVEs in goods add up to 22.8%.

Other studies on NTMs in services trade include a study by Hufbauer et al. (2010), which is presented in various publications by the European Parliament on TiSA (see for instance EP 2016a). In this report, AVEs of NTMs are derived via an indirect method (Hufbauer et al. (2010: 121) and range from 0% in Norway (as a benchmark country) to 68% in Pakistan. The tariff equivalent for the EU amounts to 6.7% in this study. Further, Benz (2017) estimates AVEs in services based on STRIs by the OECD and reports AVEs which lie between 150% and 2016% for courier services, between 118% and 1246% for commercial banking services, between 51% and 299% for telecommunication services and between 33% and 159% for construction services, depending on the underlying import demand elasticity.

This wide variety of reported outcomes for trade costs in services sectors can be attributed to some degree to the applied methodology. Berden et al. (2009) apply a direct method by including an NTM-index based on a survey conducted among business managers and industry experts. This restrictiveness index is based upon NTM incidences identified by survey participants given the broad definition of NTMs covering “*all non-price and non-quantity restrictions on trade [...]. This includes border measures (customs procedures, etc.) as well as behind-the-border measures flowing from domestic laws, regulations and practices...*” (Berden et al. 2009: xiii; see also Raza et al. 2014 for more details). Egger et al. (2015) and CEPS/WTI (2016) refer to Jafari/Tarr (2014) for their AVEs in service sectors which use a price-based gravity model for their estimations (see also section 2.3.2. for more details).

Fontagné et al. (2011, 2016) estimate trade costs for nine service sectors in 117 countries, among them 27 EU countries, for 2004, 2007 and 2011 data by applying an indirect gravity approach. The gravity model is estimated with fixed effects as multilateral resistance terms and does not use STRI or other NTM-indices in their estimation.²³ This indirect method requires the comparison between a ‘free trade environment’ and the observed trade flows to derive trade cost equivalents. As the ‘free trade’ scenario is not observable, Fontagné et al. (2016) infer the AVEs via the comparison of inward multilateral resistance terms relative to a benchmark country which represents the most ‘open’ country in a specific set of countries.²⁴ Hufbauer et al. (2010: 121) also use an indirect approach with fixed estimations but report

²¹ Egger et al. (2015) and CEPS/WTI (2016) focus on the estimation of NTMs on goods rather than on services. Despite the same source of AVEs in Jafari/Tarr (2014), the reported sectoral AVEs differ in magnitude and sectoral coverage as both studies analyze different FTAs.

²² Trade weighted averages are only available for Berden et al.(2009), Egger et al. (2015) and CEPS/WTI (2016) and amount to 8.5%, 12.8% and 21%, respectively.

²³ The use of multilateral resistance terms has been prominently introduced by Anderson/von Wincoop (2004). Raza et al. (2014) discuss the limitations of this approach in more detail.

²⁴ Fontagné (2011) include Hong Kong, China, Belgium, Austria, Singapore, Ireland, Mexico and Greece, depending on the sector in question (Benz 2017).

significantly lower AVEs for the EU compared to Fontagné et al. (2016) indicating that AVE results are very sensitive to the applied methodology.

Strengths and Limitations of Gravity Model approaches

All applied methodologies to infer AVEs of NTMs via gravity models have specific strengths and weaknesses. The indirect approach, which derives trade costs of NTMs from ‘unobservables’ and by the comparison with relative open countries and sectors are less data demanding and simpler to update, as they do not rely on STRI estimates per sector and country (Fontagné 2016: 4). However trade costs for services in a sector cannot be differentiated into political or natural trade barriers with these indirect gravity estimates (Benz 2017). Direct approaches to the gravity model with detailed STRIs or other NTM-indices allow in principle to link AVEs to a specific set of policies and regulations.²⁵ This requires however the availability of STRIs which largely depend on what regulations are included, how these regulations are scored and how these scores are weighted in forming these indices (Fontagné 2016).

Beyond the potential influence of applied data (cross-sectoral or panel, base year, sectoral or aggregated) on AVE estimates, Benz (2017) and Abbyad/Herman (2017) emphasize the role of import demand elasticities which are partially required to calculate AVEs. In most cases these elasticities range from -4 to -5, with values closer to zero causing higher AVE estimates. Benz (2017) provides therefore estimates with different import demand elasticities from -1.5 to -5, which results in a wide spread of reported AVEs per sector. The importance of import demand elasticities was also emphasized by Anderson/van Wincoop (2004) (see also Raza et al. 2014 for a detailed discussion).

More generally, most applied gravity models to estimate AVEs of NTMs perceive NTMs only as barriers to trade that involve costs for producers and consumers and thus cause efficiency losses.²⁶ However, regulations can also have trade-enhancing effects. The intuition behind this idea is that certain standards and regulations such as quality or fair trade certifications in goods trade or data protection rules in services trade address consumer concerns in the importing country with respect to health, environmental and safety issues. Standards and regulations therefore enable or facilitate the decision to consume a certain imported product or service in the first place. With regard to trade in goods, Bratt (2014) and Beghin et al. (2014) estimate that about 46% and 39%, respectively, of HS product lines affected by NTMs exhibit net trade facilitating effects from technical measures (see also section 4.5.). Ghodsi et al. (2017) apply a gravity model on the product level and show that positive demand effects from sanitary and phytosanitary standards (SPS) compensate for the negative impacts on supply side costs. In services trade, Gooris/Mitaritonna (2015) show that regulations with minor restrictions stimulate trade flows in the other business services sector. Thus, gravity models with more disaggregated NTM data potentially allow for a more enhanced understanding of the direction and magnitude to which NTMs affect trade.

More importantly, the specificity of trade in services, in particular the different modes of supply, challenge the applicability of the gravity model on these trade flows. The use of services trade data refers largely to Modes 1, 2 and 4 trade flows captured in balance of payment statistics, while excluding the dominant Mode 3 flows associated with commercial presence and FDI (see also 2.3.4.). Gravity analysis therefore captures only a part of services trade. Moreover, the measurement of services trade flows in the balance of payments refers to the measurement

²⁵ These links are however only available on a sectoral level and not for specific products or services (Berden/Francois 2015)

²⁶ For instance, Kee et al. (2009) set AVE estimations to be non-negative by construction.

of financial transactions which potentially suffer from inconsistent representation of international services flows (for instance due to different contractual relationships between firms) (Benz 2017). In addition, gravity analysis cannot take into account intermodal substitution effects. For instance, NTMs affecting cross-border trade (Mode 1) might be circumvented by a switch to Mode 3 flows which potentially balances negative impacts in one mode of supply. Moreover, high fixed costs of market entry/establishment for instance in telecommunication would not be captured by the concept of tariff equivalents (WTO 2012).

Welfare effects from the reduction of NTM trade costs

These important limitations of the gravity model approach due to methodological, econometrical and data challenges with regard to trade in services suggests caution with respect to AVE estimates. Nevertheless, the trade costs associated with regulatory measures are a crucial input to CGE models. This third element of the analysis of NTMs enables the simulation of effects from the reduction of trade costs as a result of a trade agreement. The selected AVE estimates presented in Table 3 have been largely applied to impact assessments of a potential EU-US trade agreement (TTIP) (see Berden/Francois (2015: 22) for an overview).

Conventional CGE models generally produce positive welfare effects from the reduction of trade costs, given their underlying structure and assumptions (see Raza et al. 2014; Raza et al. 2016 and section 2.3.2. for a discussion of these CGE model specifications). The absolute level of AVEs of NTMs and the actionability of NTMs – the part of bilateral NTM costs that can be removed in an FTA – are therefore decisive factors for welfare effects derived in CGE models. The wide range of AVE estimates for services trade – as presented in Table 3 – affect the results of these impact assessments with regard to their magnitude and their composition. For instance, while Fontagné et al. (2013) predict that 80% of total value added gains from TTIP liberalization occur in services sectors, Ecorys (2017: 19) reports that only 6% of the TTIP impact on GDP is derived from changes in services NTMs.

Further, the degree of actionability influences the reported outcomes of CGE models. Berden et al. (2009) introduced a widely accepted definition and measure of ‘actionability’ as “the degree to which an NTM or regulatory divergence can potentially be reduced (through various methods) by 2018, *given that the political will exists to address the divergence identified*” (Berden et al. 2009: 15, emphasis added). Actionability thus depends on political will, which is however assumed as given. In political reality, actionability will however depend on a political process that will ultimately not be determined by some technocratic rationality, but by the prevailing power relations between economic and political agents.

3.2. Conclusions

In sum, when dealing with regulation the conventional trade analysis focuses largely on the foregone trade caused by trade costs. The methodologies and tools to quantify these trade costs associated with regulatory measures are however still evolving and the disparate results reported by various studies suggest a heavy dose of caution, given that impact assessments aim to support policymakers and trade negotiations. Most importantly, the simplified link between the removal of NTM costs and the ensuing welfare gains in CGE model simulations excludes the analysis of benefits of regulation and its potential impact on welfare. The interdependency of the different elements applied in the conventional analytical work on NTMs, which all see NTMs as a cost to business, strengthens these limitations further. As Beghin et al. (2012: 360) write: “*The message remains that when market imperfections are present, the interface between NTMs, trade and welfare is more complex than the simple dominant mercantilist message.*” Thus, a proper treatment of NTMs in trade impact assessments would call

for an analysis of both costs and benefits of NTMs for society. This finding is even more relevant, given that rationales to regulation are not limited to economic factors, such as the correction of market failures mentioned by Beghin et al. (2012), but also include non-economic objectives such as social or environmental goals. In other words, in addition to the cost savings for businesses, the consequences of a NTM removal or alignment for the social benefits that this NTM has so far conferred upon society have to be investigated as well.

This issue is relevant across a wide range of technical standards and regulations on goods dealing with highly sensitive public policy areas such as food safety standards, health standards or environmental regulations, but is particularly pertinent in the case of services, which are affected by a wide range of regulations, including domestic regulation. Given the broad scope of the new generation trade agreements such as TiSA, it should thus come as no surprise that civil society organizations and social movements have become increasingly concerned about the implications of the new FTAs on social welfare.

4. THE BENEFITS OF REGULATION

4.1. Introduction

Trade in services, far more than trade in goods, is affected by a multitude of domestic regulations. Given the variety in services sectors and modes of supply, these regulations range from qualification and licensing requirements and procedures in professional services, pro-competitive regulation in telecommunications and other network services, to universal access requirements in health and education services. Therefore, the principal barriers to international trade in services which TiSA targets are national, state and local government regulations.

The fundamental question is therefore ‘why regulate?’ – or in other words, ‘what are the benefits and costs of regulation for a society and how do they interact with trade in services?’ As we have seen in the previous section, conventional trade analysis abstracts from these questions and looks at the costs of regulations to trade only. The omission of the benefits of regulations is usually justified with the claim that trade liberalization will leave the quality of domestic regulations unchanged. Regulatory alignment due to trade liberalization will thus only result in cost savings to business, but not affect the ability of a regulation to pursue a particular policy objective. At closer inspection, this claim does however not stand up to scrutiny. Regulatory alignment can technically be achieved through (i) harmonization, (ii) mutual recognition, (iii) recognition of equivalence, or (iv) regulatory simplification as e.g. included in the CETA agreement. The harmonization of different standards will lead to a change in regulation for at least one of the trade partners. Mutual recognition of diverging standards bears the risk of triggering regulatory arbitrage, which will at the end of the day lead to a lowering of standards for at least one trading partner, while unilateral recognition of equivalence of a foreign standard also bears the risk of regulatory change, though not necessarily of a leveling-down of regulatory quality, if the foreign standard is of higher quality. Finally, regulatory simplification is a policy promoted by the OECD (e.g. OECD 2010) and the European Commission by way of initiatives such as the Better Regulation Agenda (EC 2015a) and the Regulatory Fitness and Performance Programme (REFIT) (EC 2012) that explicitly aim at ‘cutting red tape’, i.e. that want to reduce administrative regulations considered excessively burdensome to business. However, critics have repeatedly expressed concern with respect to the deregulatory bias of these initiatives as they have not adequately taken into account the social benefits of scrutinized regulations and have as a consequence both challenged existing environmental, labor and consumer protection regulations or blocked new regulations in these and related fields.²⁷

In consequence, both in the internal EU debate as well as in the trade policy discussion, the mainstream approach has tended to see regulation primarily as an impediment to economic competitiveness that needed to be disciplined as far as possible. This view has been theoretically supported for a long time by public choice economics, which pervasively argued against the possibility of regulation in the public interest (Prosser 2006). In consequence, the case for regulation became increasingly circumscribed to a limited number of market failures that were accepted as legitimate economic rationales for regulation (e.g. Ogus 1994, Baldwin et al. 2012). In the remainder of this section, departing from a discussion of market failure as the standard rationale for regulation (4.2), the following two sections (4.3, 4.4.) will then discuss trust and regulatory diversity as alternative economic rationales for regulation that in particular call for a balanced approach to regulatory alignment in trade agreements. Chapter 4.5 will demonstrate that even in mainstream economic analysis there exists empirical work that shows the benefits of regulation (4.5.1), though we will show that the standard cost-benefit approach falls short of comprehensively assessing important aspects of regulation. Upon the

²⁷ See e.g. the assessment of DGB at <http://en.dgb.de/++co++473dbfbc-d560-11e5-ac5d-52540023ef1a> or the studies by Myant and O'Brien (2015), Vogel and van den Abeele (2010).

basis of a methodological critique of the standard approach, we will then propose an alternative and in our judgement preferable approach to regulatory impact assessment (4.5.2.)

