The UK and Developing Countries

A deeper look at issues surrounding
Trade in Services and Free Trade Agreements

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Preface

As agreed in PO 40101498, this paper offers original research and surveys of critical evidence on five aspects of the UK's future trade relationship with developing countries: four refer to the negotiation and structure of possible Free Trade Agreements with developing countries and the last to the opportunities that the UK can offer to developing countries to export services. It is designed to support policy thinking but explicitly and consciously eschews policy comment itself.

The UK will need to design its post-Brexit trade regime for developing countries. While we presume that it will continue unilateral preferences – and indeed has already committed to maintain the Everything But Arms (EBA) component of the Generalised System of Preferences – the question arises of what should succeed the EU's Economic Partnership Agreements, in particular for the middle income and other low income members of the African, Caribbean and Pacific (ACP) States that do not qualify for EBA. In addition, although we do not pay it direct attention here, the UK will need to determine its policies with the countries of the European neighbourhood, Latin America and other developing countries, even including very large economic forces such as China and India.

We do not take up the policy question of whether to sign Free Trade Agreements with any or all of these countries directly, but rather analyse three specific issues that will be unavoidable if the decision is taken to do so. They naturally inform that decision – i.e. the desirability of signing FTAs with ACP states – but they do not seek to advise on the overall balance of advantages and disadvantages of pursuing such a policy.

The second strand of research concerns UK services import policy. It identifies the differences between UK and EU policies: services imports face somewhat different regimes in different member states of the EU – i.e. the Single Market is incomplete – and the mere documentation of these differences represents an important source of information. Following that we ask how opportunities to export services to the UK match with developing countries' production capacities and then whether there are obvious places in which extending trade would be mutually beneficial. Again, this is not viewed as making a policy recommendation but of providing information which can inform such a policy decision.

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Chapter 1: Introduction

1.1. This paper presents some of the evidence that will be useful in developing an institutional architecture to govern trade between the United Kingdom (UK) and developing countries. The starting point is the current relationship between the European Union (EU) and the developing world. Particular attention is paid to relationships with the African, Caribbean and Pacific (ACP) countries which are and will remain for some time the primary beneficiaries of the EU's existing development-facing trade and assistance programmes.

1.2. The paper is not comprehensive, and still less aims to design a complete system. Rather it discusses in some detail five key issues that will arise as the overall policy is constructed:

1.2.1 The history and existing institutional arrangements for governing trade between the EU and the ACP states. As noted above, this is the starting point in 2019, but the history is also important in highlighting challenges and pitfalls in designing and negotiating new arrangements.

1.2.2 Rules of Origin: a key part of any UK-developing country relationship (reciprocal or unilateral) will be preferences for developing country exports and these in turn inevitably involve rules of origin. The latter can be very influential of trade volumes and hence need to be designed with care.

1.2.3 Is trade diversion a potential problem? The EU currently seeks reciprocal preferences for its exports to ACP countries in its Economic Partnership Agreements (EPAs). The EU is generally these countries' dominant supplier of the goods it sells them and hence the effect of preferences for the EU might be argued to be moderately close to a unilateral liberalisation of ACP markets in these goods. The UK is only very rarely a dominant supplier and hence offering preferences to the UK in the absence of any for the EU has a potential to be trade diverting and thus to impose costs on the ACP countries.

1.2.4 Should we include government procurement chapters in any potential free trade agreement (FTA) with developing countries? We discuss the extent to which existing agreements on government procurement influence trade flows and infer from this priorities for any such components in future UK-ACP FTAs. With government procurement accounting for perhaps 10% of global GDP, and to date little progress in inducing reforms in developing countries, the stakes here are high.

1.2.5 Services trade: services account for approximately 50% of global GDP and are thus a key part of any trade regime. However, the sector is under-researched and the evidence base limited. We document UK policy stances on services imports (relative to the EU's) and consider developing countries' comparative advantages in services. These are steps towards evolving a policy on services imports and/or preferences for developing countries in future trade relations. Services have seen relatively little previous liberalisation, so that progress in this area could be particularly valuable.

1.3. Some chapters of the paper draw on a review and analysis of the extant literature by the authors drawing on their knowledge of, and expertise in, the areas covered. The time available for this study did not permit systematic surveys of the several massive literatures covering the areas of study, but rather an engagement with the highlights and principal contributions to knowledge as identified by the authors over many years of direct engagement with policy and academic writing in them. In all cases the authors have sought to ensure that they include a balanced account of the fields, and to that end supplemented their own knowledge of the fields with searches of the literature using tools like GoogleScholar and Scopus.

1.4. The agreed brief was not to offer specific policy recommendations but to review evidence.

References

Hoekman, Bernard, Rollo, Jim, Wilkinson, Rorden and Winters, L. Alan (2016), 'UK trade with developing countries after Brexit. What is the evidence base? Where are the research gaps', commissioned report for the UK Department of International Development, 21 October.

Chapter 2
Institutional architecture: history and conclusions

Rorden Wilkinson

1. Introduction

1.1 This Appendix reviews the literature on the commercial arrangements between Europe and the ACP from its inception to the present day drawing together insights from key interventions in the extant literature. It explores briefly the emergence of institutional arrangements between Europe and its former colonies under Part IV of the treaty of Rome; it considers how and why institutional evolution took place through various forms of association, iterations of the Lomé conventions, the negotiation of the Cotonou agreement, and the move towards EPAs; it identifies areas of best and suboptimal practice to consider the value that this relationship has had for Europe as well as the ACP states; and it attempts to abstract—in as much as it is possible—what the affects have been on the UK and its relations with its former colonies as well as those of the other European powers.

