European University Institute

ROBERT SCHUMAN CENTRE FOR ADVANCED STUDIES

EUI WORKING PAPERS

RSCAS 2017/47
Robert Schuman Centre for Advanced Studies
Global Governance Programme-280

Services Trade Liberalization, Regulation and Deep Integration Agreements

Matteo Fiorini and Bernard Hoekman

European University Institute
Robert Schuman Centre for Advanced Studies
Global Governance Programme

Services Trade Liberalization, Regulation and Deep Integration Agreements

Matteo Fiorini and Bernard Hoekman

EUI Working Paper **RSCAS** 2017/47

ISSN 1028-3625

Printed in Italy, September 2017
European University Institute
Badia Fiesolana
I – 50014 San Domenico di Fiesole (FI)
Italy
www.eui.eu/RSCAS/Publications/
www.eui.eu
cadmus.eui.eu

Robert Schuman Centre for Advanced Studies

The Robert Schuman Centre for Advanced Studies (RSCAS), created in 1992 and directed by Professor Brigid Laffan, aims to develop inter-disciplinary and comparative research and to promote work on the major issues facing the process of integration and European society.

The Centre is home to a large post-doctoral programme and hosts major research programmes and projects, and a range of working groups and *ad hoc* initiatives. The research agenda is organised around a set of core themes and is continuously evolving, reflecting the changing agenda of European integration and the expanding membership of the European Union.

Details of the research of the Centre can be found on:
http://www.eui.eu/RSCAS/Research/

Research publications take the form of Working Papers, Policy Papers, Policy Briefs, Distinguished Lectures, Research Project Reports and Books.

Most of these are also available on the RSCAS website:
http://www.eui.eu/RSCAS/Publications/

The Global Governance Programme at the EUI

The Global Governance Programme is one of the flagship programmes of the Robert Schuman Centre for Advanced Studies at the European University Institute (EUI). It aims to: build a community of outstanding professors and scholars, produce high quality research and, engage with the world of practice through policy dialogue. At the Global Governance Programme, established and early career scholars research, write on and discuss, within and beyond academia, issues of global governance, focussing on four broad and interdisciplinary areas: European, Transnational and Global Governance; Global Economics; Europe in the World; and Cultural Pluralism.

The Programme also aims to contribute to the fostering of present and future generations of policy and decision makers through its unique executive training programme, the Academy of Global Governance, where theory and "real world" experience meet. At the Academy, executives, policy makers, diplomats, officials, private sector professionals and academics, have the opportunity to meet, share views and debate with leading academics, top-level officials, heads of international organisations and senior executives, on topical issues relating to governance.

For more information: http://globalgovernanceprogramme.eui.eu

Abstract

This paper investigates the role of different types of regulation in shaping the impact of services trade reforms. We find that measures of economic governance impact on the magnitude of the net benefits of market opening, and that the moderating effects associated with the quality of horizontal (cross-cutting) regulation may differ from that related to sector-specific regulation. For some services activities, market access liberalization can substitute for weak regulation/governance. For others there is a complementary relationship, implying that for market opening to have the greatest benefits it must be accompanied with measures to improve economic governance performance. Our findings suggest that from a national welfare perspective deep integration efforts need to consider the relationship between market access and regulatory regimes. The fact that our empirical findings are obtained for EU member states – an economic union – demonstrates the general salience of our findings for the design of deep economic integration arrangements.

Keywords

Services trade liberalization, regulation, economic governance, deep integration

JEL Classification: F61, L8, O43

1. Introduction[*]

The focus of trade agreements increasingly has turned to so-called deeper integration of markets (Dür, Baccini and Elsig, 2014). This contrasts with traditional, shallow integration trade agreements that center on the elimination of import tariffs and classical nontariff barriers (NTBs) such as quantitative restrictions. The steady decline in applied import tariffs around the world, in conjunction with more wide-ranging opening of markets to foreign investment and technological changes led to major changes in the organization of international production—exemplified by the rise of international value chains and cross-hauling of products and investment (Baldwin, 2016). This changed incentives of business interests towards the conclusion of new trade agreements (see, e.g., Eckhart and Poletti, 2016 for the case of the EU) and to include trade in services, investment policies and rules of the game that reduce the prevalence and costs of regulatory heterogeneity (Hoekman and Sabel, 2017). In parallel, other interest groups sought to include disciplines relating to social, political and human rights into trade agreements as well as provisions relating to environmental regulation. This reflects different considerations, including a desire to 'level the playing field', address nonpecuniary negative spillovers, export 'good practice' norms and internationally agreed standards, and to safeguard the ability of governments to regulate economic behavior.[1] Whatever the motivation, there is now a greater focus on "behind the border" regulatory policies in trade relations than in the past.

The expansion in focus to addressing both market access and regulatory matters – towards deeper economic integration initiatives – has led to greater contestation of trade agreements. The backlash against the Comprehensive Economic and Trade Agreement (CETA) between Canada and the EU, and the Transatlantic Trade and Investment Partnership (TTIP) talks is illustrative. One reason for this is a concern by nongovernmental groups regarding a race to the bottom in product standards—illustrated by opposition in the EU to the prospect of being able to consume US chicken that has been washed with a chlorine solution. Another reason is a worry about "unfair competition" that may result if trading partners have weaker labor and environmental standards and thus lower costs of production. Yet another concern relates to inclusion of standards of protection for foreign investment and provisions that allow foreign investors to contest regulatory measures that result in "less favorable treatment" than what obtained when they initially made an investment. The associated enforcement mechanism – arbitration of investor-State disputes – became a focal point for widespread opposition to CETA and TTIP in the EU (Young, 2016).

These issues are not new (De Bièvre and Poletti, 2017). Disciplines on product standards have been incorporated into trade agreements for some 40 years, dating back to the late 1970s (Mavroidis, 2016). Concerns about unfair international competition have a much longer history. What is new is that the focus of cooperation has broadened to include trade in services and associated cross-border movement of service providers, more generally foreign direct investment (FDI) policies, and regulatory regimes that act to restrict the ability (raise costs) for foreign firms to compete on the market. These are policy

---

[*] An initial version of this paper was prepared as part of the European Commission's DG ECFIN fellowship initiative 2016-17. Financial support from ECFIN is gratefully acknowledged. We are indebted to Josefa Monteagudo for suggestions on different drafts and for sharing the data on transposition of the EU Services Directive, and to participants in the 2017 ECFIN Annual Research Conference in Brussels for helpful comments.

[1] In the case of the EU, see e.g., Lavanex (2014), Lechner (2016) and Young (2015) on the export of norms and values; Bartels (2012) and van den Putte and Orbie (2015) on the substance and drivers of inclusion of labor and related rights into EU agreements, and Spilker and Böhmelt (2013), Postnikov and Bastiaens (2014) and Donno and Neureiter (2017) for empirical assessments of whether they have an impact. There is no consensus on the latter question in the literature, which finds that much depends on controlling for selection bias, market power and the type of cooperation that is pursued (e.g., hard vs. soft law; linkages to development assistance).

areas where the approach traditionally taken in trade agreements – a reliance on basic nondiscrimination (national treatment) disciplines to ensure that commitments to reduce import tariffs could not be undercut through discriminatory application of domestic policies (so-called concession erosion) – is not sufficient. Instead, they involve elements of positive integration: cooperation aimed at ensuring that regulation satisfies minimum (common) standards, while at the same time ensuring that regulators have the freedom to impose stricter standards if they deem this to be necessary to assure health, safety or prudential objectives (Lester and Barbee, 2013; Mavroidis, 2016).

In this paper we focus on services trade liberalization. This is an area where progress has been slow – many trade agreements cover services but most do so in a rather unambitious manner (Roy, 2016). There are a number of potential reasons for this (Hoekman and Mattoo, 2013). Liberalization involves both a market access dimension (removing discriminatory barriers against foreign firms) and a mix of rent-creating regulatory policies and measures aiming to address market failures. The latter are more complicated to address because of the need to identify and differentiate between successful rent-creation by domestic providers (e.g., regulation that is designed to restrict entry) and measures that aim to address market failures (e.g., information asymmetries).

Regulation affecting the operation of services sectors is both sector-specific and horizontal – impacting on all sectors, both goods and services-producing activities. Recent research has documented that the latter are important in affecting the size of the potential net gains from services liberalization (Beverelli et al. 2017). This complements similar findings for merchandise trade reforms and investment liberalization.[2] An implication is that prevailing domestic economic governance institutions should be considered in the design and implementation of trade agreements. This is only done to a limited extent in practice – most of the focus in EU trade negotiations is on human and social rights and protection of the environment, not on more specific dimensions of economic regulation and related institutions (Fiorini and Hoekman, 2017). This gives rise to a number of questions, including whether trade agreements should include provisions that address economic governance and if so how. But independent of whether it makes sense to do so, if it is the case that regulatory regimes and institutions have a significant bearing on the gains from liberalization the implication is that a greater focus on understanding these relationships is called for.

We assess the role of horizontal and sector-specific governance institutions in shaping the effects of policies affecting trade in producer services. Horizontal components of economic governance include barriers to entrepreneurship – such as complex and cumbersome administrative burdens on start-ups – and the extent of state-ownership and control of the economy. Sectoral dimensions comprise specific regulatory regimes that apply to services industries (e.g., to ensure access to network infrastructure, bottleneck facilities or interconnection; existence of an independent regulatory body; dedicated mechanisms to contest regulatory decisions; or whether the industry is permitted to regulate itself and define/control the conditions of entry as for certain professional services). We consider that services trade openness may be a substitute for pro-competitive domestic (horizontal and/or sectoral) regulation or a complement. Understanding whether and when there is likely to be complementarity or substitutability between services trade openness and different types of governance institutions is important for policy, as it can inform the design and sequencing of services trade reform commitments, in particular whether this should be preceded or accompanied by economic governance reforms and institutional strengthening.