4.2. The Rationale for Regulation

Regulation in services is pervasive and driven by both economic and non-economic rationales. In the mainstream literature, market failures are the paradigmatic justification for economic regulation. Market failures come in a variety of different forms, which typically have to do with externalities, monopolies, information asymmetries or coordination failures. Table 4 provides illustrations for market failures in the services sector and typical regulatory interventions used as a remedy. While market failures do address important regulatory objectives, their scope for legitimizing the broad set of regulatory objectives prevalent in modern market societies remains nevertheless limited.

Various other regulatory objectives relating both to the economic and non-economic realm can be cited in this respect. Again, Table 5 provides an overview of non-economic regulatory objectives and associated types of intervention pertinent for the services sector.

While most standard economics publications acknowledge a number of non-economic rationales for regulation (see e.g. Ogus 1994, Baldwin et al. 2012), “the question ‘why regulate’ is nearly always answered in terms of the correction of market failures with the occasional note to distribution or other ancillary aims” (Black 2002: 7). This limitation is however inadequate to explain or justify normatively the range of regulatory tasks undertaken in modern societies (Prosser 2006). Thus, by limiting the justification for regulation to market failures, regulation is always perceived as a second-best solution compared to a market-based outcome. In addition, the standard literature is typically characterized by a certain mistrust with respect to non-economic justifications of regulation, and considers these essentially as arbitrary political decisions not corroborated by any robust substantive principle (ibid.).

Table 4: Examples of market failures and regulatory interventions in services

Type of market failure	Policy goal	Type of Intervention		Services sectors affected
		Market Access	Operation	
Monopolies	Maintain or restore competition;	Approval of mergers	Prohibition of collusion, price-fixing, etc.	Transport; Retail distribution; Telecommunication
Natural Monopolies	Prevent abuse of monopolistic position	Mitigate entry barriers	Price controls, universal access requirements	Rail transport; Telecommunication
Externalities (negative)	Internalize full costs of production / consumption	Entry control: licensing, geographical restrictions	Standards (targets/specifications), penalties	Air and road transport
Externalities (positive)	Share benefits of activities	Direct provision of services by state	Subsidies	National security services; Education; R&D
Unequal bargaining power	Protect vulnerable groups/interests		Health and labor standards	All sectors
Asymmetric information	Inform actors with limited access to information	Entry control: licensing, certification	Disclosure, standards (specifications)	Financial services, Professional services; Telecommunication
Coordination problems	Avoid high transaction costs		Standards (specifications)	Transport; Telecommunication
Instability	Prevent collapse of markets	Entry control: licensing, certification	Limitations to risk exposure; safety buffers; standards	Financial services

Source: own elaboration based on Molinuevo/Sáez (2014: 14) and Baldwin et al. (2012)

Table 5: Non-economic regulatory objectives and interventions in services

Rationale	Policy goal	Type of Intervention		Services sectors affected
		Market Access	Operation	
Distributional Justice	Achieve socially just outcomes	Direct provision of services by state	Price controls; universal access requirements; standards (specifications)	Financial services (pension schemes); Public services; All sectors (consumer protection)
Community Values	Ensure preservation of common values	Entry control: licensing, certification	Subsidies; national treatment	Entertainment (bars, casinos); Cultural services (theaters, libraries); Broadcasting (quotas for local content)
Paternalism	Support individual well-Being		Information requirements; taxation; standards (specifications)	Distribution services (tobacco, alcohol); Entertainment (ratings)
Planning	Coordinate altruistic intentions and long-term objectives	Entry control: licensing, geographical restrictions	Standards (targets/ specifications); subsidies; prohibitions; penalties	Environmental Services; Infrastructure construction; Transport
Human rights	Ensure human rights	Entry control: licensing, certification	Legal framework; standards	All sectors
Precaution	Protect consumers / environment from so-far unknown future impact	Entry control: licensing, certification	Standards (specifications); prohibitions	Digital services (data protection); New services; Finance;

Source: own elaboration based on Molinuevo/Sáez (2014: 14) and Baldwin et al. (2012)

While conventional economic wisdom might indeed suggest that particular decisions for regulation emanating from social and political struggles are beyond the realm of economics proper, this self-restraint must not be used to justify a neglect of the important role the social plays for enabling and sustaining economic development. Indeed, the intimate relationship between the social and the economic is of foundational importance for modern market economies.

4.3. Trust as a precondition for the stability of market economies

Based upon the work of Durkheim and other classical social scientists, Prosser (2006) argues instead, in concordance with many other authors in the institutionalist tradition (see e.g. Hodgson 2015, 1992; Kapp 1963) that law and regulation are constitutive for social solidarity and stability and thus, above all, for the widespread entrenchment of trust in market societies. Indeed, in economies characterized by a marked distribution of labor between largely anonymous economic agents, the existence of trust is a fundamental condition for the viability of fluid market exchange. If for instance consumers cannot be confident that the goods and services they consume every day do not constitute a threat to their health and safety, the economic viability of market societies and hence their social legitimacy will be seriously threatened. As Kenneth Arrow already noted in the early 1970s, in a complex society, it is impossible to write down and enforce detailed contracts that encompass all the state of natures for economic exchanges (Arrow 1972).²⁸

²⁸ This observation provided the foundation for a whole research programme on the theory of incomplete contracts (see e.g. Hart 1995). Though contract theory sees the principal remedy to the problem of incomplete contracts in default rules provided by law, given future contingencies the ability of law to redress the underlying problem remains limited as well.

More recent work has indeed shown that trust is (i) a constitutive determinant of economic growth and that the level of economic growth per capita is positively correlated with the existence of trust, (ii) that the promotion of trust largely depends on the institutional characteristics of countries, that (iii) the building-up of trust occurs only over the long-term, depends on the emergence of quality institutions and is positively influenced by participatory and democratic forms of governance, and that (iv) there exists a strong positive relation between the quality of the legal system and trust (Algan/Cahuc 2013). Furthermore, the empirical literature suggests that European countries are high-trust societies, and also, that generalized trust societies on average are characterized by a lower extent of regulation. Aghion et al. (2010) have shown that the erosion of trust will raise the demand for regulation, since citizens will invoke the strong hand of the government to control economic activity more stringently. Thus, on a more general level, recent research has made a strong case that beliefs (as measured by distrust) and institutions (as measured by regulation) co-evolve. Beliefs shape institutions, and institutions shape beliefs.

This research bears important conclusions for regulatory policy-making, both within the domain of trade and investment policy and beyond. While protagonists of trade and investment liberalization have time and again stressed the importance of regulatory stability in order to increase business confidence for international investors, virtually no attention has been paid to the concern that initiatives for regulatory reform and de-regulation both within and outside trade policy bear the risk of undermining the trust of other economic agents, e.g. consumers or workers. Thus, in particular ambitious proposals for regulatory change like e.g. the EC's Better Regulation Initiative, the REFIT Programme or plans for far-reaching changes to regulations via international (trade) agreements, must be very careful to avoid actions that undermine the trust of a wider set of economic agents, as this would have negative repercussions on economic growth and development.

In consequence, regulation is always context-specific and characterized by path-dependencies. Hence, there cannot be a universal economic logic that should form the basis of regulatory decisions, regardless of socio-political circumstances (Prosser 2006). Moreover, social preferences with respect to the safeguarding of certain values via regulation are institutionalized in culturally specific ways, i.e. enshrined in 'civic epistemologies', as Sheila Jasanoff has extensively shown in her seminal work (see e.g. Jasanoff 2007, 2013). Hence, Jasanoff (2013) argues in favor of 'epistemic subsidiarity' that respects the specific historical settlements of nations with respect to the procedures and substance of their regulatory approach. Advancing forms of "cosmopolitanism", i.e. the universalization of a uniform approach to economic regulation is thus a delicate exercise that risks to undermine the social stability of market exchange in a particular society.

4.4. The case for regulatory diversity

It is no coincidence that the research background to Jasanoff's conclusions is risk regulation, since it is precisely in the field of risk regulation that diverging preferences of people with regard to new technologies and the attitudes of people with respect to risk are likely to emerge. The regulation of economic activities that are relatively new and where technological innovation is dynamic and the social consequences of these activities are not fully known, but can be substantial in scope and irreversible in nature, poses particular problems for regulation.

In such situations, the likelihood that regulators will make mistakes, that new economic developments will require adjustments in regulation and that regulatory innovations need time to be tested, is high. In such a situation, a single approach to regulation will run the obvious risk of making costly mistakes. Thus, a certain level of regulatory diversity by allowing for different regulatory approaches will tend to reduce the costs of error and increase the likelihood that

experimentation as well as mutual learning between regulators in different countries be fostered. Under such circumstances, which are pertinent in the services sector for instance with respect to digital services, ICT services, telecommunication services etc., the case for a diversity approach to regulation is not only motivated by the existence of specific national collective preferences, but also by principles of good regulatory practice.

While this supports the case of international cooperation and mutual learning between regulators, rapid simplification of regulation in services sectors by e.g. harmonizing diverging regulatory standards is thus not automatically the first-best option. Diversity in regulation has value and needs to be taken into consideration in any discussion of regulatory alignment. Given the complexity of many service activities, either because of technological innovation or because of the peculiar characteristics of the respective sector, e.g. financial services, the extra economic costs incurred by allowing for a diversity of regulatory approaches seem warranted. This is particularly the case where the potential economic and social costs of insufficient regulation are high or lead to irreversible consequences for human lives or the environment. Thus, by way of illustration, if we agree that the potential benefits of modern airplanes to passenger safety provided for by having duplication and redundancy of systems deliberately designed into them, compensate for the extra costs that are involved (White 2017), we should equally have an interest that the complexities of modern service industries are adequately addressed by an approach to regulation, which is not primarily motivated by cost efficiency, but by safeguarding defined public policy objectives.

4.5. Taking into account the benefits of regulation – cost-benefit analysis and beyond

4.5.1. Taking into account the benefits of regulation with cost-benefit-analysis

In addition to the technical criticisms we have outlined on the prevailing methodology used to assess the cost savings of regulatory alignment, a fundamental concern relates to the methodological approach in more general terms. First and foremost, most of the mainstream treatment of NTMs implicitly assumes that a substantial dismantling and alignment is possible without a change to the regulatory quality, i.e. the ability of a certain regulation or standard to safeguard a defined public policy goal. Only upon that basis, Berden et al. (2009) are for instance able to restrict themselves to estimating the savings to companies, while completely neglecting the potential social costs of that change.

Overall, we think that using such an approach is not warranted, given that a considerable fraction of the gains derived from regulatory alignment happens – as for instance in Berden et al. (2009) – in exactly those sectors, e.g. chemicals, cosmetics and pharmaceuticals, or food and beverages, where substantial and partly incommensurable differences in regulatory approaches and standards exist between countries. Any dismantling must have an effect on regulatory standards and thus infer a cost upon that society, which ends up with a lowered standard. As institutional economist K.W. Kapp already observed in the 1950s and conceptualized in the concept of “social costs of business enterprise”, a change in a standard will always alter the distribution of costs and benefits between social agents, e.g. between firms and consumers (Kapp 1963). Similarly, firms as well as other social agents will typically be unevenly affected by regulatory change. The latter might e.g. favour big companies, while inferring an additional burden on small companies.