1.2 The Appendix also maps out how and why the institutional arrangements evolved in the way that they did. It identifies areas wherein institutional pathologies—that is, probabilistic tendencies that generate likely forms of behaviour and policy action eschewing others—have emerged and become entrenched while also pointing to those arrangements that promised (and genuinely delivered) innovation.[1] It establishes the current state of play in relations between the EU and the ACP, identifying key and pertinent issues for consideration. And it suggests what kind of provisions might underpin a refined and more fit-for-UK-purpose relationship with ACP states after Brexit. In so doing, we point to the elements of what an ideal further UK/ACP preferential FTA would look like focusing on a bespoke system that draws lessons—and in key areas departs from—existing practice.

2. An overview of trade governance between the EU and the ACP states

2.1 As we noted in our previous report (Hoekman, Rollo, Wilkinson and Winters, 2016), existing EU rules governing trade with developing countries fall into two categories:[2] (i) those rules that relate to trade with countries that were former colonies of EU member states; and (ii) those rules that deal with trade with other developing countries. Those countries that were former colonies enjoy a level of preferential access into the European Single Market over and above that which is offered to their non-former colony counterparts. Much of this extra preferential access derives from favourable differences in the rules of origin (RoO) that govern trade between the two groups (Bartels, 2007), although established trading relationships also act to facilitate commerce and have been found to have an advantageous effect (Commonwealth Secretariat, 2015). We deal with RoOs in a separate Appendix.

2.2 Historically, the former colonies of the EU member states have benefited from longstanding market access and preference arrangements at levels above their non-former colony counterparts.

[1] See Bulmer, 1993 for an exemplar of EU institutional analysis.
[2] Indicative literature on EU development policy can be found in Bartels, 2007; Asante, 1981; Moss and Ravenhill, 1982; Cosgrove-Twitchett, 1978; Arts, 2003; Langan, 2016; Price, 2016.

This was enshrined in the EEC's founding treaty—the 1957 Treaty of Rome—and much of the architecture of EU-ACP trade has evolved from that time. It was not, however, a partnership of equals. None of the colonies and associated territories were consulted about their inclusion in the Treaty (see van der Lee, 1960: 370-1). Communications between the associated countries and territories were mediated through the (former) colonial state with little substantive representation on the recipient's part. Indeed, the treaty was not originally intended to include provisions for the association of former and current colonies at all. It was only French insistence that a means of incorporating its former colonies and associated territories be found that led to the inclusion of Part IV of the Treaty of Rome. Even then, this was the result of a threat by the French delegation to withdraw from the negotiations altogether if its demands were not met. The result was a form of association that was crafted around French interests in maintaining a relationship with its former and current colonies that shaped the early development of the EEC's trade and development architecture and which included a measure of the re-distribution of the financial burden for doing so across the other members of the Community.[3]

2.3 Under Part IV of the Treaty of Rome (Articles 131-136), developing countries were extended the same commercial treatment as that conveyed to the other members of the EEC. Opportunities to tender for EEC investment funds were opened up on an equal basis, albeit that applications were mediated—in the early years at least—by the (former) colonial state rather than sent directly to the Commission. Firms from the former colonies were nominally treated in a non-discriminatory fashion. Imports from the developing countries entering into the EEC benefitted from progressive liberalisation with a commitment to an end goal of duty-free entry. This was not a strictly reciprocal requirement as the associated states were permitted to levy customs duties that aimed to facilitate the development of domestic industries and/or were for fiscal purposes, with the caveat that once erected these would be progressively reduced at some future—but unspecified—point (Article 133).

2.4 The association agreement under Part IV lasted until 1963 when it was replaced by the Yaoundé Convention (of which there were two iterations—Yaoundé I in force 1964-1969; Yaoundé II in force 1971-1975). Yaoundé changed very little of the substance of the relationship between the EEC and the associated states, many of which had since become independent, although it did lead to a slight expansion in their number. Notably, however, in 1969 the EEC also negotiated the Arusha Agreement with three former British colonies—Kenya, Tanzania and Uganda—entering into force in 1971. These endeavours were, however, largely incremental in form. Almost all of the provisions were carried over with the only changes in substance coming from the need to deal with an expanded number of parties and the financial demands this necessarily entailed.

2.5 From 1975 onwards EEC development policy changed significantly. While core features of the preceding arrangements were carried forward, the accession of the UK, and the bringing together of the Yaoundé and Arusha agreements expanded the number of developing states that were

[3] The associated countries and territories covered by Part IV of the Treaty of Rome were: French West Africa: Senegal, French Sudan, French Guinea, Ivory Coast, Dahomey, Mauritania, Niger, and Upper Volta; French Equatorial Africa: Middle Congo, Ubangi-Shari, Chad and Gabon; Saint Pierre and Miquelon, the Comoro Archipelago, Madagascar and dependencies, French Somaliland, New Caledonia and dependencies, French Settlements in Oceania, Southern and Antarctic Territories; The Autonomous Republic of Togoland; The trust territory of the Cameroons under French administration; The Belgian Congo and Ruanda-Urundi; The trust territory of Somaliland under Italian administration; Netherlands New Guinea. An original version of the treaty can be found at: https://www.cvce.eu/en/obj/treaty_establishing_the_european_economic_community_rome_25_march_1957-en-cca6ba28-0bf3-4ce6-8a76-6b0b3252696e.html

recipients of EEC preferential arrangements from 19 to 46. This had a significant impact on the character, as well as the shape and development of the EEC's trade and development architecture thereafter.