Our focus is on the downstream effects of services trade policy, i.e. on how it impacts the economic performance (productivity) of manufacturing sectors that use services as intermediate inputs. We recognize this restricts the scope of the analysis to just one dimension of the potential impact of such policies on the economic performance of countries. However, it is one that has been a central focus in the recent economic literature on the effects of sector specific trade policies (e.g., Amiti and Konings,

[2] E.g., Rodriguez and Rodrik (2001); Rajan and Lee (2007); Busse and Hefker (2007), Ahsan (2013), Dort et al. (2014).

2007; Barone and Cingano, 2010; Arnold et al., 2016; Beverelli et al., 2017). Our analysis contributes to this line of research by exploring the relationship between different dimensions of domestic regulatory policies and trade policy instruments using the type of analytical framework employed in the literature.

The empirical analysis centers on the EU. One reason is because the EU has done the most to pursue deep agreements with trading partners – recent examples include Canada and Japan – but more important is that the EU is the deepest integration arrangement extant, with member states participating in an economic union with full freedom of movement for goods, services, investment and people. The EU treaties and the many directives and regulations supporting the creation and operation of the Single Market imply a degree of economic integration that is much greater than what can attained with third countries. One would therefore expect that the findings of Beverelli et al. (2017), a recent large N, cross-section-based analysis using new measures of services trade policy, that governance and regulatory quality effects the gains from services liberalization would apply less to EU countries. The data reveal however that there is significant heterogeneity across EU member states in the quality of domestic economic governance and that EU countries do not have identical services trade policies. Fiorini and Hoekman (2017) show that these differences affect the impacts of services trade reforms enacted at the EU level and can result in significant asymmetry in the magnitude of the potential net benefits of EU services liberalization. Such distributional effects may have implications for political support for trade agreements across EU member states and may help explain some of the recent opposition in the EU to deep trade integration initiatives with third countries such as CETA and TTIP.

The plan of the paper is as follows. Section 2 discusses the relationship between upstream services trade policy and downstream industry performance and the different roles regulatory and governance institutions may have in moderating the effects of services trade policy. We also present some descriptive evidence on relevant dimensions of economic governance in the EU. Section 3 presents the econometric framework and the data. Section 4 discusses the results of the empirical analysis. Section 5 concludes with a discussion of implications of our findings for the design of trade agreements.

2. Background

2.1 Services trade reforms and downstream productivity

Services such as finance, insurance, ICT services, transport and logistics are inputs into many production processes. Because of their relevance as inputs for downstream producers they are often referred to as producer or business services. Such services differ from manufactured intermediate inputs (parts and components). A key economic feature of producer services inputs is the role they play in coordinating and controlling complex production activities that are distributed over time and space. For instance, ICT, transport and logistics services connect workers and/or capital units across space; financial services allow firms to fund and manage the risk of routine as well as complex production operations over time. These services have become more important as businesses engage in international production and participate in global value chains (GVCs) that require the coordination of activities of different firms located in different geographical regions. As “facilitators” of unbundled and fragmented production processes, producer services inputs directly affect the feasibility of the associated specialization and the scale of downstream economic activity (Francois, 1990).

Using linked input-output tables for OECD countries, Miroudot et al. (2009) find that 73% of all services trade between 1995 and 2005 was accounted for by trade in services inputs. This is a much bigger figure than in the case of trade in goods, where manufactured intermediate inputs accounted for 56% of total trade flows in the same period. These patterns suggest that international trade in services

is an important channel for firms to gain access to services inputs and/or reduce their production/operating costs. Restrictive trade and investment policies that reduce competition on services markets will have adverse consequences for the performance (competitiveness) of downstream manufacturing sectors by reducing and/or raising the cost of such access.

Market access policies for producer services impact on the productivity of downstream firms or sectors through their effect on services sector performance. The latter is also influenced by regulatory policies that help determine the degree of competition in the relevant markets. Numerous studies have found that domestic regulation of services markets can have sizable impacts on downstream productivity and/or merchandise export performance.[3] This line of research is consistent with the recent literature on liberalization of import tariffs on intermediate goods, which focuses on the downstream effects of input tariff reductions. Amiti and Konings (2007) show that reducing input tariffs by 10% increases productivity of Indonesian firms importing these inputs by 12%. Lower input tariffs can have a positive causal effect on downstream firms' productivity by giving them access to more varieties or higher quality inputs and by allowing firms to learn from the foreign technology embedded in imported inputs. Analogous evidence comes from research on Indian firms. Goldberg et al. (2010) find that lowering input tariffs in India accounted for 31% of the new products introduced by Indian firms in the 1987-97 period. De Loecker et al. (2016) show that input tariff liberalization reduced marginal costs of downstream Indian producers. Similar empirical research on the effects of services trade restrictions identify sizable positive effects of services trade liberalization for the productivity and export performance of firms operating in downstream industries (notably manufacturing) – see, e.g., Arnold et al. (2011) for the case of Czech Republic.

2.2 The role of governance institutions

It is well established in the economic literature that, in the long run, the quality of institutions affects the level of comparative development (Acemoglu, Johnson, and Robinson, 2001) and that economic governance and related institutions represent an important source of comparative advantage in certain industries, especially those that are more contract-intensive (see Nunn and Trefler, 2014 for a survey). There is also substantial agreement in the literature that the benefits from trade liberalization depend on country-specific conditioning factors, notably the quality of local governance institutions (see Rodriguez and Rodrik, 2001; Freund and Bolaky, 2008; and Ahsan, 2013). The quality of economic governance institutions can also be expected to affect the downstream effects of services trade reforms.

Beverelli et al. (2017) find that in the short and medium run, governance variables such as the strength of the rule of law, control of corruption and the quality of domestic regulation can shape the downstream effects of services trade policies. They conclude that removing barriers to cross-border services trade will have less beneficial effects on performance in cases where pervasive corruption and weak governance generates excessive economic uncertainty and insecurity. This is consistent with Anderson and Marcouiller (2002) and Ranjan and Lee (2007), who find that uncertainty created by low-quality-institutions reduces inward trade flows. An implication is that eliminating restrictions on inward foreign direct investment (FDI) may fail to generate positive downstream effect if weak governance institutions in the host country are the binding constraint and discourage foreign firms from responding to the liberalization (or, if they enter, induces them to operate inefficiently, use outdated technology, etc. – see, e.g., Busse and Hefeker, 2007; Dreher and Grassebner, 2013; and Dort, Méon, and Sekkat, 2014).

The literature analyzing the interaction between measures of governance quality such as control of corruption and rule of law as defined in the Worldwide Governance Indicators database and similar compilations suggests there is a complementary relationship between the quality of domestic

[3] Examples include Barone and Cingano (2011), Bourlès et al. (2013) and Hoekman and Shepherd (2017).

governance and the magnitude of the benefits of market access liberalization, i.e., better governance enhances the positive effects of liberalization. The various governance indicators used in this literature are proxies for the quality of the investment climate in a country. They are horizontal in nature, in the sense that affect activities in all sectors. They are likely to capture to a greater or lesser extent the effects of more specific dimensions of economic governance that determine the conditions of entry into a market. Examples include the scope of state owned enterprises (SOEs) in the economy, government involvement in price setting (price controls), licensing and permit systems, and services sector specific regulation. Determining the extent to which the latter types of economic governance and regulatory policies impact on the benefits of services trade liberalization is important from a policy perspective as it may be both easier to change sector or activity-specific regulation than it is to improve rule of law or to combat corruption and, as important, more feasible to do so in the short run.

Broad governance variables and associated institutions that determine the extent to which the rule of law prevails are entrenched in the economic system and effectively are likely to be exogenous to short and even medium term economic policy reforms such as market access opening. Improving rule of law and controlling corruption requires time as it entails general systemic reforms in public administration, the civil service and political institutions. This is less the case for sector-level regulation or regulatory measures that affect entry or conduct of firms. Insofar as the complementarity relationship found in Beverelli et al. (2017) between broad governance variables and services trade reforms holds for narrower types of economic governance this would imply policy reforms should center on the latter so as to complement services trade liberalization initiatives. Alternatively, it may be the case that market opening can substitute for sectoral governance reforms. If so, it may be appropriate to prioritize services trade liberalization.

To illustrate, consider the case of barriers to entrepreneurship captured by the degree of complexity and clarity of the regulatory requirements pertaining to the establishment and operation of firms. Low quality economic governance reflected in complex and ambiguous regulations that are difficult to account for in business plans may generate uncertainty, a need to plan for unpredictable shocks to production processes and as a result deter investment by firms. Large foreign services providers, equipped with a superior technology and greater resources than domestic providers of similar services, may be able to deal with such a regulatory environment. If so, this gives rise to a substitutability relationship between domestic governance and market access reforms: opening the market to foreign providers can substitute for good domestic governance in terms of increasing the quality, variety and/or decreasing the price of services inputs used by domestic manufacturing firms.