As is generally recognized in economic theory, typically regulations serve a public policy goal. If that regulation is changed – either dismantled or aligned to some other standard, its effectiveness in serving the public policy goal under the particular socio-economic context of a

country will eventually be affected. This might infer a social benefit, if the new standard is higher than the old one, or a social cost, if the new standard is lower than the old one, or were eliminated without substitution. At a general level, social costs might come in the form of temporary adjustment costs, e.g. for harmonising and implementing legislation, or be of a long-term nature to society, e.g. if standards for toxic chemicals were relaxed and resulted in higher public health costs because of a higher incidence of allergies amongst the population.

That the alignment or elimination of NTMs will eventually result in a welfare loss to society, in so far as this elimination threatens public policy goals (e.g. consumer safety, public health, environmental safety) or corrects for market failure, has been recognized by the more recent mainstream literature. Schlueter et al. (2009) stress, that the welfare effects of standards and regulations are *a priori* unclear. Upon the basis of this recognition, Beghin et al. (2012) propose a partial equilibrium cost-benefit framework to discern the trade and welfare effects of NTMs, domestically and internationally. Specifically, willingness-to-pay based on experimental consumer valuations is employed to account for the welfare loss of NTM removal. Upon that methodological basis, the same group of authors provides empirical welfare assessments for NTMs in food and agriculture (Van Tongeren et al. 2010). However, the results derived severely hinge on data availability and are thus not conclusive.

In addition, certain regulations do not only promote welfare, but are directly conducive to international trade, e.g. labor and environmental standards under fair trade schemes. By applying the Trade Restrictiveness Index-approach of Anderson and Neary (2005), Beghin et al. (2014) estimate that such standard-like NTMs affect 12% of HS 6-digit lines and that 39% of these, i.e. 4,7% of the lines, exhibit negative ad-valorem equivalents (AVEs), indicating a net trade-facilitating effect of these NTMs in the respective sectors. Unsurprisingly, such negative AVEs are observable for chemicals, pharmaceuticals and agri-foods. This casts considerable doubt on the predominant view that NTMs are trade impeding by nature.

In contrast to the trade literature, cost-benefit analysis (CBA) has been employed widely in the economic assessment of public policy. In the United States, for instance, federal legislative proposals are routinely assessed by way of CBA. The results of assessment exercises, such as those undertaken by US regulatory agencies would suggest that the social benefits of regulations clearly outweigh their economic costs. A review of all economically significant US regulations over the period 2000-2012 conducted by the Office of Information and Regulatory Affairs (OIRA) has come to the conclusion that benefits outweighed costs in every year and did so by a factor of more than six on average over the whole period (OIRA 2013, cited in Myant/O'Brien 2014: 29).

This primarily owes to the fact that regulatory costs have been shown to be in general very small, even for ambitious projects such as the EU chemicals regulation REACH (Ackerman/Massey 2004), while the benefits of regulation for society are often very high, though difficult to express in purely monetary terms, or as Ackerman and Heinzerling (2004) have put it, they are in effect "priceless". But even if one subscribed to conventional CBA, the results of typical evaluation studies such as those undertaken by US regulatory agencies would suggest that social benefits of regulations clearly outweigh their economic costs.

It should thus be expected that a systematic consideration of the social benefits of regulation would substantially change the overall balance of any assessment of the costs and benefits of the removal or alignment of NTMs. In the best of cases, regulatory alignment in a trade agreement might lead to an improvement of regulatory standards. Since regulations are predominantly seen as a cost to business, in TiSA as well as most other trade agreements, we would however contend that risks for downward levelling of regulation should be expected to be preponderant. Given the high social benefits of regulation, even minor regulatory changes might dwarf

the welfare gains of most new generation trade agreements, or even worse, shift the overall balance into the negative.

4.5.2. The methodological limits of cost-benefit-analysis

In our discussion so far, we have laid open a fundamental flaw of the standard treatment of NTMs, namely that NTMs are typically seen as a cost item only. Though in the more recent literature it has been acknowledged that NTMs also infer benefits upon society, insofar as they correct for market failures, the analytical treatment has been focused on CBA with the aim of estimating the monetary value of those benefits and costs. This raises some serious methodological and epistemological problems, to which we will now turn.

Neoclassical welfare economics, of which CBA forms a part, is firmly rooted both in methodological individualism and utilitarianism (Blaug 1992). As such, basically every kind of regulation or administrative procedure can be subjected to the kind of economic cost-benefit calculus outlined above. There is, for instance, no inherent limit in this approach to assess the economic costs and benefits of slave or child labor. Taking a less controversial example, from the neo-classical standpoint it is perfectly feasible to ask whether the fact that in most of Continental Europe annual paid leave amounts to 5-6 weeks, while in the US it is typically 2 weeks only, constitutes a cost to business and thus impediment to international economic activity, *aka* a NTM. Similar can be said about other labor standards, environmental regulations or fundamental rights (see sections 5.1., 5.2., and 5.3. for detailed case studies). As a matter of fact, this approach has been extensively applied in key international policy documents, perhaps most notoriously in the *Doing Business Report* of The World Bank. For instance, the report has for many years categorized paid annual leave as follows: (i) excessively flexible (<15 days), (ii) balanced (15-21 days), (iii) semi-rigid (21-26 days), and (iv) excessively rigid (>26 days) (World Bank 2013). Thus, the implied policy recommendation is that a 'social optimum' regulation on paid annual leave would lie somewhere in the order of 15-21 days. The problem here is not to concede that for workers in some countries this would constitute an improvement, or to criticize that this would weaken labor standards in some other countries. Instead, the crucial point is that mainstream economic theory implies that it is possible to express all the relevant dimensions of a phenomenon in monetary terms. Besides, an additional implication is that trade-offs can be handled by means of monetary compensation. In other words, it assumes the strong comparability or *commensurability* as well as the compensability of values (see Martinez-Alier/Munda/O'Neill 1998). The underlying epistemological claim is that this is true regardless of whether CBA is applied to labor standards, environmental regulations, or health and safety regulations.

However, economic value expressed in monetary terms is just one of many dimensions of value that are typically present in a situation of social choice. Coming back to our example of paid annual leave, such other types of values could be the social value of devoting time to family life, the cultural value of engaging in religious activities in one's community, the political value of participating at the municipal council etc. Thus, basing a decision on the duration of paid annual leave only on its cost to business would amount to methodological reductionism, since it leaves out other relevant dimensions. Of course, one could use willingness-to-pay to monetize the economic value workers attribute to an additional day of vacation and balance these with the cost to business. Would citizens accept such a CBA exercise as the exclusive basis for a political decision on the issue? We doubt it, though there are proposals of including moral values into CBA exercises (see e.g. Posner/Sunstein 2017). Such decisions are strongly influenced by political interests, which in turn are shaped by collective systems of beliefs about what more recently has once again become discussed under the umbrella term of *The good life* (see Skidelsky/Skidelsky (2012) for an overview). CBA will thus potentially condense any

kind of value dimensions into a monetary value, but this metric will not fully represent all the dimensions of social value inherent in typical collective choices.

If we accept this fundamental methodological point, two directions for applied research on the economic valuation of regulations seem feasible. Either we concentrate on economic assessments by using CBA or similar methods, and leave it to the political process to bring in other social aspects that need to be contemplated as part of a collective decision process. Or we aim at broadening our methodological approach so as to include these other dimensions of value more systematically.

The first option would constitute a step forward in comparison to the prevailing approach, insofar as it would imply a more 'enlightened' form of methodological reductionism – of the sort 'we economists know that we cannot grasp social phenomena in their full complexity by our standard methodology, but unfortunately we cannot do any better than that'. A necessary complement of this approach would be, in our judgement, to explicitly call for a deliberative policy process where these other qualitative dimensions would be considered. Undoubtedly, from an epistemological point of view, this approach is unsatisfactory, at least if the pretension of economic science is both to fully understand social reality and offer advice on rational economic policy-making. Besides, given the superior position of science as a source of legitimacy in modern society, any standpoint that is substantiated by scientific knowledge enjoys an advantage over other standpoints in public debate, thus biasing the Foucaultian *order of discourse*.

The second option would consist in proposing an alternative approach that would try to comparatively assess all value dimensions of a collective choice problem through some consistent procedure. This approach would need to be able to deal with the problems of incommensurability and of non-compensability of values. One method to use for that purpose could be social multi-criteria evaluation (see e.g. Munda 2008). Based on the concept of weak comparability of values it allows for making decisions even in the absence of a unitary standard of measurement (monetary or otherwise), i.e. in a context of plural values. Non-compensability refers to situations, in which certain values cannot be compensated, i.e. traded-off against some other value (Martinez-Alier/Munda/O'Neill 1998). This is particularly pertinent where certain deeply-held values have become codified in the form of laws or fundamental and human rights, respectively. Thus, for instance, the prohibition of slave or child labor must not be traded off by an FTA against some economic benefit. Multi-criteria evaluation allows for the operationalization of such situations of non-compensability. Alternatively, certain elements of social values might be considered superior to others, such that hierarchies of values might be defined. Thus it might be feasible to define basic human rights, or in the ecological domain, certain natural resources or eco-system services as critical and thus non-compensatory, while other social standards or ecological amenities would in principle be considered compensatory.

The important point about either of the two options is that they bring to the fore important dimensions of value that matter to affected stakeholders. Thereby, the political debate will be enriched and policy-makers will receive a fuller account of the issues at stake.

5. CASE STUDIES

Although the full scope of regulatory change brought about by TiSA remains to be seen, the agreement once in place will undoubtedly touch upon a great variety of regulatory issue areas that are of vital importance both for economic development and social welfare. In this chapter, we will attempt to highlight critical issues of regulation in three case studies relevant to TiSA.

Case Study I discusses environmental regulation in transport services. Undoubtedly, transport has played a key role for the expansion of international trade. In order to achieve the Paris Agreement climate policy objectives, which call for a drastic reduction of greenhouse gas emissions, the regulation of transport services will be of crucial importance in the medium term future. Given the modest record of EU policies to reduce emissions so far, we argue that a new and much more interventionist policy approach will be needed that will potentially be in conflict with regulatory disciplines enshrined under TiSA. **Case Study II** discusses digital trade and the attached issues of privacy and data protection. The case serves to illustrate that regulation in a dynamically evolving high-tech sector is essentially a trial and error process subject to largely diverging economic and social interests, with the latter being enshrined in the fundamental rights obligation of the EU. This clearly calls for an approach to regulation that maintains a high level of flexibility and exempts certain measures from the scope of trade negotiations altogether. **Case Study III** deals with the issue of core labor standards. Although often treated as a non-trade issue and thus kept outside of multilateral trade agreements, notably from the WTO, it argues that both economic and political-legal arguments support the inclusion of labor standards in TiSA, given that the agreement aspires to become the future global benchmark for the regulation of trade in services.

5.1. Case Study I: Transportation services and emissions

Transport plays an important role in today's global economy. Due to increasingly fragmented production processes – organized within global value chains - as well as changes in private travel and consumption habits, logistics and transport services have developed dynamically over the last decades. The volume of container port traffic, for instance, more than tripled globally and more than doubled in the EU from 2000 to 2014 (World Bank, WDI data). Similarly, total freight transport within the EU-28 increased from 1995 to 2015 by 23.6%, with road (33.7%) and air freight (44.9%) growing above average (Eurostat data).

With the importance of global logistics and transport networks as a linchpin between spatially separated production processes, these services have become an increasingly important input factor for goods and other services production and trade. The EU estimates that transport and storage account for 10-15% of the costs of finished products for European companies. In addition, around 13% of household expenditures in the EU are attributed to transport goods and services. Thus, the EU transport sector is a vital sector in terms of employment and GDP, accounting for 10 million jobs and 5% of GDP as well as with respect to facilitation for other sectors.²⁹

The pivotal role of the transport sector is also reflected in the TiSA negotiations. At least three sectoral annexes are expected to set new and enhanced disciplines on transportation sub-sectors – air transport services, international maritime transport services and road freight transport including related logistics services. Unofficially released negotiation texts indicate

²⁹ See: <https://ec.europa.eu/irc/en/research-topic/transport-sector-economic-analysis> (04/12/2017)

that TiSA focuses on enhanced access to transportation markets in all TiSA members.³⁰ The EU is particularly interested in addressing and removing current restrictions on maritime transport services, given that European ship-owners control 40% of the world's merchant fleet (ECSA 2017). TiSA concerns further the access to and use of public infrastructure as well as the scope of services included, in particular barriers to intermodal transport networks, which interconnect water, rail and road transportation (Wikileaks 2016). A central concern of the negotiation texts is therefore the liberalization of multimodal transportation operations as shown below. Social and environmental aspects are included with regard to domestic regulations, stating for instance that any technical standards may not be discriminatory and must be based on objective and transparent criteria.