2.6 In 1975 the Lomé Convention was agreed (entering into force in 1976) between an expanded EEC (to include the UK, Ireland and Denmark) and the then newly-referred to African, Caribbean and Pacific (ACP) states (numbering 46 at the outset but now comprising 79).[4] The Convention extended significantly—in geographical scope as well as in substance—trade and aid relations between the EEC and the ACP. This arrangement was refined and extended again under three further iterations (known as Lomé II, III and IV respectively) and was replaced by the Cotonou Agreement in 2000. Crucially, whereas under Part IV association and the Yaoundé and Arusha conventions market access between the EEC and the ACP had been reciprocal (albeit weakly so), under the Lomé Convention trade preferences were granted on a non-reciprocal basis with ACP products entering the European market either free of duty or else as beneficiaries of relatively generous quota arrangements. The effect was to advantage imports from the ACP and to act as a diversion to goods from third party developing countries.

2.7 Added to the market access provisions under the Lomé Convention was a mechanism for stabilising export earnings to cover shortfalls caused by dramatic fluctuations in the volume and price of commodities beyond the control of the ACP countries. This system, know as STABEX, targeted particular largely agricultural commodities, the list of which was steadily increased over successive iterations of the Convention, and involved a direct transfer payment from the Commission to the country concerned. While the system was designed to provide stability in exchange earnings it was also criticised for its complexity; delays in the length of time it took to transfer funds, and insufficiencies of the financial recourses available (Ikiara, 1989); discriminatory judgements on the part of the European Commission; limited effect on commodity price fluctuation; its capacity to act as a disincentive to diversify out of "shock-prone" crops; the use of STABEX to target just particular crops rather than wider societal and structural issues that may lie behind or be affected by crop-failures; the depressionary effect that inward aid transfers like STABEX can have on the real incomes of export producing farmers (so-called Dutch disease); and the steady erosion of the idea that the fund was a compensatory mechanism for farmers and sectors badly hit becoming seen instead as a general source of aid revenue and as indiscriminate cash transfers (i.e. to treat the transfers as fungible)—a concern often voiced by the UK (see Kokole, 1981; Hewitt, 1983; 1987; Ravenhill, 1984; Collier et al., 1999).

2.8 The value and worth of the Lomé Conventions split opinions. For some, there were seen as genuine movements forward in a new partnership between the developing and industrial worlds. For others, they merely served to lengthen the shadow of European control of its former colonies. Where a measure of agreement did exist was on the underwhelming results each Convention produced. Even the Commission described the impact of the Lomé Conventions as 'patchy' (European Commission, 1996: 11). As Marjorie Lister put it in a candid assessment, 'the Lomé Convention has often appeared as the feast of the Barmecide—where the diners, the developing

[4] Comprising 48 African, 16 Caribbean and 15 Pacific states. Note that the original six members of the EEC would not permit the large countries of South Asia to come under the umbrella of their preferences, even though the latter were former UK colonies.

countries, are bombarded with a luscious array of tantalizing sights and smells, but never in fact get anything to eat' (Lister, 1998: 375).

2.9 The conclusion of the Uruguay round of the GATT in 1994 and the establishment, on 1 January 1995, of the World Trade Organization (WTO) presaged a more significant moment of change in Europe's relations with the ACP. Until that point, the passage from Part IV of the Treaty of Rome onwards had been one of steady institutional evolution consistent with a deepening and widening of policy apparatuses responding to a fundamentally unchanging understanding of Europe's role in the development efforts of its former colonies (see Olumfemi and Faber, 2004; c.f. Meyn, 2008), albeit that—as we note earlier—a notable step-change in scale and coverage occurred with the entry into force of the Lomé convention. Mindful that the Lomé Convention would be the subject of greater scrutiny under GATT 1994 rules[5] over its derogation from Article 1 (MFN) the Commission sought to gain a waiver under GATT 1947 rules. In December 1994, a 5-year waiver for aspects of the Lomé Convention's trade provisions was granted (Grynberg, 1998: 11-13; also Thagesen and Matthews, 1997; McQueen, 1998). However, subsequent EU efforts to secure a waiver for the continuation of Lomé-type arrangements were rejected. The on-going and long-running dispute between the EU and Latin American banana producers led the latter group to oppose the waiver and so the EC turned back towards the idea of developing system of reciprocal preferences between itself and the ACP states (see de Melo, 2015).

2.10 The banana dispute was not just a simple source of pressure for change on the EC-ACP trade and development architecture, however. For many some it also exemplified some of the dissonance that had emerged between the EC's interlocking and contradictory regulatory regimes and foreign policy and development objectives. As Karen Alter and Sophie Meunier put it, the 'contested Europe-wide banana policy was an artifact of nesting – the fruit of efforts to reconcile the single market with Lomé obligations which then ran afoul of WTO rules' (Alter and Meunier, 2006: 362). This dissonance only increased over time as the EU has sought to add further trade agreements with other partners—developed and developing—to its commercial architecture, these agreements being substantively different from the ACP arrangements (as well as WTO-compliant), but were added largely without a wholesale process of legislative harmonisation.