The extent to which good domestic economic governance is a necessary condition for strong positive downstream effects of services market access reforms is an empirical question. The relationship between the performance of regulatory institutions and changes in services trade policy will be determined in part by how restrictive horizontal (cross-cutting) regulatory measures are in constraining new entry and reducing the ability of firms to operate profitably once they have established, and in part by the types of market failure that motivates sector-specific regulation.[4]

Focusing on the first dimension, the impact on regulation on entry and/or operating costs will vary. Some types of regulation – e.g., a simple registration requirement – will only impose a small burden on operators. Other types of regulation may be very difficult for new entrants to overcome and can even prohibit entry – e.g., a ban on investment in complementary infrastructure facilities such as a warehouse/logistics center; highly restrictive economic needs tests; or regulation that reserves certain types of transactions to a SOE. The benefits of reducing services trade barriers (i.e., policies that discriminate against foreign providers and foreign services) will be affected by the applicable measures regulating entry. As long as these are not prohibitive, the most (more) efficient foreign

[4] See Copeland and Mattoo (2008) for a discussion of different rationales for regulation of services activities.

providers can be expected to be able to satisfy the regulatory requirements. These may raise costs above what they would be if, for example, regulatory cooperation allowed mutual recognition or equivalence, but some level of trade can be expected to occur. In this case market access can be a substitute for regulatory reform. If, however, regulation is such as to essentially preclude entry – e.g., because of state control of prices or the existence of SOEs that dominate (segments of) the market – services trade liberalization may not have much of an effect in changing incentives to enter the market. There is then more likely to be a complementary relationship between services trade policy and sector-level regulation: to generate pro-competitive dynamics reforms will need to target both policy areas.

Turning to sector-specific economic governance, similar forces may arise as with cross-sectoral (horizontal) regulatory regimes but there is likely to be an additional dimension: the extent to which different types of market failures (or, from a normative perspective should) motivate regulation. For example, in the case of services sectors where there are significant network externalities there may be a rationale for public provision of (investment in) infrastructure and regulation of the relevant network to ensure interconnection and access. In other sectors, market failure may reflect information asymmetries. In case of transport and telecommunications services, network infrastructure considerations are important. Weak regulatory regimes that permit exploitation of market power by incumbent operators can prohibit entry by new operators. Insofar as this is the case, it cannot be offset by services trade liberalization as it will often be prohibitively expensive for new entrants to develop their own network infrastructure. The implication is that liberalization will not allow foreign firms to overcome a government's failure to put in place and enforce pro-competitive regulation. Absent such regulation, market access liberalization can be expected to have smaller positive downstream productivity effects. There is then complementarity between the quality of regulation and the magnitude of the potential benefits of services trade liberalization.

Such complementarity is less likely to arise for producer services where network externalities are less prevalent or do not figure at all. In the case of business and professional services, for example, the main rationale for regulation is to deal with problems of asymmetric information. In cases where domestic regulation is ineffective in addressing such problems – e.g., by putting in place certification processes that allow low quality providers to operate, create moral hazard, or permitting regulatory systems that create significant rents for domestic incumbents – liberalization of access to the market for foreign providers may allow such regulatory failures to be overcome to some extent. For example, they can establish a reputation for quality by leveraging foreign regulatory certification and/or international certification (such as compliance with ISO standards). As long as domestic regulation does not take the form of a binding quantitative restriction on entry – which presumably is something that will be the focus of market access negotiations, the result is likely to be a substitution relationship between domestic sectoral regulation/governance and market access reform.

In addition to the horizontal and sector-specific dimensions of economic regulation, a feature of the governance—market access relationship that is relevant in the EU context is the role of common EU institutions and EU law. EU membership is associated with a set of obligations to apply EU law and regulation and to pursue shared values. In the case of services, the Single Market Strategy and associated EU directives, combined with monitoring of implementation by the European Commission; the possibility of infringement procedures and challenging specific policies before the Court of Justice of the European Union; and, ultimately, penalties for non-compliance are likely to affect the extent to which domestic regulatory regimes and economic governance institutions affect market access liberalization across EU member states. Understanding whether such EU-specific dimensions of governance have a complementary or substitution relationship with reforms aimed at enhancing market access is a relevant question from the perspective of the design of deep integration agreements in general. However, it is also relevant for the EU itself in the pursuit of deep trade agreements with third countries.

In the case of complementarity, implementation of EU Directives may increase the potential gains from liberalizing services markets. In such cases member states with better governance may

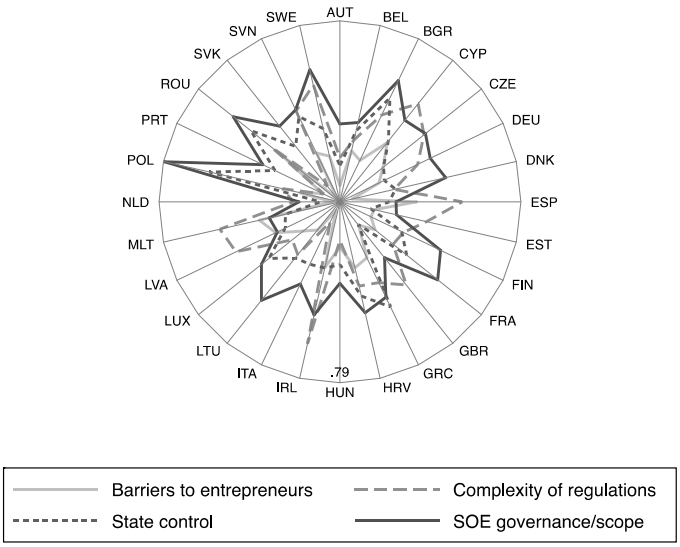
experience larger economic gains from market access liberalization than countries with weaker governance. Insofar as the latter are also countries with lower per capita income levels, the implication is an asymmetric distribution of the gains from services trade reforms that are agreed in external trade negotiations by the EU – richer countries with above average governance will benefit more. This has obvious implications for public support for EU trade agreements. An implication is that policy efforts should focus on improving attainment of common regulatory standards before or in parallel with external market access liberalization for services. In contrast, in the substitutability case, there is greater potential for realizing gains from services liberalization in the short run in EU member states with relatively low levels of regulatory performance and incomplete compliance with the EU Service Directive. From a political economy perspective in these cases liberalization of market access restrictions should be prioritized.

2.3 Services trade policy and governance in EU Member states

The EU does not (yet) have a common external services trade and investment policy. Nor do the EU member states have the same quality of economic governance or service-sector specific regulatory regimes. Table 2.1 reports values for an indicator of applied discriminatory barriers to FDI in services – what is called mode 3 services trade barriers in WTO speak – for four producer services sectors and 24 member states in 2010.[5] This is a good proxy for countries' services trade restrictiveness as FDI is the most important mode through which foreign providers can contest markets and supply services (Francois and Hoekman, 2010). The data reveal substantial heterogeneity across EU members and sectors. FDI restrictions for financial services appear to be minimal everywhere in the EU, whereas barriers in transport, telecommunications and business services are relatively significant for several member states. FDI restrictions in the transport sector tend to be the highest for many countries. Figures 2.1-2.3 report data on four horizontal or cross-cutting dimensions of economic governance as well as for 3 sector-specific ones across EU member states and time.

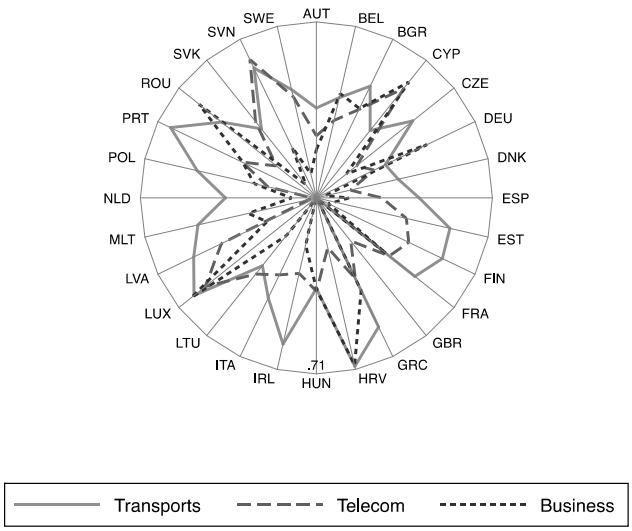
[5] The measures and the data sources introduced in this Section are discussed in more detail in Section 3.

Figure 2.1. Governance: horizontal dimensions across EU Member States



Note: 1 = highest barriers/minimum quality. Data refer to the quality of governance in 2013.
Source: OECD Product Market Regulation, Economy Wide Database.

Figure 2.2. Governance: sector-specific dimensions across EU Member States



Note: 1 = highest barriers/minimum quality. Data refer to the quality of governance in 2013.
Source: OECD Product Market Regulation, ETCR and Professional Services Database.