The transport sector depends however heavily on fossil fuels and is therefore a main source of greenhouse gas (GHG) emissions. As a whole, transport accounts for 23% of global CO₂ emissions and for 30% in OECD countries (OECD 2015). The majority of international trade-related CO₂ emission emerges from road transport (53%), followed by sea (37%), air (7%) and rail (3%) (OECD/ITF 2015). Most importantly, the emissions of CO₂ and other GHGs from the transport sector are expected to increase drastically in the coming decades due to the expansion in demand for these services. According to a study by OECD/ITF (2015), international trade-related CO₂ emissions will grow by a factor of almost 4 between 2010 and 2050 in a baseline scenario. In addition, multilateral liberalization of trade in goods would accelerate the growth of trade and emissions further, resulting in extra output of CO₂ by 15% (ibid.). Cristea et al. (2013) also show that transport emissions grow much faster than the value of trade due to trade shifting towards more distant trading partners in the case of further trade liberalization. Although future growth in demand for freight transport may not be as explosive as these studies suggest, the growth is likely to be robust and poses therefore a major challenge for policy makers to fulfill the targeted reduction in GHG emission in this sector.

There is however a distinction between international/long-distance and domestic/short-distance transportation. On the one hand, international transportation accounts for 90% of freight volume in terms of ton-kilometer and is largely carried by ships – for instance, 90% of all EU's foreign trade is conducted by water transport (EC 2014a). Domestic transportation, on the other hand, which is ultimately linked to international trade via its function of transporting goods to intermediate and final consumers, is mostly carried out by road transportation. However, road transportation is more emission intensive. As a result, a relatively high share of CO₂ emissions emerges from domestic transport activities (30%), despite the low share in ton-kilometer terms (OECD/ITF 2015). Although regulations to control GHG emissions from transport have an international dimension, given the nature of water and air transport systems that will require global action³¹, transportation is essentially a local concern. Policies on transportation therefore fall to a large degree into the sphere of domestic regulations, in particular with regard to road transportation, ship emissions in ports and infrastructure development, which in turn affect the provision of and trade in transport services.

These interlinkages between trade, transportation services and GHG emissions suggest a broader approach to assess effects of trade liberalization and changes to regulation in the transport sector. If reducing total ton-kilometers is inevitable as suggested by most studies, the efforts will have to focus on a drastic reduction of average carbon intensity of freight

³⁰ This is in contrast to the assumptions of unchanged regulations applied in the TiSA-SIA, even though the market access barriers identified by the European Community Shipowners' Association, and listed in the TiSA-SIA (CEPR/ECORYS 2017: 167), are all part of the leaked TiSA negotiation texts on maritime transportation.

³¹ Emission limits for air pollutants and energy efficiency standards for ships are agreed under the UN International Maritime Organization (IMO) framework (OECD 2015: 127).

transport and other modes of transportation. A study by the EC (2014b) illustrates this challenge: allowing for a projected increase in freight transport by around 60% from 2010 to 2050 requires reducing the carbon intensity of freight movement to 20% of its 1990s levels in order to meet CO₂ reduction target. Regulatory measures can influence this development with respect to various parameters such as supply chain structure, modal choice, energy efficiency, fuel carbon intensity or vehicle utilization (McKinnon 2016). Even though it appears to be evident that aggressive policy interventions are needed to reduce GHG emission, the premise for any regulatory measures remains rooted in its cost-effectiveness (Sims et al. 2014).

This demand for cost-efficient regulation with regard to environmental regulations has promoted the application of cost-benefit analysis as the standard methodology to assess regulations on GHG emissions in the transport sector. The main idea is the estimation of the “social cost of carbon” (SCC) expressed as the monetary value of damages caused by a ton of CO₂ emissions (Ackerman 2016). Even though SCC estimates range from USD 32/ton to USD 900/ton in various studies (Ackerman/Stanton 2012; Dietz/Stern 2015; Moore/Diaz 2015), these values allow in principle for a comparison with costs of regulatory measures to reduce carbon emissions. An example for such a cost-benefit analysis provides the analysis of US Corporate Average Fuel Economy (CAFE) standards, which seek to improve fuel efficiency and reduce greenhouse gas emissions of passenger cars and light vehicles. Between 2017 and 2025, the benefits of this program are estimated to account for USD 501 billion, which clearly exceeds program costs of USD 150 billion. Besides fuel savings, the reductions of GHGs contribute largely to these estimated benefits (Consumers Union 2013).

These strong beneficial effects of regulations in comparison to costs can be shown for all ‘economically significant’ US regulations between 2000 and 2012. On average, the estimated benefits of these regulations outweigh costs by a factor of six (6) (OIRA 2013 in Myant/O’Brien 2015). With regard to SIAs of FTAs, this methodology could be a possibility to relate economic and environmental effects of FTAs more directly. The SIA on TTIP by Ecorys (2017) provides estimates of the SCC from increased emissions from the EU-US FTA. The assumed cost per ton of CO₂ was set at USD 20, even though van den Bergh/Botzen (2014) suggest a SSC of at least USD 125/ton, based on their literature review on SCC estimates. As elaborated in section 4.5., the CBA approach has clear limitations in reducing any relevant aspects to a quantifiable form, in particular social rationales for regulations, as these are in effect “priceless” as Ackerman and Heinzerling (2004) have put it.

More generally, the call for cost-efficiency favors market-based instruments, such as carbon cap and trade systems or regulatory measures that cause the internalization of external costs or provide incentives to overcome market failures. However, the experience with the emission trading system in the EU has been disappointing so far, as the system has not stimulated investment in de-carbonization and contributed very little to meeting GHG targets (IEA 2014). Further, carbon and fuel taxes have not changed the transport sector’s behavior significantly, at least not with respect to meeting climate goals (Sperling/Nichols 2012). In addition, the argument that trade liberalization is in itself a means to reduce emissions from transport due to increases in efficiency brought about by more competition and modern intermodal logistic networks is unconvincing (OECD 2015; OECD/ITF 2015), given that emissions from trucks and busses within the EU are still increasing despite improvements in fuel consumption efficiency.³²

As a result, a suite of policy instruments is needed to achieve the large emissions reductions necessary to meet EU climate goals, which includes notably regulations other than market-

³² See: https://ec.europa.eu/clima/policies/transport/vehicles_en (04/12/2017)

based instruments. However, policies such as intervening in supply chain structures and restrictions on modal choice could be in conflict with liberalization ambitions in transportation services trade. According to the EU's transport policy paper (EC 2011), the main contribution to designing a sustainable transport system should come from the shift from road transport to railways and inland waterways. Accordingly, the policy target is to shift 30% of road transport over distances in excess of 300 km to these alternative modes by 2030, and over 50% until 2050. Given the EC's own projections indicating that the modal share of rail freight will only increase from 15% in 2010 to 18% in 2050 (EC 2016: 60), achieving these targets remains elusive without stronger policy interventions, that will arguably involve command and control measures for companies with respect to modal choice or with respect to limitations on vehicles in transit. This would very likely constitute a regulatory impediment to trade beyond what might be considered acceptable under WTO legislation, including under the general exceptions clause of Article XIV GATS, which will likely be included in the TiSA agreement. Besides, it might involve a discrimination against foreign companies.

In addition, achieving the stated modal shift to rail freight requires substantial public investment in new and high-quality railway as well as logistics infrastructure in the EU, which raises questions with regard to financing and managing these investments. Given both the scale and irreversible nature of the impacts of climate change and the climate commitments of the EU, such a heavy-handed approach to regulation might well be justified (see Ackerman 2017).

In sum, it remains currently unclear in how far the stated ambitious goals of cutting back GHG emissions by 80 to 95% by the year 2050 in the EU are possible to obtain, under the condition that transport policies are 'least burdensome' to trade. Given that the effectiveness of GHG mitigation policies are location-dependent and influenced by additional economic, political, social, and cultural factors (Chester et al. 2014), regulators might be required to set policy priorities which clearly favor environmental and health over trade and economic objectives, respectively. Thus, the maintenance of policy space and regulatory diversity are crucial requirements for the successful implementation of policies to reduce GHG emissions from transport and other sectors.

5.2. Case Study II: Digital Trade, Privacy and Data Protection

Digital technology is significantly impacting production processes of goods and services, as well as trends in services trade and global trade more generally. A number of research reports have been published in recent year discussing the dynamics of digital trade and the digital transformation of the global economy (MGI 2016; UNCTAD 2016; López González/Jouanjean 2017). At the center of interest in this field is the movement of data, in particular across borders, which is identified as the essential factor for these processes and as a means of production itself (López González/Jouanjean 2017). The McKinsey Global Institute (MGI 2016) estimates that cross-border data flows have grown 45-fold from 2005 to 2014 and raised GDP between 1995 and 2013 by 3% – almost as much as trade in goods. The movement of data within a country and across border obviously concerns regulation, given that data protection and privacy are for instance defined as fundamental rights to EU citizens and residents. Thus, the potentially conflicting interests between cross-border flow of data and rights to protect personal data and privacy as well as issues on net neutrality and data localization requirements are increasingly debated within the area of international trade law. Given the ongoing multilateral and bilateral trade negotiations, the trade and privacy interface has not been fully defined yet (Irion/Yakovleva/Bartl 2016).

The EU as a leading actor in global trade negotiations has a pivotal role in this debate. The EU has attributed a high normative value to privacy (rights related to the personal sphere of human beings) and data protection (rights on how to control own personal information) as

these rights are protected through the 2000 Charter of Fundamental Rights of the European Union and EU secondary law (Irion/Yakovleva/Bartl 2016; EDRI 2016). The EU General Data Protection Regulation (GDPR) of 2016 introduced a harmonized and binding data protection regime for all EU member states and makes cross-border transfer of personal data subject to requirements in order to ensure a high level of personal data protection (Bendiek/Schmiege 2016). In the debate about rationales for regulations (see Section 4), EU legislation can be considered a rights-based approach to regulation as the fundamental rights to privacy and data protection are set as fixed regulatory objectives at the center of policies and standards. This is also acknowledged in the EU trade strategy by stating that “rules on the processing of personal data are not negotiated in, or affected by, trade agreements” (EC 2015b: 12).

However, there are legal concerns about privacy and data protection in connection to international trade law (Irion/Yakovleva/Bartl 2016), as well as economic concerns with regard to the impediments these regulations confer upon digital trade and cross-border data flows. In particular the key role attributed to data flows in the digital transformation of economic activities and the expected growth prospects from digital trade fuel this line of discussion that consequently favors liberalized cross-border flows of data. However, uncertainties concerning the measurement of digital trade and the methodologies to assess the value adding content of data flows and effects of data protection measures prevail.

López González/Jouanjean (2017: 4) describe digital trade as “*digitally enabled transactions in trade in goods and services which can be either digitally or physically delivered and which involve consumers, firms and governments.*” Thus, the focus in the discussion is not particularly on digitally delivered services per se – even though this type of trade accounts for more than half of all US services trade today (ESA 2015) – but rather on the enabling function of data flows. In a broad sense, this concerns all cross-border data flows that are part of sales and marketing processes (e-commerce, social networks) or intermediary inputs to production of goods and services (Internet of Things, Peer-2-Peer trade). The Swedish Board of Trade underlines this essential role of data for all economic sectors and the need of companies to transfer data by titling its report ‘No transfer, no trade’ (Kommerskollegium 2014). As cross-border data flows are seen as the underpinning factor and even as means of production which transform what and how we trade (López González/Jouanjean 2017), restrictions to the flow of data and information across borders are perceived as an impediment to trade in goods and services and ultimately to economic growth and welfare (Tuthill 2014).