2.11 Pressure to reform the Lomé regime grew within the EU and dovetailed with a post-cold war/post-Maastricht enthusiasm to encourage regionalism—and interregional connections—globally as stepping-stones to multilateralism (for a general discussion see Wilkinson, 1998). The EU signalled its desire to move toward a new era in its relations with the ACP in its 1996 *Green Paper on Relations between the European Union and the ACP Countries* (European Commission, 1996). In the paper, the Commission outlined the necessity for a change in the relationship that moved beyond what is called the 'post-colonial period' toward a genuine 'partnership'.

2.12 Four options for replacing Lomé we outlined. These lay on an axis from the largely 'leave alone' to the 'reform in Europe's image.' They comprised:

- some minor fettling of the existing arrangement;
- the addition of a series of bilateral agreements that would better account for economic differentiation among ACP states;
- the introduction of regional agreements among sub-sets of ACP states; and

[5] The updating of GATT's legal framework over its 1947 incarnation.

- a specific agreement with least developed states (particularly land-locked developing states) tailored to their needs (European Commission, 1996: viii-ix, 44-45).

2.13 Of these, option one was undesirable because it merely replicated the status-quo; option two was largely more of the same with additional legal agreements added, but which would ultimately preserve the existing system; and option four was—by the Commission's own admission—considered politically and financially inappropriate (European Commission, 1996: ix). The clear preference was for option three as the promotion of ACP regionalisms fitted well with the EU's overall ethos and its evolving commercial and development policies as well as its Common Foreign and Security Policy (CFSP) (see Rosamond, 2014; also Telò, 2014). And of course regional arrangements could be made consistent the provision of Article XXIV of the GATT.

2.14 The Green Paper (European Commission, 1996: xiii) also put forward 4 options for the commercial content of the post-Lomé arrangement worth noting:

- to continue providing non reciprocal preferences to specific ACP states with the evolution of co-operative elements into some trade related fields such as standards, intellectual property rights, and competition policy;
- a simple application of the EU's GSP system;
- full reciprocity; or
- a system of differentiated reciprocal arrangements between the EU and different ACP countries and groups of countries that may also take in some evolved commercial aspects as in option one.

2.15 As with the overarching architecture, the regional option was preferred. The Commission concluded:

> The creation of political and economic areas which go beyond national boundaries has been recognized as a necessary step for Europe and is so for the ACP States as well. The path of regional cooperation and integration seems advisable not only because of the generally inadequate economic size of many ACP countries but also because such an option can encourage political leaders to adopt a more strategic approach to developing their economies. It is also likely to speed up the socio-economic transformations which are needed to develop a market economy and do away with clientelist structures often organized on a national basis (European Commission, 1996: 43-44).

2.16 In large measure, the Green Paper set the pace for future EU-ACP relations. In June 2000 (entry into force April 2003) the Cotonou agreement was negotiated as a transitional arrangement founded on three "co-operative" pillars—development co-operation, political co-operation, and economic and trade co-operation—that set out the broad outline of the parsing out of EU-ACP co-operation into a series of Economic Partnership Agreements (EPAs). The agreement promised the replacement of the unilateral preferences that Europe had accorded to ACP countries under the Lomé convention with reciprocal obligations that looked very much like the arrangements foreshadowed in the Green Paper. Unlike previous arrangements, these obligations would require ACP countries to provide free access to their own markets for EU exports in return for the same degree of access for their own products into European markets. However, the requirement to reciprocate would be less stringent on the ACP states than on EU member states because it exempted 15 to 20 % of the former's imports from liberalization in perpetuity and permitted extensive transition periods for many of the products that were to be wholly liberalized. In addition, those ACP countries classified as LDCs felt little need to open their markets to EU exports in order to receive preferential access to the EU because they already received such access under EBA (see Heron, 2014; and Woolcock, 2014).

2.17 In November 2001, WTO members granted the EU and the ACP a waiver for the Cotonou agreement allowing the EU to continue to operate a preferential arrangement with the ACP. However, it stipulated that the waiver could run only until 31st December 2007, whereupon discrimination against non-ACP developing countries (that is, against the MFN commitment specified in Article 1 of the GATT) had to end.[6] The decision to grant a waiver for the Cotonou agreement under WTO rules put an end date to the point at which the EU could operate a preferential but discriminatory (vis-à-vis other developing countries) commercial relationship with ACP countries.

3. Negotiating the EPAs

3.1 The agreement of the Cotonou waiver formally demarcated the transition period during which a new regime between the EU and ACP would be devised. This saw the EU attempt to evolve its preferential relationship with the ACP from one that was in contravention of WTO rules on non-discrimination (Article 1, MFN) to one wherein discrimination is permissible—that is, under Article XXIV of the GATT (dealing with customs unions and FTAs).[7]

3.2 As might have been expected, the European Commission and the ACP approached the EPA negotiations with different perceptions of what might be feasible and, as a result, the kind of agreements that would (and could) be concluded (see Hurt, 2003; 2012; and Carbone, 2013 for overviews). For the Commission, the aim of the negotiations was to agree a more effective institutional arrangement that would comprise comprehensive agreements covering more than just trade in goods—all that would have been required by a narrow FTA if that option had been chosen to make the arrangements WTO compliant (Stevens, 2008: 212)—to also include trade in services as well as behind-the-border measures such as government procurement and competition policy.