Table 2.1. Applied discriminatory barriers to services trade (Mode 3 GATS)

Country	Transport	Telecom	Finance	Business
AUT	0.182	0	0.002	0.322
BEL	0.114	0.023	0.024	0.248
CZE	0.075	0	0.010	0
DEU	0.200	0.013	0.005	0
DNK	0.083	0	0.002	0.363
ESP	0.075	0.112	0.002	0.113
EST	0.150	0	0.002	0
FIN	0.092	0.009	0.011	0.046
FRA	0.150	0.024	0.054	0.003
GBR	0.114	0.135	0.024	0.023
GRC	0.150	0.056	0.020	0.056
HUN	0.167	0	0.005	0
IRL	0.125	0	0.009	0
ITA	0.200	0.182	0.018	0
LTU	0.280	0.005	0.006	0.005
LUX	0.075	0	0.002	0
LVA	0.084	0.009	0.011	0.009
NLD	0.083	0	0.002	0
POL	0.092	0.187	0.003	0
PRT	0.083	0	0.017	0
ROU	0.167	0	0.002	0
SVK	0.075	0	0.002	0
SVN	0.150	0	0.002	0
SWE	0.292	0.200	0.002	0.051
AUT	0.182	0	0.002	0.322
BEL	0.114	0.023	0.024	0.248

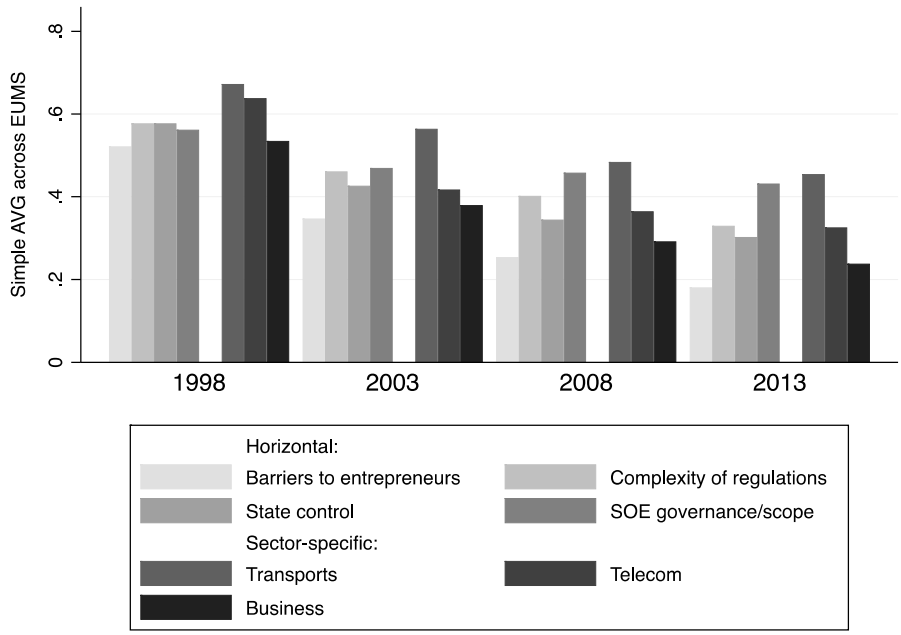
Note: 1 = maximum restrictions; 0 = no restrictions. Data refer to the applied policy stance in 2010. Source: OECD FDI Regulatory Restrictiveness Database.

The horizontal indicators reported are from the OECD Product Market Regulation (PMR) database and span barriers to entrepreneurship, the extent of state control of the economy, a composite measure of the complexity of regulatory regimes, and the governance of state-owned enterprises. These PMR indicators suggest substantial heterogeneity in these governance-related variables in the EU (Figure 2.1) and a positive trend toward better quality economic governance over time, especially for barriers to entrepreneurship (Figure 2.3). Similar conclusions can be drawn from the data on sector-specific dimensions of governance (Figures 2.2 and 2.3). The indicators used here are again sourced from the PMR database of the OECD and refer to sectoral governance in transport, telecommunication and finance.

More detailed measures of policy can be constructed for EU member states based on the degree of compliance with EU Directives which contain requirements pertaining to the governance of services sectors. A key instrument is the Services Directive which was adopted in 2006, with transposition to have been completed by 2009. This directive covers services sectors accounting for some 45 percent of EU GDP. It imposes disciplines on the use of prior authorizations for provision of services,

licensing for retail stores, specific authorizations for the sale of certain products at retail level and economic needs tests for retail outlets (Art. 9). It requires the removal of explicitly discriminatory policies such as nationality tests, requirements that a provider establish or join a professional body if this has already been done in an EU member state, that the firm's headquarters be located in the country, conditioning operations on economic needs tests, requiring financial guarantees or insurance from a host country provider, and involvement of (domestic) competitors in the process of granting authorization to operate (Art. 14). It also imposes disciplines on non-discriminatory regulatory requirements that may impede market access– e.g., limits on the number of establishments that are permitted or requirements that a firm employ a minimum number of employees (Art. 16).

Figure 2.3. Governance: horizontal and sector-specific dimensions over time



Note: 1 = highest barriers/minimum quality. Data refer to the quality of governance in 2013.
Source: OECD Product Market Regulation, Economy Wide Database

Art. 15 SD imposes disciplines on countries maintaining potentially competition-restricting regulatory measures justified on public interest grounds. Such measures– e.g., quantitative or territorial limitations, restrictions on the legal form of an entity, requirements concerning equity holdings, or price controls – must be transparent. To help assure this, governments are required to establish Points of Single Contact – "one-stop shops" where firms can obtain all necessary information on requirements that need to be satisfied to provide services in a country. Art. 15 also imposes specific substantive disciplines. Measures may not directly or indirectly discriminate according to nationality and/or, in the case of companies, on the basis of the location of the registered office; they must be justified by an overriding reason relating to the public interest (a necessity test) and not go beyond what is necessary to attain that public interest objective (a proportionality test). An important dimension of implementation of Art. 15 is a mutual evaluation process. Member states are tasked with assessing for themselves whether their regulatory requirements satisfy the substantive criteria of Art. 15 (necessity, proportionality) and must share their reasoning with other member states.

Table 2.2 reports data for 2014 on EU Member State compliance with the 2006 Services Directive in six selected sectors: accounting, architecture, engineering, legal services, tax advisers and hotels. Looking at the hotels sector, the data show almost complete compliance (full transposition) across all member states. This contrasts with the situation for legal services, a key component of the producer

services sector and an important input into manufacturing production. The data suggest that many countries are not fully complying with the requirements of the Services Directive across relevant producer services, including also professional services such as architecture and engineering services.

Table 2.2. EU Services Directive transposition in selected sectors

Country	Accountants	Architects	Engineers	Legal services	Tax advisers	Hotels
AUT	0.848	0.764	0.839	0.689	0.709	0.914
BEL	0.689	0.689	0.839	0.614	0.614	0.914
BGR	0.953	0.624	0.624	0.612	0.953	0.938
CYP	0.877	0.829	0.877	0.631	0.938	0.938
CZE	0.974	0.629	0.854	0.734	0.854	0.914
DEU	0.629	0.539	0.674	0.569	0.459	0.974
DNK	0.813	0.974	0.974	0.710	0.974	0.974
ESP	0.882	0.882	0.882	0.836	0.974	0.974
EST	0.916	0.974	0.974	0.733	0.974	0.974
FIN	0.859	0.974	0.974	0.882	0.974	0.974
FRA	0.779	0.733	0.974	0.733	0.779	0.974
GBR	0.914	0.854	0.974	0.794	0.974	0.974
GRC	0.914	0.914	0.914	0.695	0.914	0.918
HRV	0	0	0	0	0	0
HUN	0.854	0.854	0.854	0.569	0.794	0.914
IRL	0.974	0.914	0.974	0.674	0.974	0.974
ITA	0.751	0.751	0.751	0.654	0.751	0.974
LTU	1	0.906	0.906	0.741	0.953	1
LUX	0.848	0.709	0.848	0.629	0.779	0.914
LVA	1	0.906	0.906	0.906	0.953	1
MLT	0.846	0.692	0.692	0.692	1	0.938
NLD	0.839	0.914	0.914	0.839	0.914	0.914
POL	0.974	0.882	0.882	0.790	0.779	0.914
PRT	0.733	0.882	0.882	0.629	0.974	0.914
ROU	0.714	0.657	0.886	0.657	0.714	1
SVK	0.854	0.779	0.854	0.854	0.794	0.974
SVN	0.928	0.871	0.928	0.710	0.928	0.974
SWE	0.623	0.918	0.918	0.695	0.918	0.914

Note: Simple average of implementation of the Services Directive across requirements. 1 = complete implementation; 0 = no implementation. Data capture extent of implementation in 2014. Source: European Commission.

3. Empirical Specification and Data

The object of the empirical analysis that follows is to assess the role of different dimensions of governance institutions in shaping the downstream effects of trade policies targeting producer services. The results will inform the above discussion of the mechanics governing the relationship (complementarity versus substitutability) between trade openness and governance institutions in the context of producer services markets. We follow Beverelli et al. (2017) and use a measure of labour productivity varying at the country i and manufacturing sector j level (y_{ij}) as dependent variable. To

capture the impact of services trade restrictiveness on downstream sectors we define a composite (services) trade restrictiveness index defined as:

$$CRI_{ij} = \sum_{s} RI_{is} \times w_{isj}$$

where RI_{is} is a restrictiveness index for imports (foreign sales) of service s in country i, and w_{isj} is a measure of how much downstream sector j in country i uses service s as an intermediate input to produce its output.[6] The main focus of the analysis will be on the interaction between CRI_{ij} and detailed measures of country-level governance institutions capturing the specific dimension of governance d ($GI_{d;i}$), as follows:

$$y_{ijt} = \beta CRI_{ij(t-1)} + \mu\left(CRI_{ij(t-1)} \times GI_{d;i(t-1)}\right) + \gamma x_{ij(t-1)} + \delta_{it} + \delta_{jt} + \varepsilon_{ijt} \qquad (1)$$

where $x_{ij(t-1)}$ is the capital-labor ratio, a relevant determinant of productivity that is potentially correlated with $CRI_{ij(t-1)}$; δ_{it} and δ_{jt} are country-time and sector-time fixed effects, respectively; and ε_{ijt} is the error term.

The estimated marginal effects of CRI on y are given by:

$$\widehat{\frac{\partial y}{\partial CRI}} = \hat{\beta} + \hat{\mu} \times GI_{d;i}$$

and depend on country-level institutions captured by the variable $GI_{d;i}$. The sign of $\hat{\mu}$ will identify the nature of the moderating role of institutions (complement or substitute) in influencing the downstream productivity effects of producer services trade policy. For each dimension d, the respective version of equation (1) is estimated.