Although research on the interconnection between digital trade, data transfers and welfare has been intensified in recent years, there remain various issues with regard to reliable measures of data flows and their contribution to value creation. The McKinsey Report (MGI 2016), for instance, uses cross-border used bandwidth as an approximation of data flows for its analysis, which suffers however from double-counting as internet traffic can be routed through several third-party countries. It remains therefore unclear how much of this internet traffic actually contributes to economic value creation. International trade statistics do not necessarily under-record digital trade as a cross-border transaction, but it is less certain how and what cross-data flows contributed to these recorded trade flows (López González/Jouanjean 2017). For instance, the volume of digitally enabled cross-border transactions such as e-commerce of goods cannot be directly extracted from trade statistics and thus rely on estimates (UNCTAD 2016). In addition, intra-company transactions initiated by multinational companies (conventional and tech firms) are subject to uncertainties as they can be recorded as services of primary income flows (López González/Jouanjean 2017). Due to these measurement limitations, reports and analysis on the effects and potential of digital trade should be analyzed with caution, as efforts to improve statistical measures to reflect digital trade are still underway (ibid.).

This uncertainty is also relevant with regard to assessments on the effects of privacy regulations on trade flows. The scope of personal data in overall data flows is widely unknown. Although a large number of digital activities lead directly (disclosure of private data online) or indirectly (inferences from online activities) to the creation of personal information (WEF 2011), total data flow include machine generated or industrial data independent from information from or of natural persons. These data flows, which are unaffected by privacy or data protection regulations, can however initiate trade flows, for instance via signaling the need for a maintenance service (Bendiek/Schmieg 2016). Thus, the link between privacy regulations, data flows and trade flows remains too vague as to call for the general dissolution of privacy and data protection regulations (Irion/Yakovleva/Bartl 2016).

Further, estimates on the effects of proposed or enacted data protection and data localization measures with standard CGE models typically see these measures as barriers to trade which increase prices to exports and reduce productivity, leading to substantial reductions in GDP and welfare. Bauer et al. (2014) estimate that EU's GDPR in combination with data flow regulations in other countries creates a loss in the EU's GDP of -0.4%. In the case of additional data localization requirements, EU GDP would even decline by -1.1%, equivalent to a welfare loss of up to US Dollar 800 per worker in the EU (Bauer et al. 2014: 9). Even with the problematic assumptions of CGE models, which typically derive gains from the reduction of regulatory measures (Raza et al. 2014), these results appear as an overestimation, as the effects relate to changes in very specific regulations only.³³ In a more recent study, Bauer et al. (2016) estimate that removal of existing data-localization policies in the EU would increase EU GDP by 0.06%.

Similar to the discussion on the conventional economic approach to regulation, studies that emphasize the negative effects of privacy and data protection regulation on trade and welfare typically overlook the potential gains from these regulatory measures and the cost of a lack of such protection. Given that private data and information have private as well as commercial value, both aspects are strongly interlinked (Acquisti et al. 2016). In the case of digital trade, these benefits emerge from consumer trust and the cybersecurity that these regulations build up for cross-border e-commerce and online transactions. In other words, these regulations have an 'enabling function' themselves (see also section 4.2.). The role of trust for digital activities and trade is widely acknowledged in statements, surveys and reports. For instance, the US Department of Commerce identifies the promotion of trust as an important pillar for the digital economy agenda (Davidson 2015). A number of Swedish companies surveyed for the Swedish Board of Trade highlight that data storage within the EU can be a selling point as it builds trust (Kommerskollegium 2014: 18). Further, an UNCTAD report (2016: iii) underlines that *"creating trust online is a fundamental challenge to ensuring that the opportunities emerging in the information economy can be fully leveraged."*

Although trust is not necessarily induced by strong governmental interventions, which could also serve government surveillance and economic protectionism, there is an important role of regulatory interventions with regard to privacy and data protection in combination with other methods such as technical solutions and economic incentives (Acquisti et al. 2016). Given that almost two thirds of EU consumers are skeptical about data handling of online business and concerned about the misuse of their private information in the internet (Eurobarometer 2015), privacy regulations on personal data are currently an important element supporting trust in digital transactions for EU citizens.

³³ In comparison, estimations with standard CGE models of GDP effects in the EU from TTIP, for which extensive liberalization with full reduction in tariffs and a substantial reduction in NTBs in all sectors is typically assumed, range from 0.3% to 0.7% (see Raza et al. 2014 for details).

More importantly, given that the exploitation of commercial value of data potentially entails negative repercussions on personal utility, for instance via discrimination in retail, credit or insurance markets based on consumer profiling or due to the risk of fraud and misuse of private information, regulatory measures must be given sufficient policy space to achieve a beneficial balance between the private and commercial nature of private information (Acquisti et al. 2016; Kelsey 2017). This is particularly true for future innovations in digital technologies, for which costs and benefits for individuals and society are unknown a priori. Therefore pluralism and autonomy in regulatory measures are key elements in the legal framework to achieve broader societal objectives in the context of uncertainty (Yakovleva/Irion 2017). With regard to trade negotiations, there is a great risk that wide reaching trade liberalization will encompass highly data-relevant products before all economic and social consequences of liberalization are assessed and targeted with appropriate policy instruments (Bendiek/Schmiege 2016).

In TiSA, the annex on e-commerce is most importantly concerned with trade enabled by electronic means and is therefore treated as a cross-sectoral issue including retail, financial and business services (EC 2016a). So far, the EU included a high standard of data protection and privacy in its bilateral trade agreements. In the EU-South Korea FTA, it is explicitly stated that both parties should develop appropriate privacy protection rules with regard to personal data, treating these rules not just as exemptions from free trade (Bendiek/Schmiege 2016). The European Parliament calls therefore with regard to TiSA for a *“comprehensive, unambiguous, horizontal, self-standing and legally binding provision based on GATS Article XIV which fully exempts the existing and future EU legal framework for the protection of personal data from the scope of this agreement, without any conditions that it must be consistent with other parts of the TiSA; to apply such provisions to all other TiSA annexes; to immediately and formally support such proposals in the TiSA e-commerce annex; to support proposals aimed at ensuring that domestic legal frameworks for the protection of personal information of users are applied on a non-discriminatory basis; to apply the data protection provisions enshrined in the annex on e-commerce to all other TiSA annexes, including on financial services”* (EP 2016b).

This strong call for exemption by the EP – which would be in line with the EU’s general trade strategy – is however challenged in the TiSA negotiations and various lobby groups expressed their concerns on strict regulations on privacy and data protection (see for instance IDEC 2014; Business Europe 2017; Cory 2017). The leaked TiSA negotiation documents on e-commerce indicate that countries such as the US, Japan and Canada demand a free flow of cross-border data, as *“[n]o Party may prevent a service supplier of another Party from transferring, accessing processing or storing information, including personal information, within or outside the Party’s territory, where such activity is carried out in connection with the conduct of the service supplier’s business”* (Wikileaks 2015, Article 2.1.). Further, the annex on localization measures seeks to ban local presence, local content, and other performance requirements with exceptions only on security grounds, for financial services, and government procurement (EP 2017).

Besides, also in the current trade negotiations between the EU and Japan, the issues of personal data flows and data protection are not fully captured (Bartl/Irion 2017). The inclusion of a rendezvous clause on the free flow of data in the EU/Japan FTA draft (EC 2017, Chapter VI, Article 12) shows however that there is an evolving discourse on data flows. The EP (2017: 26) therefore concludes that *“we are bound to see more deliberate action and commitments in future trade agreements”*. As the EC’s position paper for the TiSA negotiations on privacy and data protection has not been published yet and TiSA negotiations are on hold, the position of the EC on the role of data privacy and protection remains unclear at present.

5.3. Case Study III: The role of International Labor Standards

Countries differ quite strongly with respect to the labor and social rights they apply. In international comparison, and substantial differences between Member States notwithstanding, the EU does enjoy very high labor standards, to the promotion of which it has committed itself under various legal instruments, including the European Social Charter of 1969, the EU Treaties and most recently, the European Pillar of Social Rights.³⁴

Besides representing costs to businesses, a number of studies have shown that labor standards have a positive effect on productivity. This owes to a number of reasons: (i) they are conducive to the formation of human capital, as workers enjoying certain levels of protection and wage increases, have an incentive to invest into their skills and those of their children; (ii) the formation of trade unions and collective bargaining systems stabilizes industrial relations and thus avoids the costs associated with labor unrest, while positively contributing to cooperation in the company, and (iii) the comparatively higher average wage increases achieved by trade unions under collective bargaining systems provide companies with an incentive to invest into new and productivity-enhancing technologies. Thus, the economy will move from an extensive use to an intensive use of labor, where productivity gains will lead to higher wages, which again will act to trigger further productivity increases (Scherrer 2017; Dehejia/Samy 2009).

Nevertheless, the persistence of strong violations of labor rights in the Global South indicates that for many LDCs it is still very difficult to initiate the virtuous circle described above. Strong export performances notwithstanding, improvements in labor rights and wage levels are hardly forthcoming in the countries of East Asia, which are specialized in labor-intensive industries such as garments or electronics assembly. This has to do both with strong competition between suppliers between these countries and the inferior bargaining position of suppliers from LDCs in buyer-driven global value chains dominated by EU or US companies (Anner/Houssain 2016). A government trying to unilaterally introduce better working standards would risk hurting the competitiveness of its most important export sectors. Against this background, it is close to impossible for LDCs to improve on labor standards by themselves. What is needed, thus, are international initiatives, which promote adherence to and the binding implementation of core labor rights.

The case for promoting labor rights can be equally made from the perspective of the industrialized world. If domestic companies gain competitive advantages by exploiting egregious working conditions in the global South, their economic success is based upon a type of competition that is either ruled out at home by law or is considered to violate the domestic social contract, i.e. widely held domestic ethical norms. The following example serves to illustrate this point.

Consider the following example (see Rodrik 2017): Suppose two firms – Firm A and Firm B – compete with each other. In each of the following four cases, Firm A outcompetes Firm B, resulting in Firm B going out of business and its employees losing their jobs. Should the four cases be blocked or allowed to run their course?

- (1) Firm A works hard, saves and invests a lot, and comes up with new techniques and products, while Firm B lags behind.
- (2) Firm A finds a cheaper (or higher quality) supplier in Japan.

³⁴ See: *European Pillar of Social Rights*, proclaimed 17 November 2017 at: https://ec.europa.eu/commission/sites/beta-political/files/social-summit-european-pillar-social-rights-booklet_en.pdf (29/11/2017)

- (3) Firm A outsources to a supplier in Bangladesh, which employs workers in 12-hour a day shifts and under hazardous conditions.
- (4) Firm A brings Bangladeshi workers to the EU under temporary contracts, and puts them to work under conditions that violate domestic labor, environmental, and safety laws.

All 4 scenarios are equivalent in purely economic terms. Scenarios (3) and (4) appear however problematic insofar as they force Firm B to compete with Firm A under rules that have been prohibited at home, in domestic competition. Furthermore, Scenario (4) is illegal both under EU law and the regulatory disciplines in EU trade agreements that govern Mode 4 trade in services,³⁵ even though its practical consequences are identical to those of scenario (3). Many economists who have no difficulty with the outsourcing scenario (3) would regard scenario (4) as unconscionable. But if we treat (3) as acceptable, why should we not accept (4) as well? Alternatively, if we reject (4), why would we accept (3)? In contrast to scenarios (1) and (2), which arguably will be judged by a majority of people as representing legitimate cases of competition, cases (3) and (4) would be considered to violate basic domestic social and legal norms, and thus constitute unfair cases of competition won by 'social dumping'.

The relevance of the labor standards issues does not only pertain to manufacturing or agricultural sectors, but also to services. Services in industries such as transport, tourism, entertainment or personal services (e.g. house maids, care workers) are widely-known for precarious working conditions. It is thus remarkable that TiSA negotiations have been unfolding without due efforts to promote decent work in the global services sector.

Nevertheless, claims for the inclusion of labor and social standards in TiSA have been made for instance in the SIA on TiSA (Ecorys/CEPR 2017a) and in the resolution by the European Parliament on the TiSA negotiations (EP 2016b). According to Ecorys/CEPR (2017a), the overall effect on labor rights is unclear, as there are both positive (increased economic development which allows for better working conditions) and negative aspects (increased competition that may put pressure on standards) at play. Based on the risk of pressure on social and labor rights and standards, the SIA recommends that "*TiSA includes provisions to promote the ratification and implementation of the principal ILO Conventions*" (Ecorys/CEPR 2017a:271). The EP (2016b) also demands from the EC to ensure that the eight fundamental International Labour Organization (ILO) Conventions are ratified and effectively implemented by TiSA parties and recommends the inclusion of a revision clause in TiSA in order to establish a mechanism that would allow a party to leave the agreement or to suspend or reverse commitments concerning the liberalization of a service, particularly in the event of infringements of labor and social standards. In its Opinion on TiSA, the Committee on Employment and Social Affairs of the European Parliament goes even further in calling for provisions in TiSA, which would make the agreed ILO and other standards enforceable and subject to the agreement's dispute resolution mechanism, including the possibility of invoking trade sanctions in cases of severe infringements (EP 2016b). Also ETUC/CES (2013) argue that TiSA should contain enforceable labor standards in order to guarantee a social protection floor, out of which a process of gradual convergence of labor standards between trading partners could emerge.