3.3 ACP concerns, however, centred on their perceived lack of institutional and administrative capacity to be able to undertake such extensive programmes of reform and a desire to seek binding commitments from the EU to support EPA implementation as well as to offset any losses they believed they would incur—particularly revenue-wise—from increased exposure to competition. Complicating matters further was a lack of clarity among the participating parties about whether the EPAs were actually trade or development focused and the sheer complexity of the agreements that the EC sought to achieve (Heron, 2014; also Heron and Murray-Evans, 2017).

3.4 There were also varying degrees of enthusiasm among the ACP countries for the creation of a series of EPAs. This enthusiasm did not fall neatly along lines of preference dependence, however (with those more dependent being the least enthusiastic and vice-versa). The majority of the CARIFORUM[8] countries along with Papua New Guinea, Lesotho and Mozambique, for instance, were more enthusiastic and lower levels of dependence on preferences than Namibia and Ghana

[6] The text of the Doha waiver is available at:
https://www.wto.org/english/thewto_e/minist_e/min01_e/mindecl_acp_ec_agre_e.htm
[7] The text of the GATT is available at:
https://www.wto.org/english/res_e/booksp_e/analytic_index_e/gatt1994_01_e.htm#top
[8] Guyana and Haiti were exceptions. Both initially expressed reservations and did not attend the 15 October 2008 EPA signing ceremony. Guyana did, however, sign the agreement 5 days later on 20 October 2008. Haiti eventually signed the EPA on 11 December 2009. Haiti is notable as the only LDC in what is otherwise a uniform (for the ACP) CARIFORUM region in terms of levels of development.

who were heavily dependent on preferences but were critical of the EPA process (Heron and Murray-Evans, 2016: 470). Concerns about the value of the EPAs for LDCs were, nonetheless, pronounced (see DiCaprio and Trommer, 2010).

3.5 The outcome was that the negotiations became bogged down, with the consequence that positions became more rather than less entrenched. The negotiations were scheduled to take place in two phases. Phase one intended to be a macro-level negotiation between the EU and the ACP as a whole; whereas phase two was to involve bilateral negotiations between the EU and the then-as-yet-to-be-specified regional groupings.

3.6 Problems abounded from the outset, however. Phase one was hurried as the Commission sought to press ahead with the EPA negotiations. However, this haste caused problems over the selection of the regional groupings to be involved in phase two. The Cotonou agreement stipulated that the ACP should decide the regional groupings at the core of each of the EPAs. However, the EU had a clear idea of their constitution from the outset (much of which was prefigured in the 1996 Green Paper) and put pressure on the ACP to agree to particular groupings that would act—for all intents and purposes—as individual commercial entities (and thus be involved in a process of meaningful economic integration) comprising states that would be members of only one EPA. However, while identifying a coherent regional grouping was relatively straightforward in the Caribbean and the Pacific it was far from clear-cut in Africa.

3.7 The problem was that the identification of coherent regional groups in Africa was clouded by the existence of multiple regional associations, often with mandates that were at cross-purposes with one another. While the Commission did eventually allow ACP states to decide, it nevertheless sought to ensure that the capacity of particular regions to be able to meet the negotiating timetable of December 2007 was a key selection criteria. As Heron and Murray-Evans argue,

> this created numerous problems. For one, in no case other than the EAC – whose EPA group membership originally straddled the East and Southern and SADC-minus configurations before it broke away in 2007 to form a fifth African sub-region – did the EPA configuration match the contours of an existing regional project. In some cases (e.g. Mauritania), ACP countries were not part of any eligible existing regional integration process and were therefore made to fit into the nearest regional negotiating configuration without being a part of the underlying regional institution. In other cases, existing regional groups contained non-ACP countries that were excluded from the EPA negotiations. These included Egypt and Libya, which are members of COMESA, and South Africa, which was only allowed to join the SADC EPA group at a late stage in the negotiations. In eastern and southern Africa, existing regions were split into as many as three (and later four) negotiating groups. The reality of the configurations, then, was far from the ideal set out by the EU that the EPA groups should all constitute regions 'effectively engaged' in economic integration (Heron and Murray-Evans, 2016: 474).

3.8 Group identification was not the only problem. Variances in regional institutional capacity also played a role. With the exception of the Caribbean's Regional Negotiating Machinery (see Jessen, 2004), the other ACP groupings have not had cross-regional authorities to act on the behalf of the states involved or the experience of operating as if they had. This has meant that negotiating positions have had to be co-ordinated across groups of states often differing in terms of levels of development and strategic interests, wherein institutional capacities are low, and which had varying degrees of existing co-operation among participants.

3.9 Heron and Murray-Evans argue it was obvious from the outset that viable regional institutions would be required for agreements to be concluded and that a clear relationship exists between the uptake of EPAs and institutional capacity in each of the ACP regions (Heron and Murray-Evans, 2016: 471). Indeed, the Commission had noted as early as the 1996 Green Paper that attention was required as much to the political and institutional dimensions underpinning the move to the EPAs as to their commercial aspects. As the Green Paper put it, "[t]he institutional aspects of cooperation need developing because of administrative dysfunctionality and governance problems in many countires [sic] and because the rule of law needs to be restored or consolidated to bring about the conditions for development and a reduction in inequality and poverty" (European Commission, 1996). Chris Stevens notes that the lack of coherent cross-regional negotiating institutions in the ACP groups is contrasted starkly with the situation in the EU, wherein a single negotiator (the European Commission) operates without intrusive and ongoing oversight from member states and operates on the basis of a previously agreed negotiating mandate (Stevens, 2008: 212-213).[9]

3.10 This variance in institutional capacity and regional integration has underpinned differing degrees of appetite for negotiating comprehensive FTAs across the ACP, with the greatest enthusiasm coming those groupings with histories of negotiating as transnational entities (the Caribbean and to a lesser extent the Pacific). However, the EPA negotiations have also been hampered by two other issues. First, each region has high and differing levels of differentiation among its members in terms of the states involved, the commercial interests at stake, their levels of development, and the extent of aid-dependency and integration of each member country into the world economy. Second, the EPAs are not simply mechanisms of trade governance alone. Rather they are vehicles of economic transition from long-standing trade and aid regimes to regional trade agreements that are consistent with WTO disciplines both in terms of the rules that govern commerce within the ACP groupings as well as with the EU, and that address issues of poverty reduction through reciprocal liberalisation (European Commission, 2017a: 2).