In a baseline model without the interaction term $CRI_{ij} \times GI_{d;i}$, the marginal effect of CRI on labour productivity is given by the estimated coefficient, $\hat{\beta}$. Based on the empirical evidence in the literature discussed above we expect $\hat{\beta}$ to be negative and statistically significant. Reducing restrictions to trade in producer services (i.e., a decrease in the value of RI, reflected in a proportional decrease in CRI) is expected to increase the labor productivity of downstream manufacturing sectors. A positive sign for the point estimate $\hat{\mu}$ in the interaction model (1) would then suggest that a lower value of the moderating governance variable GI_d is associated with a larger positive impact of reducing services trade restrictions on downstream manufacturing.

We assess the moderating role of seven horizontal dimensions of governance and three sector specific ones using OECD data (see below). Horizontal dimensions consist of two aggregate composite categories, barriers to entrepreneurs ($GI_{\text{bars to entrp}}$) and state control ($GI_{\text{state ctrl}}$), and five sub-categories. Three of these are elements of the composite measure of barriers to entrepreneurship – (i) administrative burdens ($GI_{\text{admin burdens}}$); (ii) complexity of regulations ($GI_{\text{complexity of reg}}$); and (iii) regulatory protection of incumbent operators ($GI_{\text{protec of incumb}}$). The other two sub-categories are

[6] The construction of such composite policy indicator is standard in the related literature assessing the economic effects of sector-specific (trade) policy for the performance of downstream activities/firms using the output of the sector target by the policy as intermediate input in their production process (see among others Amiti and Konings, 2007 and Beverelli et al., 2017).

elements of the composite indicator of state control: (iv) a measure of the extent of government intervention in business ($GI_{\text{gvt in business}}$); and (v) the relative importance of state owned enterprises ($GI_{\text{public ownership}}$). The three sector-specific regulatory governance measures pertain to transport ($GI_{\text{transport}}$), post and telecommunications (GI_{telecom}), and business services (GI_{business}). $GI_{\text{transport}}$ is the simple average of five indicators: scope of public ownership in air transports, scope of public ownership in rail transport, price regulation in road transport, market structure in the rail transport sector, and vertical integration in rail transport. GI_{telecom} is the simple average of four indicators: scope of public ownership in the postal sector, market structure of the postal sector, scope of public ownership in the telecommunications, and market structure of the telecommunication sector. GI_{business} is the simple average of four conduct regulation indicators for accountants, architects, engineers and legal service providers.

All of these variables range between 0 and 1. The lower the value, the higher the quality of the associated governance institutions in a pro-competitive sense. Therefore, a positive sign for $\hat{\mu}$ is suggestive of a complementarity role of domestic governance with respect to market access liberalization: reducing barriers to services trade has a stronger positive effect on downstream manufacturing sectors given higher quality of domestic economic governance. In contrast, a negative sign for the estimate of $\hat{\mu}$ suggests a substitutability role of domestic governance with respect to market access liberalization: when domestic governance is weak, opening markets for producer services to international trade and investment has a strong positive effect on the productivity of downstream manufacturing sectors.

To assess the moderating function of governance dimensions that reflect the role of EU institutions we define the following three variables. A dummy SD_{it} taking value 1 if the Services Directive is in force in country i at time t; two continuous variables – $SDR_{\text{all};it}$ and $SDR_{\text{business};it}$ – that measure the level of compliance of country i at time t with the Services Directive Requirements. The first of these variables includes all service sectors covered by the SD and on which we have data (this includes business services and several non-producer services such as hotels, restaurants, travel agencies). The second variable includes only business services. Both variables range between 0 to 1 with 0 (1) representing minimum (maximum) compliance. We then re-estimate equation (1), replacing $GI_{d;i}$ with each of these three proxies of EU related governance institutions. The interpretation of the estimated sign for the coefficient μ is consistent with the definition of each EU-related governance variable. In general, a value of 1 for these moderators means that the associated dimension of governance is active/present, mainly in the form of applicability of/compliance with the requirements of the Services Directive. Therefore, a negative sign for the point estimate $\hat{\mu}$ reflects a relationship between market access liberalization and EU-based domestic governance such that the positive downstream effects of the former are amplified where EU institutions are more deeply embedded in domestic governance through applicability of/compliance with the Services Directive.

Endogeneity resulting from observable and/or unobservable heterogeneity is not a major concern for the chosen specification. Country-time and sector-time fixed effects control for any country- or sector-specific time contingent shock that has the property of affecting both labour productivity and the regressors of interest. Endogeneity of input-output weights is addressed in a standard way as discussed below.

Data on labour productivity are sourced from the STAN Database managed by the OECD. Concretely, we measure labour productivity as the natural logarithm of the ratio between value added and total employed persons. Capital and labour measures used to construct the capital-labour ratio come from the same database. Services trade policy is measured with the OECD FDI Regulatory Restrictiveness Index. This is available for multiple years, in contrast to the recent World Bank and OECD services trade restrictiveness indicators. Given the findings of empirical work in this area that FDI policies (affecting mode 3) are what matters (Francois and Hoekman, 2010; Beverelli et al., 2017), the focus on mode 3 (FDI) policies is not a major limitation. Horizontal governance variables

come from the OECD Product Market Regulation – Economy Wide Database. Indicators reported in the PMR database that entail discrimination against foreign providers such as trade and FDI related policies are not used as market access policy is captured by the FDI restrictiveness indicator. Similarly, measures that entail discriminatory barriers to entry are systematically excluded from the construction of the sector specific regulatory variables. Proxies for the input-output weights w_{isj} are given by the technical coefficients of IO matrices. To minimize the potential endogeneity of this component of the composite reform indicator we use US input-output (IO) coefficients for the mid-1990s and apply these across all countries in our estimation sample.[7] The IO data is drawn from the OECD STAN IO Database. The measures of transport- and telecommunication-specific governance are sourced from the OECD PMR – ETCR Database. The business-services specific governance variable is built from indicators in the OECD PMR Professional Services Database.

The proxy for compliance with the requirements in the Services Directive is constructed from the database presented in Monteagudo et al. (2012). That database contains information on compliance with the main requirements of the Services Directive for fifteen services sectors. For each country-sector pair, the database identifies a number of key policy areas embedded in 20 requirements across five key articles of the Services Directive.[8] The database permits the construction of an indicator of the distance between the policy regime prevailing in country c, sector s, at time t and the objective specified by the Services Directive embodied in requirement r. This measure of 'convergence', CL_{csrt}, takes four discrete values between 0 or 1, with 0 (1) indicating minimum (maximum) convergence with the Services Directive requirements. Intermediate values of 0.2 and 0.8 are defined to account for partial compliance with the requirements.[9] Starting from this convergence variable, SDR_{all} is computed as the simple average of CL_{csrt} across all requirements and sectors. Similarly, $SDR_{business}$ is given by the simple average of CL_{csrt} across all requirements for those business services for which data are reported (accounting, architectural, engineering, legal, and tax advisory services).

Some of the data series used in the analysis are not annual but span a selection of years. This is the case for the PMR Economy Wide Database, the FDI Regulatory Restrictiveness Database and the SD Database. In these cases we construct a panel by imputing the missing value at time t with the non-missing value at time $t-1$. Alternative imputation strategies as well as a conservative approach that uses only the reports data points do not substantially change the main results presented in the next section.[10]

Merging all variables together, we obtain an estimation sample consisting of 2840 observations which cover 12 EU countries (Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Italy, the Netherlands, Spain, Sweden and the UK) plus Norway; up to 18 manufacturing sectors defined according to the ISIC Rev 3 (2 digit) categories; and 21 years, from 1989 to 2009. Table I.1 in Annex I reports summary statistics for all the variables used in the empirical analysis.

4. Results

Estimation results are organized per type of domestic governance variable. Column (1) in Table 4.1 reports the benchmark estimates from a regression without the interaction term. The other columns present point estimates and standard errors for the coefficients in equation (1) when proxies of horizontal governance are interacted with the composite reform indicator.

---

7 For discussion and assessments of the appropriateness of using US weights as an indicator of the technological linkages between industries see Rajan and Zingales (1998) and Barone and Cingano (2011).

8 The relevant SD provisions are Articles 9, 14, 15, 16 and 25. Monteagudo et al. (2012) and Canton at al. (2014) provide economic impact assessments of liberalization of services covered by the SD.

9 See Monteagudo et al. (2012) for a detailed description of the database.

10 Results of these robustness tests are available upon request.

The estimated coefficient for CRI in column (1) is negative and statistically significant. This replicates the finding in the literature of a positive downstream effect of removing market access barriers for services. The point estimate of -0.815 implies that a one standard deviation decrease in the composite reform indicator (-0.048) increases downstream labor productivity on average by 3.9%.[11] Turning to the interaction models in columns (2)-(8), a number of findings emerge. First, when the marginal effect of CRI is allowed to change linearly with the quality of regulatory/governance institutions, the relationship varies across the horizontal governance proxies. This illustrates the salience of 'unpacking' regulatory regimes in assessments of the moderating role of governance quality: this heterogeneity is lost when macro measures of institutions are used. Second, the negative and statistically significant coefficients of the interaction term in columns (2) and (4) suggest that greater market access for services inputs can act as a substitute for reducing regulatory barriers to entrepreneurship. It also suggests that of the elements that make up this composite indicator, the complexity of regulatory regimes is particularly important (column 4). This is consistent with the hypothesis advanced above that foreign providers, once granted better market access, can offer better quality, variety and/or prices than domestic providers by successfully overcoming prevailing barriers to entrepreneurship. These results are plotted in Annex I Figures I.1 and I.2, which show that the estimated marginal effect of CRI decreases with GI and is always negative and statistically different from 0 (meaning a positive downstream effect of reducing trade restrictions) when barriers to entrepreneurship are high (the quality of governance captured by this variable is low).