These demands notwithstanding, as of now, TiSA is not foreseen to include specific labor standards provisions or a Trade and Sustainable Development chapter, as is the case for other EU trade agreements. So far the EC (2017) has been reluctant to integrate labor standards in TiSA and advocates instead for the promotion of decent work and ILO conventions through other relevant channels. This position does not only contradict the EU trade strategy, but given

³⁵ See in particular the so-called Labour Clause in the EU schedule of specific commitments, http://trade.ec.europa.eu/doclib/docs/2012/november/tradoc_150087.pdf (31/12/2017).

the model character of TiSA aspired for by the EU is simply not defensible under an approach to trade policy that wants to promote socially inclusive trade.

6. POLICY RECOMMENDATIONS

“TiSA negotiations should achieve effective international regulation, not lower domestic regulation”;

“Consumer rights as well as social and environmental standards are not trade barriers but non-negotiable building blocks of the Europe 2020 strategy for smart, sustainable and inclusive growth.”

“Whereas data protection is not an economic burden, but a source of economic growth; whereas restoring trust in the digital world is crucial; whereas data flows are indispensable to trade in services but should never compromise the EU’s acquis on data protection and the right to privacy”;

European Parliament, Resolution on TiSA, 03 February 2016

Against the observable deregulatory bias in the more recent past, far-sighted trade policymakers have long recognized the importance of safeguarding fundamental social values. For instance, former EU Trade Commissioner and WTO Director-General Pascal Lamy’s (2004) proposal on ‘collective preferences’ already addressed many of the crucial issues that we have dealt with in this report. Lamy essentially argued that certain values societies hold are of fundamental importance and hence non-negotiable. Thus, he wanted to spur a discussion on the scope of these collective preferences and their treatment in EU trade policy, against the reasoned expectation that respect for these issues would become more important for maintaining the legitimacy of future trade policy. Although it triggered some appreciative responses at the time (e.g. Charnovitz 2004), with the re-emergence of a more aggressive bilateral approach in EU Trade Policy since the mid-2000s and the parallel thrive of the Better Regulation agenda, interest in the discussion has subsequently subsided.

It is thus to be applauded, that the European Parliament in its TiSA resolution of February 2016 has explicitly addressed many central concerns relating to the non-negotiability of fundamental human and social rights. The above quotations illustrate the express language of the resolution on these matters. A comprehensive and balanced evaluation of the social and well as economic benefits and costs of regulatory alignment via FTAs is all the more pertinent, given that the political cost-benefit ratio of further trade liberalization has significantly deteriorated. As Dani Rodrik (2017) has succinctly argued, the redistributive effects of trade liberalization become relatively larger and tend to trump the net gains from trade as the trade barriers in question become smaller. This conclusion is supported by the across-the-board very small income effects reported by recent impact studies on EU trade agreements, including the Ecorys/CEPR TiSA SIA scrutinized in the first part of this study. If one takes into account the redistributive effects and social costs of regulatory alignment not considered in the EU SIA studies, the net effects of many of the recent EU trade agreements might as well be negative.

Pro futuro, EU trade policy should thus improve on three fronts:

- 1) **Introduce a balanced approach to regulatory impact assessment within the overall framework of EU SIA:** EU trade impact assessment will have to incorporate the manifold

properties of NTMs both more systematically and by way of a more sophisticated methodological approach than at present. 'NTMs' is a catch-all phrase for a very diverse set of standards, regulations, laws and procedures. They range from very detailed technicalities to questions of major societal relevance. Although representing an improvement over the hitherto prevailing outright neglect of the benefits of regulation in EU SIA, the inclusion of conventional cost-benefit approaches will not be sufficient to fully tackle the methodological challenges inherent in such assessment exercises (Ackermann 2008). Instead, CBA must be complemented by other approaches, for instance social multi-criteria analysis, that are able to consistently deal with the problems of incommensurability, non-compensability and fundamental uncertainty. This is particularly pertinent for regulation of new technologies as well as core areas of public policy, such as labor and social standards, environmental regulations and public health policies. With the scope of new generation EU FTAs increasingly becoming concerned with an expanding set of public policy issues, core areas of domestic regulation will inevitably become targeted under the label of enhanced disciplines for domestic regulation. This calls for an approach that introduces deliberative modes of assessing the positive as well as negative effects of regulatory alignment under the full participation of all affected stakeholders. With regulatory issues ranging among the top priorities of the current EU trade agenda, comprehensive as well as methodologically sound regulatory impact assessments should thus become an integral part and a priority of future trade impact assessment exercises in the European Union.

- 2) **Define any new commitments on regulation and regulatory alignment in FTAs with due consideration of the potential costs of irreversibility and lack of flexibility for regulatory policy:** this applies in particular to extending commitments for (a) market access, (b) national treatment; (c) enhanced disciplines on domestic regulation, as well as for (d) the standstill and ratchet clauses. It is of high relevance for cases, where (i) regulatory practice deals with new technologies and novel economic activities, e.g. digital technologies or biotechnology, (ii) regulation reflects the distinct collective preferences of EU citizens and Member States, whether enshrined in EU and national law, respectively, or not, e.g. data privacy rights, or where (iii) regulations safeguard public policy objectives that are vital for the stability and proper functioning of the EU economy, e.g. financial services and public utilities. Useful instruments for this end are prudential carve-outs as foreseen in CETA for the case of regulating the cross-border transfer of personal data, or the model clause for the exclusion of public services from trade and investment agreements proposed by Krajewski (2016b). Similarly, commitments containing sensitive regulatory implications should not be subjected to qualitative conditions (e.g. a necessity test), nor to the principles and guidelines of international bodies if these would introduce a ceiling for the acceptable level of protection (Irion, Yakovleva and Bartl 2016).
- 3) **Include legal remedies for safeguarding public interests in EU FTAs** that (i) maintain the right to withdraw commitments in cases of extreme changes in economic conditions, e.g. during a severe economic crisis, or a change in collective preferences due to democratically legitimate regime changes; (ii) reserve the right to impose trade sanctions, e.g. suspension and/or withdrawal of liberalization commitments for severe breaches of internationally agreed standards and fundamental rights, e.g. with respect to ILO Core Labour Standards or international environmental agreements; and (iii) facilitate access to legal remedies for affected communities and individuals in partner countries, e.g. in cases where the economic activities of EU companies or local companies de-facto controlled by EU companies are in breach of international commitments or EU legislation.

As both the European Commission and the European Parliament have repeatedly underlined, the European Union considers TiSA to become the nucleus of a new blueprint for the regulation

of international trade in services. Laying the proper foundations for this new edifice, if it eventually comes into being, instead of perpetuating current imbalances will be of eminent importance. We have argued in this report that for this to be achieved, in addition to looking at the costs of regulation due consideration must be paid to the long-term benefits of trade-related regulation both for economic development and to society at large.

REFERENCES

- Abbyad, N./Herman, P. (2017): How much do Non-Tariff Measures cost? A survey of quantification methods. Economic Working Paper 2017-05-C. U.S. International Trade Commission, Washington D.C.
- Ackerman, F. (2017): *Worst-Case Economics: Extreme Events in Climate and Finance*, London and New York: Anthem Press
- Ackerman, F. (2016): *Europe's Regulation at Risk – The Environmental Costs of TTIP*. Boston University's Global Economic Governance Initiative.
- Ackerman, F. (2008): *Poisoned for pennies: the economics of toxics and precaution*, Washington D.C.: Island Press.
- Ackerman, F./Massey, D. (2004): The True Costs of REACH. A Study performed for the Nordic Council of Ministers, TemaNord 2004:557, Copenhagen. <http://www.ase.tufts.edu/gdae/Pubs/rp/TrueCostsREACH.pdf> (05/12/2017).
- Ackermann, F./Heinzerling, L. (2004): *Priceless. On Knowing the Price of Everything and the Value of Nothing*. New York and London: The New Press.
- Ackerman, F./Stanton, E. (2012): Climate Risks and Carbon Prices: Revising the Social Cost of Carbon. *Economics: The Open-Access, Open-Assessment E-Journal*, Vol. 6, 2012-10.
- Acquisti A./Taylor C./Wagmann, L. (2016): The Economics of Privacy. *Journal of Economic Literature*, 54(2), 442-492.
- Aghion, P./Algan, Y./Cahuc, P./Shleifer, A. (2010): Regulation and Distrust. *Quarterly Journal of Economics*, 125(3), 1015-1049.
- Algan, Y./Cahuc, P. (2013): Trust, Growth and Well-being: New Evidence and Policy Implications. In: Aghion, P./Durlauf, S.N. (eds.): *Handbook of Economic Growth*, Vol. 2A, Kidlington and San Diego, 49-120.
- Anderson, J.E./Neary, P. (2005): *Measuring the Restrictiveness of Trade Policy*, Boston: MIT Press.
- Anderson, J.E./van Wincoop, E. (2004): Trade Costs. *Journal of Economic Literature*, 42/3, 691-751.
- Anner, M./Hossain, J. (2016): Multinational Corporations and Economic Inequality in the Global South: Causes, Consequences and Countermeasures in the Bangladeshi and Honduran Apparel Sector. In: Gallas, A./Herr, H./Hoffer, F./Scherrer, C. (eds.): *Combating Inequality: The Global North and South*, London/New York: Routledge, 95-110.
- Arkolakis C./Costinot, A./Rodríguez-Clare, A. (2012): New Trade Models, Same Old Gains? *American Economic Review* 2012, 102(1), 94-130.
- Arrow, K. (1972): Gifts and Exchanges. *Philosophy & Public Affairs*, 1(4), 343-362.
- Autor, D.H./David Dorn, D./Hanson, G.H. (2016): The China Shock: Learning from Labor Market Adjustment to Large Changes in Trade. *Annual Review of Economics*, 8(1).
- Baker, S.R./Bloom, N./Davis, S.J. (2016): Measuring Economic Policy Uncertainty. *The Quarterly Journal of Economics*. Vol. 131 (4), 1593-1636.
- Baldwin, R./Cave, M./Lodge, M. (2012): *Understanding Regulation: Theory, Strategy and Practice*. Oxford University Press.

- Baldwin, R.E./Francois, J.F./Portes, R. (1997): The costs and benefits of eastern enlargement: the impact on the EU and central Europe. *Economic policy*, 12(24), 125-176.
- Bartl, M./Irion, K. (2017): The Japan EU Economic Partnership Agreement: Flows of Personal Data to the Land of the Rising Sun. Amsterdam, Institute for Information Law (IViR). <https://www.ivir.nl/publicaties/download/Transfer-of-personal-data-to-the-land-of-the-rising-sun-FINAL.pdf> (05/12/2017).
- Bauer, M./Lee-Makiyama, H./van der Marel, E./Verschelde, B. (2014): The Costs of Data Localisation: Friendly Fire on Economic Recovery. ECIPE Occasional Paper No. 3/2014.
- Bauer M./Ferracane, M./Lee-Makiyama, H./van der Marel, E. (2016): Unleashing Internal Data Flows in the EU: An Economic Assessment of Data Localisation Measures in the EU Member States. ECIPE Policy Brief No.03/2016.
- Beghin, J./Disdier, A.-C./Marette, S. (2014): Trade Restrictiveness Indices in Presence of Externalities: An Application to Non-Tariff Measures, CESIFO WORKING PAPER NO. 4968, September 2014. https://ideas.repec.org/p/ces/ceswps/_4968.html (05/12/2017).
- Beghin, J./Disdier, A.-C./Marette, S./van Tongeren, F. (2012): Welfare costs and benefits of non-tariff measures in trade: a conceptual framework and application. *World Trade Review*, 11(3), 356-375.
- Bekkers, E./Francois, J.F. (2015): Calibrating a CGE model with NTBs that Incorporates Standard Models of Modern Trade Theory, Version May 2015.
- Bekkers, E./Francois, J.F./Rojas-Romagosa, H. (2015): Melting Ice Caps and the Economic Impact of Opening the Northern Sea Route, CPB Discussion Paper 307, CPB Netherlands Bureau for Economic Policy Analysis.
- Bendiek A./Schmieg, E. (2016): European Union Data Protection and External Trade. German Institute for International and Security Affairs, SWP Comments 11.
- Benz, S. (2017): Services trade costs: Tariff equivalents of services trade restrictions using gravity estimation. OECD Trade Policy Papers, No. 200, OECD Publishing, Paris.
- Berden, K./Francois, J./Thelle, M./Wymenga, P./Tamminen, S. (2009): Non-tariff measures in EU-US trade and investment – An economic analysis. ECORYS, Study for the European Commission, Directorate-General for Trade. http://trade.ec.europa.eu/doclib/docs/2009/december/tradoc_145613.pdf (05/12/2017).
- Berden, K./Francois, J. (2015): Quantifying Non-Tariff Measures for TTIP. Paper No. 12 in CEPTS-CTR project 'TTIP in the Balance' and CEPS Special Report No. 116 / July 2015.
- Black, J. (2002): Critical Reflections on Regulation, LSE Centre for the Analysis of Risk and Regulation Discussion Paper 4, London.
- Blaug, M. (1992): *The methodology of economics: Or, how economists explain*. Cambridge University Press.
- Borchert, I./Gootiiz, B./Mattoo, A. (2013): Policy Barriers to International Trade in Services: Evidence from a New Database. *The World Bank Economic Review*, 28(1), 162-188.
- Borchert, I./Gootiiz, B./Mattoo, A. (2012): Guide to the Services Trade Restrictions Database, World Bank Policy Research Working Paper 6108. The World Bank, Washington, D.C.
- Bratt, M. (2014): Estimating the bilateral impact of non-tariff measures (NTMs). Working Paper WPS 14-01-1, Université de Genève .
- Brown, P. (1992): The Failure of Market Failures. *Journal of Socio-Economics*. 21(1), 1-24.