3.11 This second point is important and is worth dwelling on a little further. Because the EPAs mark a paradigm shift (DiCaprio and Trommer, 2010; Young and Peterson, 2013) away from a series of *sui generis* preferential aid and trade regimes operating largely outside of international trade rules to reciprocal and contractual arrangements that are WTO compliant, this has brought with it a transition process that is more dramatic—in terms of the changes envisaged—than the incremental institutionalism that the introduction of all the previous arrangements entailed. This creates a number of problems, principally around the 'stickiness' of old structures; familiarities with existing ways of operating; incentive structures that appeared to offer little more than existing market access regimes; a reluctance to give up a known regime for arrangements that have not found universal favour and have been criticised for the steepness of the transaction costs involved; difficulties in transitioning from one regulatory framework to another; a lack of overall as well as anticipated funding and technical support; and the relatively limited welfare gains projected (South Centre, 2013; de Melo and Regolo, 2014).

3.12 It is also the case—as we noted above—that much of the preferential market access granted to LDCs under trade-led development programmes such as EBA has been eroded by the EU's more general bilateral and multilateral trade policies. Young and Peterson (2013) argue that this is the product of a multiplicity of policy subsystems within the EU that, while logical individually,

[9] For a discussion of European style regionalism in Africa see Fioramon and Mattheis, 2016.

collectively create dissonance. They suggest that this dissonance results from three differing emphases in EU policymaking: (i) when trade is seen as development policy; (ii) when development considerations are added into general commercial arrangements; and (iii) when the EU's international policies have development effects (Young and Peterson, 2013: 498-499). The key lesson for the UK here is to ensure coherence in policy design and effect across the full range of commerce-facing programmes and initiatives. This is a significant task but ought to be less daunting and more feasible than the EU's pan-union endeavour. It is nonetheless worth bearing in mind that a lack of coherence is one factor, among the other factors pointed out above, that explains why almost a decade after the end of the Doha waiver, only one EPA (with CARICOM) has been agreed and implemented.

4. *Further reflections on the EPAs*

4.1 Successive EU-ACP arrangements have come in for sharp criticism. The EPAs are no exception. The prevailing view of Europe's formalised relations with the developing world up until the Lomé convention was one of thinly veiled neo-colonialism with progressive elements emerging thereafter (see Gruhn, 1976; Zartman, 1976; Assante, 1981; Ravenhill, 1985). Yet despite significant changes in substance, a proportion of the literature has continued to deride EU-ACP architectures as mechanisms for elongating the shadow of colonial rule and extracting asymmetrical gain as well as Eurocentric devices of moral paternalism and neoliberalisation (see Langan, 2009; de Ville and Orbie, 2014 Staeger, 2016; Robertson, 2017). In addition, a number of studies have shown that the long arc of Europe's trade and development architecture has contributed to a relative lack of development in the ACP as a broad group by creating an overreliance on European markets which has act as a break on, among other things, export diversification and economic growth (Andriamananjara et al., 2009; Busse et al., 2004; Karingi et al., 2006; Stevens et al., 2008; Morrissey et al., 2007; Ponte et al., 2009; also Alizadeh and Agosin, 1992: 439-440).

4.2 Equally, the literature has drawn attention to the need for EPAs to be sensitive to the capacity (or not) of ACP states to replace forgone tariff revenues from liberalisation, their ability to offset any trade diversion that may occur, the capacity to appropriately regulate liberalised service industries, and the myriad factors (political, economic and social) inhibiting trade liberalisation within each of the EPAs. For Hinkle and Schiff (2004: 1322), for instance, overcoming the risks associated with EPAs requires the adoption of a benevolent, development-oriented approach in which European commercial interests are subordinated to the needs of ACP states. Whereas, for Heron and Murray-Evans (2016), too much emphasis has been placed on the reciprocal aspects of the EPA process and not enough on the political need to establish competent institutions to facilitate intraregional trade co-operation and liberalisation (see, also, Keijzer and Bartels, 2017).

4.3 As noted earlier, the poor fit between the EPAs and the EU's other trade and development regimes has raised notable points of tension. For instance, the EBA initiative provides for unrestricted quota-free, duty-free access to its market for all goods originating in LDCs except those arms and armaments. This is an automatic preferential market access scheme currently utilised by LDCs and it is bound in time only by a grace period of 3 years after the date at which a country graduates from LDC status (European Commission, 2014; LDV IV Monitor, 2016). However, under the EBA all commodities otherwise subject to EU commodity protocols are granted unrestricted market access. The result is to complicate the EPA negotiating process with multiple and often contradictory preferential environments creating different incentive structures for LDC and non-LDC APC states (see Hinkle and Schiff, 2004: 1323-1324).