Third, the alternative measure of horizontal economic governance – captured by the scope of SOEs in the economy – tends to operate as a necessary condition for a positive downstream effect of services trade liberalization. This is suggested by the positive and statistically significant estimated coefficient of the interaction term in columns (6) and (8). The corresponding estimated marginal effects of CRI are reported in Annex I Figures I.3 and I.4. The effect is increasing in the moderator. Moreover, it is negative and statistically significant (meaning a positive downstream effect of reducing trade restrictions) when the barriers implied by state control or by the scope of prevailing SOEs are low enough (i.e., the quality of governance in this dimensions is high). This finding is consistent with the discussion in section 2.2 and indicates that bad governance in terms of public ownership affects market conditions in a way that cannot be overcome by foreign services providers. Better market access in producer services is ineffective in increasing downstream productivity when the barriers implied by the scope and governance of SOEs are too high.

[11] More detailed quantifications of the downstream effects of trade policy changes is beyond the scope of this paper. Our empirical methodology implies that quantification of the effects of changes in the policy variables alone can only be conducted at the manufacturing sector level. We adopt the simpler approach of looking at the effects of changes in the composite policy indicator (de facto treating it as a policy variable in itself) given our focus on analyzing the potentially heterogeneous role of different dimensions of regulatory governance in moderating the downstream effects of services trade policy as opposed to quantification of the magnitude of these effects. Analogous quantification approaches are used in the literature looking at the impact of import tariff reforms for downstream firms or industries—see for instance Amiti and Konings (2009).

Table 4.1. The moderating role of governance institutions: horizontal dimensions

Dep var: log of labour productivity	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
CRI	-0.815***	1.079	-0.552	-0.264	-0.458	-2.504***	-0.413	-4.954***
	(0.271)	(1.037)	(0.747)	(0.382)	(0.703)	(0.748)	(0.602)	(0.773)
$CRI \times GI_{\text{bars to entrp}}$		-4.846**						
		(2.349)						
$CRI \times GI_{\text{admin burdens}}$			-0.441					
			(1.126)					
$CRI \times GI_{\text{complexity of reg}}$				-1.895**				
				(0.919)				
$CRI \times GI_{\text{protec of incumb}}$					-0.784			
					(1.275)			
$CRI \times GI_{\text{state control}}$						3.288**		
						(1.271)		
$CRI \times GI_{\text{gvt in business}}$							-1.099	
							(1.302)	
$CRI \times GI_{\text{public ownership}}$								7.251***
								(1.230)
$\log K/L$	0.137***	0.135***	0.137***	0.137***	0.136***	0.136***	0.136***	0.131***
	(0.028)	(0.028)	(0.028)	(0.028)	(0.028)	(0.028)	(0.029)	(0.028)
Observations	2840	2840	2840	2840	2840	2840	2840	2840
Adj. R-squared	0.782	0.782	0.782	0.782	0.782	0.782	0.782	0.784

Note: All specifications include country-time and sector-time fixed effects. Robust standard errors clustered at the country-time level are reported between brackets. Statistical significance: * p<0.1; ** p<0.05; *** p<0.01.

Table 4.2 reports results for the interaction model when the regulatory variable is sector-specific, for three sectors: transport, telecommunications and business services. As with the horizontal economic governance measures, the moderating role of sector-specific regulatory differs across sectors, suggesting it is important to differentiate between sectoral regulatory regimes. High quality regulation of transport and telecommunications appears to be a necessary condition for positive downstream effects of services trade reforms. This is shown by the positive and statistically significant coefficients of the interaction term in columns (2) and (3) (for the graphical counterpart, see the corresponding plots of the marginal effect of CRI in Annex I, Figures I.5 and I.6). The opposite relationship (substitutability) holds for business services. These results are consistent with reasoning in section 2.2 that the quality of conduct regulation in sectors that rely heavily on access to network infrastructure

(especially the case for telecommunication services) may be condition the ability of foreign services providers to operate efficiently and therefore improve the quality, variety or prices of services available on the market. Absent effective pro-competitive sectoral regulation downstream productivity benefits of market access reforms do not materialize. Conversely, low quality sectoral regulation of business services appears to inhibit foreign services providers less. The negative coefficient estimate for business services in column 4 of Table 4.2 suggests a substitution relationship: market access reforms have the potential to trigger positive downstream effects in countries where the business sector is badly regulated.

Table 4.2. The moderating role of governance institutions: sector-specific dimensions

Dep var: log of labour productivity	**(1)**	**(2)**	**(3)**	**(4)**
CRI	-0.815***	-2.313***	-2.960***	0.242
	(0.271)	(0.782)	(0.864)	(0.630)
$CRI \times GI_{\text{transport}}$		2.161**		
		(1.002)		
$CRI \times GI_{\text{telecom}}$			3.332***	
			(1.089)	
$CRI \times GI_{\text{business}}$				-1.584**
				(0.770)
$\log K/L$	0.137***	0.137***	0.136***	0.134***
	(0.028)	(0.028)	(0.028)	(0.029)
Observations	2840	2840	2840	2840
Adj. R-squared	0.782	0.782	0.783	0.782

Note: All specifications include country-time and sector-time fixed effects. Robust standard errors clustered at the country-time level are reported between brackets. Statistical significance: * p<0.1; ** p<0.05; *** p<0.01.

Table 4.3 presents the results of the interaction model using the proxies for EU-related governance institutions and restricting the same to EU countries. The narrowly defined measures of economic governance such as the Services Directive dummy and the country-specific compliance measures do not seem to have any effect on downstream sectors. This may reflect the focus of the Services Directive, which spans a wide range of services, many of which enter into final demand as opposed to being inputs into production (e.g., hotels, restaurants, tourist agencies). However, the same finding holds if the focus is limited to compliance for business services only. Of course this does not mean that the SD has not had effects. Monteagudo et al. (2012) for example find that the SD and compliance with its requirements has a sizable direct positive effect on the productivity of the targeted services sectors.

Table 4.3. The moderating role of governance institutions: the EU dimension

Dep var: log of labour productivity	(1)	(2)	(3)	(4)
CRI	-0.815***	-0.884***	-0.878***	-0.900***
	(0.271)	(0.267)	(0.268)	(0.273)
$CRI \times SD$		0.376		
		(0.693)		
$CRI \times SDT_{\text{all}}$			0.422	
			(0.840)	
$CRI \times SDT_{\text{business}}$				0.680
				(1.026)
$\log K/L$	0.137***	0.137***	0.137***	0.137***
	(0.028)	(0.028)	(0.028)	(0.028)
Observations	2840	2840	2840	2840
Adj. R-squared	0.782	0.782	0.782	0.782

Note: All specifications include country-time and sector-time fixed effects. Robust standard errors clustered at the country-time level are reported between brackets. Statistical significance: * p<0.1; ** p<0.05; *** p<0.01.

The results of this analysis suggest that countries that underperform in terms of domestic economic governance variables that are likely to have a complementary relationship with services market access liberalization should prioritize reforms to improve governance performance. Areas of regulation/governance where this may be the case include public ownership and conduct regulation in transport and telecommunication sectors. However, in cases where market access can substitute for regulatory improvement the policy implication of our analysis is that there is less need to be concerned with sequencing or coordination between services trade liberalization and pursuit of regulatory reform and improving economic governance. The empirical findings above suggest that substitutability may be prevalent for instances where countries perform poorly with respect to barriers to entrepreneurship and conduct regulation in business services.

5. Conclusion

Services comprise a substantial share of all inputs used by firms. The cost, quality and variety of services available to firms is one determinant of their competitiveness. Sector-specific restrictive trade policies will impact on the degree of competition on services markets, and thus markups and sectoral efficiency. They will also impact on the availability and quality of services. Recent compilations of prevailing policies across countries by the OECD and the World Bank have shown that barriers to trade in services are often significant, translating into estimates of ad valorem tariff equivalents that are substantially higher than trade barriers for goods (Jafari and Tarr, 2017). These considerations suggest governments should pursue unilateral services trade liberalization. This may confront political economy difficulties, however, as a result of the rents created by trade-restrictive policies. Trade agreements offer a potential instrument to address constraints that impede welfare-enhancing domestic policy reforms. The underlying dynamics are well-understood – a trade agreement can incentivize

groups that will benefit from better access to partner markets to counteract the domestic political pressure of firms and sectors that stand to lose rents from market opening measures.

In practice most trade agreements have done relatively little to liberalize trade in services, especially agreements including developing nations. In the EU context, certain services sectors – such as medical services, educational services, or audio-visual services – are often deemed too 'sensitive' to table in a trade negotiation. Thus, potential welfare gains from greater competition are not realized. Part of the explanation for the limited outcomes on services are differences in regulation, an understandable unwillingness to accept the regulatory standards and norms prevailing in partner countries and, more generally, the challenges associated with regulatory cooperation. In principle, countries can (and do) simply insist on applying national regulatory measures to both domestic and foreign firms. While such a national treatment approach implies country-specific fixed costs for foreign firms, if they are productive enough to be able to offer better/cheaper services once they have complied with regulatory requirements, they will benefit from liberalization of market access barriers—as will domestic consumers. In such cases liberalization can act as a partial substitute for domestic regulatory reforms, and standard trade negotiation dynamics can 'work' in delivering gains from market opening.