Business Europe (2017): Letter to EC First Vice President. <https://www.bilaterals.org/IMG/pdf/businesseurope-letter.pdf> (05/12/2017).

CEPS/WTI (2016): Tomorrow's Silk Road: Assessing an EU-China Free Trade Agreement, Centre for Economic Policy Studies, Brussels.

Charnovitz, S. (2004): An Analysis of Pascal Lamy's Proposal on Collective Preferences, GW Law Faculty Publications & Other Works, Paper 406, http://scholarship.law.gwu.edu/faculty_publications/406 (05/12/2017).

Chen, N./Novy, D. (2012): On the measurement of trade costs: direct vs. indirect approaches to quantifying standards and technical regulations. *World Trade Review*, 11(3), 401-414.

Chester, M. V./Sperling, J./Stokes, E./Allenby, B./Kockelman, K./Kennedy, C./Baker, L. A./Keirstead, J./Hendrickson, C. T. (2014): Positioning infrastructure and technologies for low-carbon urbanization. *Earth's Future*, 2, 533-547.

Consumers Union (2013): A Review of Consumer Benefits from Corporate Average Fuel Economy (CAFE) Standards.

Cory, N. (2017): Cross-Border Data Flows: Where Are the Barriers, and What Do They Cost? Information Technology & Innovation Foundation. <http://www2.itif.org/2017-cross-border-data-flows.pdf> (05/12/2017).

Council of the European Union (2013): Directives for the negotiations of a Plurilateral Agreement on Trade in Services, Document 6891/13 ADD 1 RESTREINT UE/EU RESTRICTED, dated 8 March 2013, Brussels. <http://data.consilium.europa.eu/doc/document/ST-6891-2013-ADD-1-DCL-1/en/pdf> (05/12/2017).

Cristea, A./Hummels, D./Puzzello, L./Avetisyan, M. (2013): Trade and the greenhouse gas emissions from international freight transport. *Journal of Environmental Economics and Management*, 65(1), 153-173.

Davidson, A. (2015): The Commerce Department's Digital Economy Agenda. <https://www.commerce.gov/news/blog/2015/11/commerce-departments-digital-economy-agenda> (05/12/2017).

De Benedictis, L./Taglioni, D. (2011): The Gravity Model in International Trade. In: De Benedictis, L./Salvatici, L. (eds.): *The Trade Impact of European Union Preferential Policies*. Springer.

Dehejia, V./Samy, Y. (2009): Trade and Labor Standards: New Empirical Evidence. In: Kanbur, R./Svejnar, J. (eds.): *Labor Markets and Economic Development*. Abingdon, Oxon, UK.

Dietz, S./Stern, N. (2015): Endogenous growth, convexity of damage and climate risk: How Nordhaus framework supports deep cuts in carbon emissions. *Economic Journal*, 125, 574-620.

Eaton, J./Kortum, S. (2002): Technology, Geography, and Trade. *Econometrica*, 70(5), 1741-1779.

EC (2017): European Commission services'. Position paper on the Sustainability Impact Assessment in support of negotiations of the Trade in Services Agreement (TiSA), July 2017, http://trade.ec.europa.eu/doclib/docs/2017/july/tradoc_155776.pdf (05/12/2017).

EC (2016a): TiSA Factsheet http://trade.ec.europa.eu/doclib/docs/2016/september/tradoc_154971.doc.pdf (05/12/2017).

EC (2016b): Handbook for trade sustainability impact assessment. Second edition. http://trade.ec.europa.eu/doclib/docs/2016/april/tradoc_154464.PDF (05/12/2017).

EC (2016c): EU Energy, Transport, and GHG Emissions: Trends to 2050–Reference Scenario 2016. https://ec.europa.eu/energy/sites/ener/files/documents/20160713%20draft_publication_REF2016_v13.pdf (14/12/2017)

EC (2015a): Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *Better regulation for better results - An EU agenda*, COM(2015) 215 final, Strasbourg, http://ec.europa.eu/smart-regulation/better_regulation/documents/com_2015_215_en.pdf (06/12/2017)

EC (2015b): Trade for all. http://trade.ec.europa.eu/doclib/docs/2015/october/tradoc_153846.pdf (05/12/2017).

EC (2014a): The EU explained: Transport. https://europa.eu/european-union/file/1232/download_en?token=xCqI9RmY (05/12/2017).

EC (2014b): EU Energy, Transport, and GHG Emissions: Trends to 2050–Reference Scenario 2013. <http://ec.europa.eu/transport/sites/transport/files/media/publications/doc/trends-to-2050-update-2013.pdf> (05/12/2017).

EC (2012): Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *EU Regulatory Fitness*, COM(2012) 746 final, Strasbourg. https://ec.europa.eu/info/sites/info/files/eu-regulatory-fitness_dec2012_en_0.pdf (06/12/2017)

EC (2011): A Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system, White paper.

Ecorys (2017): SIA in support of the negotiations on a Transatlantic Trade and Investment Partnership (TTIP). Final report. <http://www.trade-sia.com/ttip/wp-content/uploads/sites/6/2017/03/TSIA-TTIP-Final-Report-03-17.pdf> (05/12/2017).

Ecorys/CEPR (2017a): Trade SIA in support of negotiations on a plurilateral Trade in Services Agreement (TiSA) – Final Report.

Ecorys/CEPR (2017b): Trade SIA in support of negotiations on a plurilateral Trade in Services Agreement (TiSA) – Annexes to the Final Report

ECSCA (2017) Shipping and Global Trade – Towards an EU external shipping policy. <http://www.ecsa.eu/images/PositionPapers2017/2017-02-27-ECSCA-External-Shipping-Agenda-FINAL.pdf> (05/12/2017).

EDRi (2016): TiSA leaks set alarm bells ringing. European Digital Rights. <https://edri.org/tisa-leaks-set-alarm-bells-ringing/> (05/12/2017).

Egger, P./Francois, J./Manchin M./Nelson, D.(2015): Non-tariff barriers. Economic Policy, 2.

Egger, P./Nigai, S. (2016): World-Trade Growth Accounting. CESifo Working Paper, No. 5831.

EP (2017): Current and Emerging Trends in Disruptive Technologies: Implications for the Present and Future of EU's Trade Policy. Study by Directorate-General for External Policies – Policy Department.

EP (2016a): TiSA: Parliament's recommendations. European Parliament News. <http://www.europarl.europa.eu/news/en/headlines/world/20160201STO12242/tisa-parliament-s-recommendations> (05/12/2017).

EP (2016b): Report containing the European Parliament's recommendations to the Commission on the negotiations for the Trade in Services Agreement (TiSA) (2015/2233(INI)).

ESA (2015): Digitally Deliverable Services Remain an Important Component of U.S. Trade. Department of Commerce Economics and Statistics Administration,

<http://www.esa.doc.gov/economic-briefings/digitally-deliverableservices-remain-important-component-us-trade>. (05/12/2017).

ETUC/CES (2013): Joint ITUC-ETUC statement on the goals and principles of the Trade in Services Agreement (TiSA). http://www.epsu.org/sites/default/files/article/files/ITUC-ETUC_statement_on_the_goals_and_principles_of_TiSA.pdf (05/12/2017).

Eurobarometer (2015): Factsheet Data Protection – June 2015.

Findlay, C./Warren, T. (2000): Impediments to Trade in Services: Measurement and Policy Implications, London: Routledge.

Fontagné, L./Guillin, A./Mitaritonna, C. (2011): Estimation of Tariff Equivalents for the Services Sectors. CEPII Working paper 2011-24.

Fontagne, L./Gourdon, J./Jean, S. (2013): Transatlantic trade: Whither partnership, which economic consequences?, CEPII, Policy Brief, 1, September.

Fontagné, L./Mitaritonna, C./Signoret, J. (2016): Estimated Tariff Equivalents of Services NTMs, CEPII, Working Paper 2016-20.

Francois, J. (1997): External Bindings and the Credibility of Reform. In: Galal, A./Hoekman, B. (eds.): Regional Partners in Global Markets, Cambridge University Press: Cambridge UK

Francois, J.F./Hoekman, B. (2010): Services trade and policy. Journal of Economic Literature, 48, 642-692.

Francois, J.F./Manchin, M./Norberg, H./Pindyuk, O./Tomberger, P. (2013): Reducing Transatlantic Barriers to Trade and Investment – An Economic Assessment, CEPR, Study for the European Commission, Final Project Report, Brussels.

Francois, J.F./Martin, W. (2003): Formula approaches for market access negotiations. The World Economy, 26(1): 1-28.

Francois, J.F./Pindyuk, O. (2013), 'Consolidated Data on International Trade in Services', IIDE Discussion Papers No. 2013-0101, Institute for International and Development Economics.

Geloso Grosso, M., et al. (2015): Services Trade Restrictiveness Index (STRI): Scoring and Weighting Methodology. OECD Trade Policy Papers, No. 177, Organization for Economic Co-operation and Development, Paris.

Ghodsi, M./Grübler, J./Reiter, O./Stehrer, R. (2017): The Evolution of Non-Tariff Measures and their Diverse Effects on Trade. Wiiw Research Report No. 419.

Gooris, J./Mitaritonna, C. (2015): Which Import Restrictions Matter for Trade in Service?. CEPII Working Paper 2017-33.

GSC (2014): Position paper on the trade in services agreement (TiSA), Global Services Coalition. https://servicescoalition.org/images/GSC_Statement_on_TiSA_Sept_2014_FINAL.pdf (05/12/2017).

Hanslow, K./Phamduc, T./Verikios, G. (2000): The Structure of the FTAP Model. Productivity Commission Research Memorandum 58. Australian Government – Productivity Commission, Melbourne.

Hakobyan, S./McLaren, J. (2016): Looking for Local Labor Market Effects of NAFTA. Review of Economics and Statistics, Volume 98(4), 728-741.

Hart, Oliver (1995): Firms, Contracts, and Financial Structure. Oxford University Press.

Head K./Mayer T. (2013): Gravity Equations: Workhorse, Toolkit, and Cookbook, CEPII Working Paper 27, 2013.