4.4 Complicating matters further has been a lack of progress at the multilateral level on trade and development issues. Aside from limited LDC-facing outcomes, an Agreement on Trade Facilitation, and an expansion of the 1996 Information Technology Agreement (ITA), little of substance has so far been agreed under the auspices of the Doha Development Agenda (DDA) negotiations (Wilkinson, Hannah and Scott, 2014; 2016). This outcome, and the decision to respect different positions on the future of the round at the WTO's 10th ministerial conference in Nairobi, raises concerns about the capacity of the multilateral trading system to fulfil the role attributed to it in the SDGs (Wilkinson, 2016). Moreover, it raises the prospect that without a fully concluded development round and given the tendency by the largest trading nations to pursue trade openings plurilaterally—that is, among selective subsets of members—and also the well-documented ACP dissatisfaction and generally high levels of negotiating fatigue (for instance, Meyn, 2008; and Weinhardt, 2017), the EPA negotiating process may languish further. This is irrespective of whether the EPAs take on a renewed focus for EU activity in the face of diminishing multilateral traction and whether or not its major trading competitors pursue plurilateral and mega-regional trade deals elsewhere (see McGuire and Lindeque, 2010; Curran, 2017).

4.5 Some of these reflections are useful for thinking about how a UK trade arrangement might improve upon the existing EU architecture. Others are less compelling but are worth bearing in mind when thinking about the potential reception of any new UK arrangement. In terms of those criticisms that are perhaps the most valid, it is clearly the case that changing trade architectures imposes disproportionately greater costs on developing country partners than on the European states. Moreover, the capacity to absorb these costs—not only financially but also capacity-wise—is far lower for developing countries than it is for their industrial counterparts.

4.6 There is also a further dimension here worth noting. In all cases, the lion's share of the content of—and ideas for—EU-ACP arrangements have come from Europe and have been natural extensions of settled or evolving EU rules, practices and norms and/or agreed upon strategic imperatives. As a result, changing architectures have been consistent with, rather than costly impositions on, the evolving European political economy, whereas, in all cases, commercial architectures have been imposed from the outside on the developing country partners. Moreover, while it is the case that some ACP states have been able to implement and benefit from the EU's trade and development regimes better than others, all have incurred absolute transaction costs that European partners have not. For this reason, any future UK arrangement ought to seek to minimise as far as is possible unnecessary transaction costs particularly those that would be incurred if anything other than an evolutionary process were put in place.

4.7 It is also the case—and to underline a point made above—that a series of impact studies have shown that the balance of costs and benefits is likely to vary dramatically across EPA participants with the least developed, resource poor faring worst (for example, Andriamananjara et al., 2009; Caribbean Policy Research Institute, 2009; Busse et al., 2004; Karingi et al., 2006; Stevens et al., 2008; Morrissey et al., 2007; Ponte et al., 2005; Bilal, et al., 2007). In addition, studies point to significant negative macroeconomic effects of preference erosion in particular regions with large agricultural commodity sectors such as banana production in the Caribbean most vulnerable (Payne, 2006; Fridell, 2011; Mlachila, Cashin and Haines, 2013). Goodison (2006) explores the sources and impact of preference erosion for ACP states, particularly those dependent on banana and sugar exports and considers policy responses.

5. The Context of the EPAs

5.1 The alternative to bi-lateral relations between the EU and its former colonies is the broader preferential regime embodied in the Generalised System of Preferences (GSP). This will fall entirely within the UK's discretion and policies will need to be designed for it. The latter are not our topic here, so we say no more, but we observe that if reforms are to made to the EPAs, they will probably have implications for the GSP, and vice versa. Hence we conclude with a very brief discussion of the GSP.

5.2 EU trade with third party developing states has come to be governed by a GSP and GSP+ regime, which also comprises the EBA initiative.[10] The GSP initially offered all developing countries (a self-declared status in the WTO but one which broadly maps onto UN classifications) non-reciprocal preferential access to developed country markets (including the EU's) but were subject to a number of limitations which inevitably reduced their commercial value. GSP+ offered deeper preferences for selected countries that were willing to adopt international conventions on human and labour rights. A reform of the GSP in 2014 reduced the geographical coverage of the GSP but improved its degree of preference.

5.3 Since 2001 the EBA initiative has granted all LDC products free entry into the European market with the exception of exports of arms and armaments. With the exception of sugar—which has seen imports into the EU rise in accordance with a gradually increasing quota escalator—the overall effect of the EBA initiative on LDC exports has been relatively modest with notable variations among LDCs—some, such as Bangladesh have seen decent gains while in others, particularly African LDCs, little observable effect has been observed (Gradeva and Martínez-Zarzoso, 2016; Kopp, Prehn, and Brümmer, 2016; also Gasiorek et al. 2010; Siles-Brügge, 2014). Where the performance has been modest and less-than-expected it has been the result of the limited capacity of LDCs to take advantage of the preferences accorded to them and because some rules of origin act as an inhibitor to sourcing inputs from lower cost areas outside national boundaries. That said, Faber and Orbie argue that the impact of the EBA should not be seen to be trade performance alone. They suggest that the initiative has played an important role as a catalyst for a more general evolution of the EU's wider trade policy (Faber and Orbie, 2009).