The empirical results in this paper illustrate that this dynamic does not hold across the board. In some instances liberalization will not deliver significant gains unless regulatory reforms are implemented. More importantly, the analysis points to a need for greater attention to be given to economic governance and regulatory quality when pursuing services market access liberalization and in the design of deep trade agreements that include services. We go beyond recent research showing that weak governance may substantially reduce the magnitude of the potential benefits of services trade policy reforms by 'unpacking' different dimensions of regulation and economic governance. Despite the deep integration of EU member state markets, there are substantial differences across countries when it comes to services trade policies towards the rest of the world as well as salient domestic regulatory regimes, both of a horizontal nature (affecting the economy as a whole) and services-sector specific. The finding that in some circumstances services trade policy reforms can substitute for action to improve domestic regulatory governance, whereas in others it cannot, suggests that more attention be given to the relationship between regulatory institutions and services trade reforms when designing deep integration agreements.

The fact that our empirical findings apply to members of the EU – an economic union – demonstrates that the pursuit of the textbook 'linear' model " in which regional integration proceeds from free trade agreements to a customs union, a common market and economic union is not sufficient to ensure that the potential benefits of market integration will be realized. This is of course not a new insight, but it supports the view that regulatory policies and economic governance variables be considered in the design of deeper integration initiatives, whether these take the form of free trade agreements that include services and investment or involve common external policies and the creation of an economic union. Our results also have implications for model-based assessments and associated public communication by the authorities regarding the outcome and (prospective) economic effects of a trade negotiation. Insofar as such assessments do not consider the moderating effect of prevailing regulatory regimes they may result in overestimation of net aggregate benefits and misleading assessments of their distribution within, and in the case of the EU, across countries.

Regulatory cooperation or the inclusion of commitments to adopt internationally agreed and accepted good regulatory practices may offer one mechanism through trade agreements can become more relevant from the perspective of improving domestic regulatory institutions (Basedow and Kauffman, 2016). Some steps in this direction have been taken in a number of recent trade negotiations, but to date the major thrust of EU agreements has been on provisions to support human rights, labor standards and protection of the environment in partner countries. A greater focus on the interaction between regulatory regimes/economic governance and services trade policy in the design

of deep trade agreements could increase the likelihood and magnitude of net welfare gains form liberalizing trade and investment in services.

References

Acemoglu, Daron, Simon Johnson, and James Robinson. 2001. "The Colonial Origins of Comparative Development: An Empirical Investigation." *American Economic Review* 91 (5): 1369–1401.

Ahsan, Reshad. 2013. "Input Tariffs, Speed of Contract Enforcement, and the Productivity of Firms in India." *Journal of International Economics* 90 (1): 181–192.

Amiti, Mary, and Jozef Konings. 2007. "Trade Liberalization, Intermediate Inputs, and Productivity: Evidence from Indonesia." *American Economic Review* 97 (5): 1611–38.

Anderson, James and Douglas Marcouiller. 2002. "Insecurity and the Pattern of Trade: An Empirical Investigation." *Review of Economics and Statistics* 84 (2): 342–52.

Arnold, Jens, Beata Javorcik, and Aaditya Mattoo. 2011. "Does Services Liberalization Benefit Manufacturing Firms? Evidence from the Czech Republic." *Journal of International Economics* 85 (1): 136–46.

Arnold, Jens, Beata Javorcik, Molly Lipscomb and Aaditya Mattoo. 2016. "Services Reform and Manufacturing Performance. Evidence from India." *Economic Journal* 126 (590): 1-39.

Baldwin, Richard. 2016. *The Great Convergence: Information Technology and the New Globalization.* Harvard University Press.

Barone, Guglielmo, and Federico Cingano. 2011. "Service Regulation and Growth: Evidence from OECD Countries." *Economic Journal* 121 (555): 931–57.

Bartels, Lorand. 2012. "Human rights and sustainable development obligations in EU free trade agreements". *Faculty of Law Research Paper No. 24/ 2012*. University of Cambridge.

Basedow, Robert and Celine Kauffmann, 2016. "International Trade and Good Regulatory Practices: Assessing the Trade Impacts of Regulation," *OECD Regulatory Policy Working Papers no. 3*, OECD Publishing Paris.

Beverelli, Cosimo, Matteo Fiorini, and Bernard Hoekman. 2017. "Services Trade Policy and Manufacturing Productivity: The Role of Institutions." *Journal of International Economics* 104: 166–82.

Bourlès, Renaud, Gilbert Cette, Jimmy Lopez, Jacques Mairesse, and Giuseppe Nicoletti. 2013. "Do Product Market Regulations in Upstream Sectors Curb Productivity Growth? Panel Data Evidence for OECD Countries." *Review of Economics and Statistics* 95 (5): 1750–68.

Busse, Matthias and Carsten Hefeker, 2007, "Political risk, institutions and foreign direct investment," *European Journal of Political Economy*, 23(2): 397-415.

Canton, E., D. Ciriaci and I. Solera, 2014, "The Economic Impact of Professional Services Liberalization," *European Economy*, Economic Papers 533

Copeland, Brian and Aaditya Mattoo, 2008, "The Basic Economics of Services Trade," in A. Mattoo, R.M. Stern and G. Zanini (eds.), *A Handbook of International Trade in Services.* Oxford: Oxford University Press.

De Bièvre, Dirk and Arlo Poletti, 2017, "Why the Transatlantic Trade and Investment Partnership is not (so) new, and why it is also not (so) bad," *Journal of European Public Policy*, 24(10): 1506-21.

De Loecker, Jan, Pinelopi Goldberg, Amit Khandelwal, and Nina Pavcnik. 2016. "Prices, Markups, and Trade Reform." *Econometrica* 84 (2): 445–510.

Donno, Daniela and Michael Neureiter, 2017, "Can human rights conditionality reduce repression? Examining the European Union's economic agreements," *The Review of International Organizations* (June). At: https://link.springer.com/article/10.1007/s11558-017-9283-2.

Dort, Thibaut, Pierre-Guillaume Méon, and Khalid Sekkat, 2014, "Does Investment Spur Growth Everywhere? Not Where Institutions Are Weak," *Kyklos* 67 (4): 482–505.

Dreher, Axel and Martin Gassebner, 2013. "Greasing the wheels? The impact of regulations and corruption on firm entry," *Public Choice*, 155(3): 413-32.

Dür, Andreas, Leonardo Baccini and Manfred Elsig 2014. "The Design of International Trade Agreements: Introducing a New Database," *The Review of International Organizations*. 9(3): 353-75.

Eckhardt, Jappe and Arlo Poletti, 2016, "The politics of global value chains: import-dependent firms and EU–Asia trade agreements," *Journal of European Public Policy* 23(10): 1543-62.

Fiorini, Matteo and Bernard Hoekman, 2017, "Economic Governance, Regulation and Services Trade Liberalization," EUI Working Paper RSCAS 2017/27.

Francois, Joseph. 1990. "Producer Services, Scale, and the Division of Labor." *Oxford Economic Papers* 42 (4): 715–29.

Francois, Joseph, and Bernard Hoekman. 2010. "Services Trade and Policy." *Journal of Economic Literature* 48 (3): 642–92.

Freund, Caroline, and Bineswaree Bolaky. 2008. "Trade, Regulations, and Income." *Journal of Development Economics* 87 (2): 309–21.

Goldberg, Pinelopi, Amit Kumar Khandelwal, Nina Pavcnik, and Petia Topalova. 2010. "Imported Intermediate Inputs and Domestic Product Growth: Evidence from India." *Quarterly Journal of Economics* 125 (4): 1727–67.

Hoekman, Bernard and Aaditya Mattoo, 2013, "Liberalizing Trade in Services: Lessons from Regional and WTO Negotiations," *International Negotiation*, 18(1): 131-51.

Hoekman, Bernard and Charles Sabel, 2017, "Trade Agreements, Regulatory Sovereignty and Democratic Legitimacy," EUI RSCAS Working Paper 2017/36.

Hoekman, Bernard and Ben Shepherd. 2017. "Services Productivity, Trade Policy, and Manufacturing Exports." *The World Economy* 40 (3): 499–516.

Jafari, Yaghoob and David Tarr, 2017, "Estimates of Ad Valorem Equivalents of Barriers against Foreign Suppliers of Services in Eleven Services Sectors and 103 Countries," *The World Economy*, 40(3): 544-73.

Lavenex, Sandra. 2014. "The power of functionalist extension: How EU rules travel", *Journal of European Public Policy* 21(6): 885– 903.

Lechner, Lisa. 2016. "The domestic battle over the design of non-trade issues in preferential trade agreements". *Review of International Political Economy*, 23(5): 840-71.

Lester, Simon and Inu Barbee. 2013. "The challenge of cooperation: Regulatory trade barriers in the Transatlantic Trade and Investment Partnership." *Journal of International Economic Law* 16(4): 847-67.

Mavroidis, Petros C. 2016. *The Regulation of International Trade*. Cambridge MA: MIT Press.

Miroudot, Sébastien, Rainer Lanz, and Alexandros Ragoussis. 2009. "Trade in Intermediate Goods and Services." 93. OECD Trade Policy Paper. OECD Publishing.

Monteagudo, Josefa, Aleksander Rutkowski, and Dimitri Lorenzani. 2012. "The Economic Impact of the Services Directive: A First Assessment Following Implementation," Economic Papers 456.

Nunn, Nathan, and Daniel Trefler. 2014. "Domestic Institutions as a Source of Comparative Advantage." In *Handbook of International Economics*, edited by Gita Gopinath, Kenneth Rogoff, and Elhanan Helpman, 263–315. Elsevier.

Postnikov, Evgeny and Ida Bastiaens, 2014. "Does dialogue work? The effectiveness of labor standards in EU preferential trade agreements". *Journal of European Public Policy*, 21(6), 923–940.