- Hertel, T.W. (2013): Global Applied General Equilibrium Analysis Using the Global Trade Analysis Project Framework. In: Dixon, P./Jorgenson, D. (eds.): Handbook of Computable General Equilibrium Models, North Holland: Elsevier, 815-876.
- Hodgson, G. (2015): On defining institutions: rules versus equilibria. *Journal of Institutional Economics*, Volume 11, Issue 3, 497-505.
- Hodgson, G. (1992): *Economics and Institutions: A Manifesto for a Modern Institutional Economics*, Cambridge.
- Hufbauer, G.C./Schott J.J./Wong, W.F. (2010): Figuring Out the Doha Round. *Policy Analysis in International Economics* 91, Peterson Institute for International Economics.
- IEA (2014): Energy Policies of IEA Countries – European Union. https://www.iea.org/publications/freepublications/publication/EuropeanUnion_2014.pdf (05/12/2017).
- IDEC (2014): The Trillion Dollar Question: How trade agreements can maximise the economic potential of data in the networked economy and support the Internet as the world's trading platform. International Digital Economy Alliance.
- Irion, K./Yakovleva, S./Bartl, M. (2016): Trade and Privacy: Complicated Bedfellows? How to achieve data protection-proof free trade agreements. Independent study commissioned by BEUC et al., published 13 July 2016, Amsterdam, Institute for Information Law (IViR).
- Jafari, Y./Tarr, D.G. (2014): Estimates of Ad Valorem Equivalents of Barriers against Foreign Suppliers of Services in Eleven Services Sectors and 103 Countries. World Bank Policy Research Working Paper 7096. The World Bank, Washington D.C.
- Jasanoff, S. (2013): Epistemic Subsidiarity: Coexistence, Cosmopolitanism, Constitutionalism. *European Journal of Risk Regulation*, 2, 133-141.
- Jasanoff, S. (2007): *Designs on Nature. Science and Democracy in Europe and the United States*, Princeton.
- Kapp, K.W. (1963): *The Social Costs of Business Enterprise*, second edition, Nottingham: Spokesman
- Kee, H./Nicita, A./Olarreaga, M. (2009): Estimating trade restrictiveness indices. *Economic Journal*, 119, 172-199
- Kelsey, J. (2017): TiSA. Foul Play, UNI Global Union, <http://www.thefutureworldofwork.org/media/35389/tisa-foul-play-uni-global-union-web-spreads.pdf> (05/12/2017).
- Kommerskollegium (2014): No Transfer, No Trade – the Importance of Cross-Border Data Transfers for Companies Based in Sweden. Kommerskollegium – The National Board of Trade.
- Krajewski, M. (2016a): Domestic regulation and services trade: Lessons from regional and bilateral free trade agreements. In: Sauvé, P./Roy, M. (eds.): *Research Handbook on Trade in Services*. Edward Elgar, Cheltenham, UK and Northampton, MA, USA.
- Krajewski, M. (2016b): Model clauses for the exclusion of public services from trade and investment agreements. Study commissioned by the Chamber of Labour Vienna and the European Federation of Public Service Unions, February 2016. [https://media.arbeiterkammer.at/wien/PDF/Publikationen/Model clauses for the exclusion of public services neu.pdf](https://media.arbeiterkammer.at/wien/PDF/Publikationen/Model%20clauses%20for%20the%20exclusion%20of%20public%20services%20neu.pdf) (28/12/2017).
- Krugman, P. (2014): No Big Deal. *New York Times*, 24/02/2014. <https://www.nytimes.com/2014/02/28/opinion/krugman-no-big-deal.html> (05/12/2017).
- Kucera, David (Ed.) (2007): *Qualitative Indicators of Labor Standards: Comparative Methods and Applications*. Dordrecht

Lamy, P. (2004): The Emergence of Collective Preferences in International Trade: Implications for Regulating Globalisation', 15 September 2004, http://www.google.at/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0CCUQFjAAahUKEwiLI_KBporGAhXKWBQKHbH5ACI&url=http%3A%2F%2Ftrade.ec.eu-ropa.eu%2Fdoclib%2Fhtml%2F118929.htm&ei=ZON6VYvVH8qxUb-Hzg5AC&usq=AFQjCNEks3i3-XzOJAwWJzB-t1jQP10evA&bvm=bv.95515949,d.d24 (05/12/2017).

Lloyd, P.J./Zhang, X.G. (2006): The Armington model. Productivity Commission Staff Working Paper. Australian Government - Productivity Commission, Melbourne.

López González, J./Jouanjean, M. (2017): Digital Trade: Developing a Framework for Analysis. OECD Trade Policy Papers, No. 205, OECD Publishing, Paris.

De Benedictis, Luca/Taglioni, Daria (2011): The Gravity Model in International Trade. Chapter 4. In: De Benedictis, L./Salvatici, L. (eds.): The Trade Impact of European Union Preferential Policies. Springer.

Martinez-Alier, J./Munda, G./O'Neill, J. (1998): Weak comparability of values as a foundation for ecological economics. *Ecological Economics*, 26, 277-286.

McKinnon, A. (2016): Freight Transport in a Low-Carbon World - Assessing Opportunities for Cutting Emission. TR NEWS 306 NOVEMBER–DECEMBER 2016.

MGI (2016): Digital Globalization: The New Era of Global Flows. McKinsey Global Institute.

Molinueva, M./Sáez, S. (2014): Regulatory Assessment Toolkit: A Practical Methodology for Assessing Regulation on Trade and Investment in Services. The World Bank, Washington D.C.

Moore, F./Frances, D. (2015): Temperature impacts on economic growth warrant stringent mitigation policy. *Nature Climate Change*, 5, 127-131.

Munda, G. (2008): Social Multi-Criteria Evaluation for a Sustainable Economy, Springer: Heidelberg.

Myant, M./O'Brien R. (2014): The TTIP's impact: bringing in the missing issue, Working Paper 2015.1, Brussel: European Trade Union Institute.

Nölke, A./Claar, S. (2012): Tiefe Integration: konzeptuelle Grundlagen. *Journal für Entwicklungspolitik / Austrian Journal for Development Studies*, XXVIII(2), 8-27.

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

OECD (2015): Aligning Policies for a Low-carbon Economy, Paris.

OECD (2010): Why is administrative simplification so complicated? Looking beyond 2010, Organization for Economic Cooperation and Development, Paris.

OECD (2005): Employment Outlook 2005. Organization for Economic Co-operation and Development, Paris.

OECD/ITF (2015): ITF Transport Outlook 2015. Organization for Economic Co-operation and Development, Paris.

Ogus, A. (1994): Regulation: Legal Form and Economic Theory. Oxford: Hart Publishing.

OIRA (2013): Report to Congress on the Benefits and Costs of Federal Regulations and Unfunded Mandates on State, Local, and Tribal Entities. Office of Information and Regulatory Affairs.

- Posner, E.A./Sunstein, C.R. (2017): Moral commitments in cost-benefit analysis, Coase-Sandor Institute for Law and Economics Working Paper No. 802, The University of Chicago, Chicago.
- Prosser, T. (2006): Regulation and Social Solidarity. *Journal of Law and Society*, 33(3), 364-387.
- Raza, W./Grumiller, J./Taylor, L./Tröster, B./von Arnim, R. (2014): ASSESS_TTIP: Assessing the claimed benefits of the Transatlantic Trade and Investment Partnership. See: http://quengl.eu/uploads/plenary-focus-pdf/ASSESS_TTIP.pdf (05/12/2017).
- Raza, W./Tröster, B./von Arnim, R.(2016): ASSESS_CETA: Assessing the claimed benefits of the EU-Canada Trade Agreement (CETA). Study for AK Wien. https://media.arbeiterkammer.at/wien/PDF/studien/ASSESS_CETA_Final_Report_EU_03082016_web_8_16.pdf (05/12/2017).
- Rodrik, D. (2017): Populism and the economics of globalization. Harvard University. https://drodrik.scholar.harvard.edu/files/dani-rodrik/files/populism_and_the_economics_of_globalization.pdf (05/12/2017).
- Rodrik D. (2012): Who Needs the Nation-State? Roepke Lecture in Economic Geography. *Economic Geography*, 89(1), 1-19.
- Rodrik, D. (2011): *The Globalization paradox: Democracy and the future of the world economy*: New York: W.W. Norton.
- Rodrik, D. (2004): *Industrial Policy for the Twenty-first Century*. Discussion Paper 4767. London: Centre for Economic Policy Research.
- Rodrik, D. (1992): The limits of trade policy reform in developing countries. *The Journal of Economic Perspectives*, 6(1): 87-105.
- Rodrik, D. (1991): Policy uncertainty and private investment in developing countries. *Journal of Development Economics*, 36(2), 229-242.
- Rueda-Cantuche, J.M./Kerner, R./Kutlina-Dimitrova, Z./Cernat, L. (2016): Trade in Services by GATS Modes of Supply: Statistical concepts and first estimates. DG Trade, Chief Economist Note, Issue 3, November 2016.
- Sáez, S./Taglioni, D./van der Marel, E./Hollweg, C.H./Zavacka, V. (2014): *Services in Trade – A Toolkit for competitiveness diagnostics*. The World Bank, Washington D.C.
- Scherrer, C. (2017): Economic Arguments for International Workers' Rights. In: Scherrer, C. (ed.): *Enforcement Instruments for Social Human Rights along Supply Chains*, Augsburg, 6-17.
- Schlueter, S./Rau, M.-L./Wieck, C./Humphrey, J./Colen, L./Heckelei, T. (2009): Analytical framework for NTM-Impact project', Working Paper 09/02, Projekt FP7NTM-IMPACT, December 2009. www.ntm-impact.eu (05/12/2017).
- Sims R. et al. (2014): Transport. In: Edenhofer, O. et al. (eds.): *Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.
- Sinclair, S. (2017): *TISA Troubles: Services, Democracy and Corporate Rule in the Trump Era*. Rosa Luxemburg Stiftung and Canadian Centre for Policy Alternatives, Brussels. http://www.rosalux.eu/fileadmin/user_upload/Publications/2017/TISA-UK.pdf (05/12/2017).
- Skidelsky, R./Skidelsky, E. (2012): *How Much is Enough?: Money and the Good Life*, New York: Other Press.

- Sperling D./Nichols, M. (2012): California's Pioneering Transportation Strategy. Issues in Science and Technology. <http://issues.org/28-2/sperling-5/> (05/12/2017).
- Stiglitz, J. (2016): The state, the market, and development. WIDER Working Paper 2016/1, Helsinki; <https://www.wider.unu.edu/sites/default/files/wp2016-1.pdf> (05/12/2017).
- Taylor, L./von Arnim, R. (2006): Modelling the Impact of Trade Liberalisation. Oxfam International Research Report.
- Tuthill, L.L. (2016): Cross-border data flows: What role for trade rules? In: Sauvé, P./Roy, M. (eds.): Research Handbook on Trade in Services. Edward Elgar, Cheltenham, UK and Northampton, MA, USA.
- UNCTAD (2016): Data protection regulation and international data flows: Implications for trade and development. United Nations Conference on Trade and Development, Geneva.
- UNCTAD (2013): Non-Tariff Measures to Trade: Economic and policy issues for developing countries. United Nations Conference on Trade and Development, Geneva.
- UN ESCAP (2012) The Gravity Model of International Trade: A User Guide. <http://www.unescap.org/resources/gravity-model-international-trade-user-guide> (15/12/2017).
- Van den Bergh, J./Botzen, W. (2014): A lower bound to the social cost of CO2 emissions. Nature Climate Change, 4, 253-258.
- Van der Marel, E./Shepherd, B. (2013): Services Trade, Regulation and Regional Integration: Evidence from Sectoral Data. World Economy, 36, 1393-1405.
- Van Tongeren, F./Disdier, A.C./Komorovska, J./Marette, S./v. Lampe, M. (2010): Case Studies of Costs and Benefits of Non-Tariff Measures: Cheese, Shrimp and Flowers. OECD Food, Agriculture and Fisheries Working Papers, No. 28, OECD Publishing, Paris.
- Wikileaks (2016): TiSA chapters on maritime transportation and road transportation. <https://wikileaks.org/tisa/document/> (05/12/2017).
- Wikileaks (2015): TiSA chapter on Electronic Commerce. https://wikileaks.org/tisa/document/20151001_Annex-on-Electronic-Commerce/page-3/#pagination (05/12/2017).
- White, L.G. (2017): In Defense of Regulatory Diversity, October 16, 2017. <https://www.moneyandbanking.com/commentary/2017/10/14/in-defense-of-regulatory-diversity> (05/12/2017).
- World Bank (2013): Doing Business Report 2014 – Understanding Regulations for Small and Medium-Size Enterprises. The World Bank, Washington D.C.
- World Economic Forum (2011): Personal Data: The Emergence of a New Asset Class.
- WTO (2012): Detailed Presentation of Measuring Trade in Services. WTO E-Learning. https://www.wto.org/english/res_e/statistics_e/services_training_module_e.pdf (05/12/2017).