Ranjan, Priya, and Jae Young Lee. 2007. "Contract Enforcement and International Trade." *Economics & Politics* 19 (2): 191–218.

Rodriguez, Francisco, and Dani Rodrik. 2001. "Trade Policy and Economic Growth: A Skeptic's Guide to the Cross-National Evidence." In *NBER Macroeconomics Annual*, edited by Ben S. Bernanke and Kenneth Rogoff. Cambridge, MA: MIT Press.

Roy, Martin, 2016, "Charting the evolving landscape of services trade: Recent patterns of protection and liberalization," in M. Roy and P. Sauvé (eds.), *Research Handbook on Trade in Services*. Edward Elgar.

Spilker, Gabriele and Tobias Böhmelt, 2013, "The impact of preferential trade agreements on governmental repression revisited," *The Review of International Organizations* 8(3): 343-61.

Van den Putte, Lore and Jan Orbie, 2015, "EU Bilateral Trade Agreements and the Surprising Rise of Labour Provisions," *International Journal of Comparative Labour Law and Industrial Relations,* 31(3): 263-84.

Young, Alasdair. 2015. "Liberalizing trade, not exporting rules: the limits to regulatory coordination in the EU's 'new generation' trade agreements". *Journal of European Public Policy,* 22(9): 1253-75.

Young, Alasdair. 2016. "Not your parents' trade politics: the Transatlantic Trade and Investment Partnership negotiations," *Review of International Political Economy*, 23(3): 345-78.

ANNEX

Summary statistics

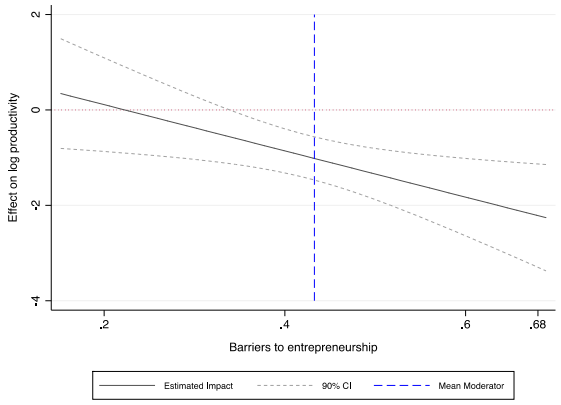
Annex Table I.1. Summary statistics

Variable name	Mean	Median	SD	Min	Max
Labour productivity	10.924	10.865	0.586	7.696	14.142
CRI	0.063	0.051	0.048	0.006	0.338
$GI_{\text{bars to entrp}}$	0.433	0.436	0.135	0.152	0.689
$GI_{\text{admin burdens}}$	0.448	0.415	0.185	0.138	0.827
$GI_{\text{complexity of reg}}$	0.515	0.541	0.184	0.137	0.857
$GI_{\text{protec of incumb}}$	0.383	0.374	0.164	0.064	0.718
$GI_{\text{state ctrl}}$	0.459	0.436	0.178	0	0.815
$GI_{\text{gvt in business}}$	0.34	0.3	0.209	0	0.915
$GI_{\text{public ownership}}$	0.515	0.533	0.177	0.096	0.873
$GI_{\text{transport}}$	0.562	0.6	0.202	0	0.972
GI_{telecom}	0.569	0.575	0.201	0.03	0.902
GI_{business}	0.428	0.305	0.311	0.005	1
SD	0.181	0	0.385	0	1
SDT_{all}	0.147	0	0.315	0	0.928
SDT_{business}	0.133	0	0.292	0	0.922
$\log K/L$	12.136	11.897	1.225	9.331	16.153

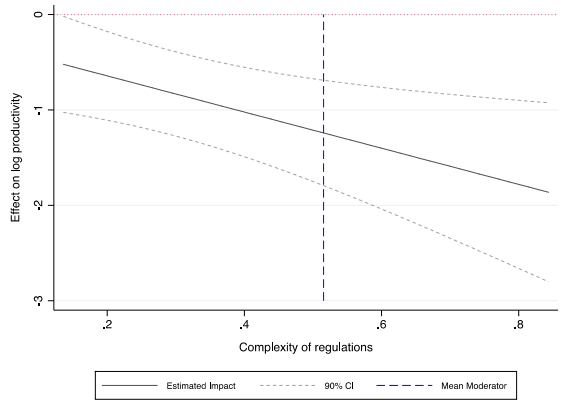
Note: Summary statistics are computed on the estimation sample of 2840 observations used in all regressions.

Estimated marginal effects of CRI in interaction models with horizontal economic governance variables

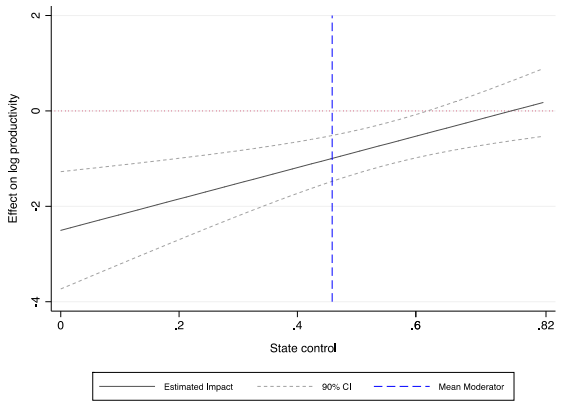
Annex Figure I.1. Marginal effects of CRI as function of $GI_{\text{bars to entrp}}$



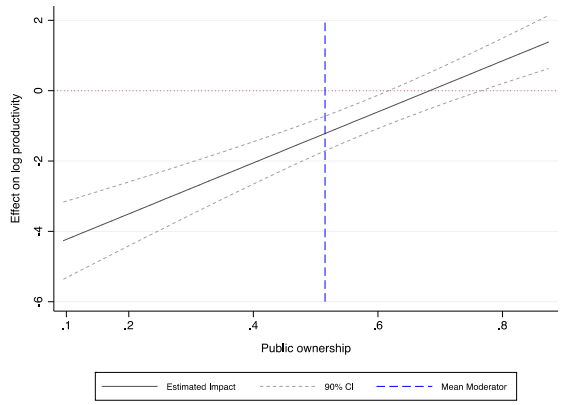
Annex Figure I.2. Marginal effects of CRI as function of $GI_{\text{complexity of reg}}$



Annex Figure I.3. Marginal effects of CRI as function of $GI_{\text{state control}}$



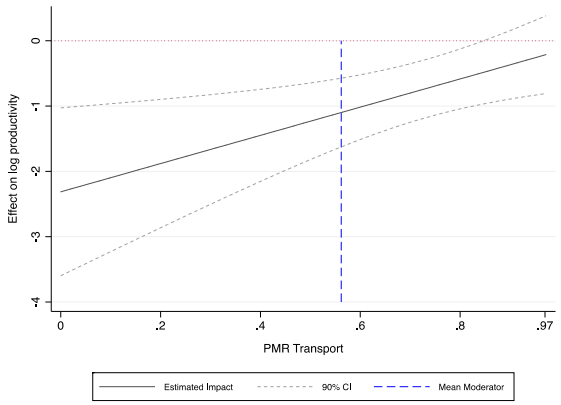
Annex Figure I.4. Marginal effects of CRI as function of $GI_{\text{public ownership}}$



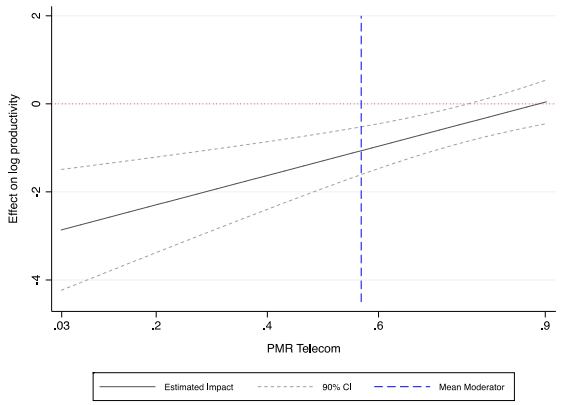
Note: Marginal effects are estimated based on the specifications reported in Table 4.1 for which the point estimate of the interaction term is statistically significant.

Estimated marginal effects of CRI in interaction models with sector-specific regulatory governance

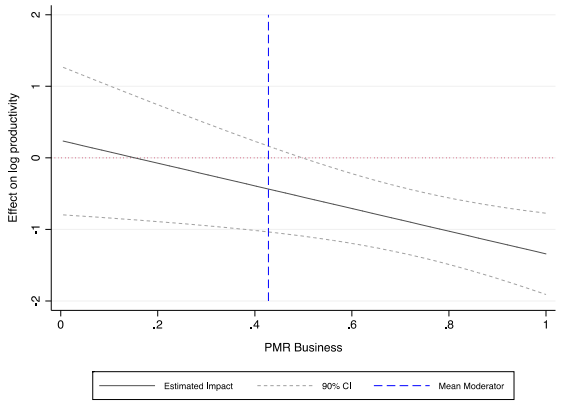
Annex Figure I.5. Marginal effects of CRI as function of $GI_{\text{transport}}$



Annex Figure I.6. Marginal effects of CRI as function of GI_{telecom}



Annex Figure I.7. Marginal effects of CRI as function of GI_{business}



Author contacts:

Matteo Fiorini and Bernard Hoekman

Robert Schuman Centre for Advanced Studies, European University Institute

Villa Schifanoia, Via Boccaccio 121

I-50133 Florence

Email: matteo.fiorini@eui.eu

Email: Bernard.Hoekman@eui.eu