5.4 Finally, it is worth pointing out that as EU development policy has evolved three imperatives have emerged which the UK government may wish to carry forward. First, there is clear evidence and strong argument to do away with arrangements that treat developing countries as a homogenous group and instead to move to policies that are attuned to their particular economic and social needs. Second, what is clear from the preceding discussion is that a lack of policy and legislative coherence has been a serious impediment to the effectiveness of EU policy. Given that all arrangements need to be compliant with WTO rules it would only be sensible to ensure that UK policy coherence begins from that point. Third—and nevertheless—the development of some states is contingent on the manner in which they transition away from an historical reliance upon, and attachment to EU (and other) preferences and this ought to be borne in mind when formulating policy. This, in turn, requires that bespoke elements will need to be woven throughout the UK's trade and development architecture.

[10] For discussion see Bartels, 2007b; Siles-Brügge, 2014; Young and Peterson, 2013; Gradeva and Martinez-Zarzoso, 2016; Faber and Orbie, 2009.

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Chapter 3
The Generalised System of Preferences and UK trade relations with selected categories of developing Countries: A case for reform of Rules of Origin?

Jim Rollo[11]

1. Introduction

1.1. Currently the European Union is responsible for Britain's trade relations in goods and most services with all non-members and the policy is administered by the European Commission (EC). Specifically in the context of developing countries the Commission is responsible for the EU's relations with the Least Developed Countries (LDC) through the Everything but Arms (EBA) scheme administered as part of the GSP. There are two other GSP Schemes: the standard scheme which applies to Low and Middle Income countries and the GSP+ scheme which offers better market access than the standard scheme in exchange for commitments to meet various international social, human rights and sustainable development norms. The key common element in these 3 schemes is that the beneficiaries are given varying degree of preferential access to EU markets without being required to grant reciprocal preferential access to European goods.

1.2. Since 2010 the EU has significantly reformed its GSP scheme starting with Rules of Origin (RoO) and then graduating a number of long standing beneficiaries while adjusting the benefits accruing to those countries remaining in the scheme. And the process of review and reform continues with the EC currently undertaking a review of the impact of the reforms since 2010.

1.3. The UK announced that it will secure existing duty-free access for the world's poorest countries (LDCs) to UK markets and aim to maintain current access for other developing countries which benefit from reduced or zero tariffs, see DIT (2017) for EBA and speech by the Secretary of State for International Trade Geneva, July 2017. This approach was widely proposed by commentators and academics see Rollo 2016, Baldwin, Collier and Venables 2017, UKTPO 2016 as an initial step. The question is whether the reformed GSP and the embedded system of rules of origin represents a bench mark for the future of UK trade policy with many developing countries. The rhetoric of the British government projecting an intention to be a champion of free trade leaves open the possibility that it may wish in due course to implement a more liberal GSP scheme than the EU scheme it plans to leave.

1.4. The analysis presented here has its roots in Part 5 of Hoekman et al (2016). The earlier analysis discussed RoO extensively and notably discussed issues around cumulation rules as a way of qualifying the impact of RoO.

1.5. In what follows we extend the analysis of EU reform of GSP RoO as discussed in Hoekman et al (2016) from the level of the EU to examine the behaviour of GSP exports to the UK over the period 2010-2015. We will present some initial qualitative analysis of data on uptake of GSP Preferences on the British market under the three aspects of the GSP: EBA, GSP+ and standard GSP with differing measures of preference utilisation as the indicators of impact of each trade policy regime (all at the level 8 digit HS5. The role of changes in Rules of Origin regimes will be explored in this context.

[11] I am grateful to Hector Gutierrez-Rufranco for help organising the data

2. *The Data*

2.1. The basic data is British imports by value (000 €) at HS 8 digit product level from every non EU country in the world[12] for each year from 2010 to 2015. The volume of total trade in each product line from each country is reported and then the values are allocated to the relevant trade policy regime under which they entered the UK (and hence free circulation in the EU). The three core regimes are most favoured nation (MFN), GSP and Other Preferences. Each in turn is split into 4 categories: normal zero (tariff)[13], normal positive (+ve)[14] (tariff), quota zero[15], quota positive[16]. One final set of categories by which the data is analysed is the trade regime the goods are eligible to enter the EU by: MFN, GSP and Other Preferences irrespective what regime they did enter the EU[17].

2.2. The trade data was aggregated to produce totals for country groups representing relevant EU trade policy regimes: EBA[18], GSP+ [19] and standard GSP[20]. The country groups are taken from the DG Trade website as of July 2017.

3. *Preference Utilisation*

3.1. The key tools to be used are measures of preference utilisation measured as variants on the ratio of the volume of trade from a given country or group of countries using a given preference and the total of trade in that product or group of products from the preferential partner. This is a somewhat contested area (see Harris 2017 footnote 9) and the denominator of the ratio may need to be adjusted. Two common adjustments are a) to reduce total imports from the beneficiary by t trade that is covered by zero MFN tariffs thus where there is no preference margin. A second alternative is to use the total volume of trade that is eligible to receive the target preference whether or not it has been used rather than total trade. We will use each of these in what follows.

4. *Some preliminary analyses: the EBA*

4.1. The EBA is the largest element in the GSP system at least as measured by number of countries which are members (just short of 50). It is also by some way the most liberal, offering duty-free   quota-free trade for any goods from the LDC (except weapons). Table 1, columns (1) and (2) show the growth in EBA partners' exports at HS 8 digit to the UK (as measured by UK imports), which almost tripled between 2010 and 2015 reflecting perhaps both the cumulative effect of the progressive abolition of tariffs and quotas and the revision in the EU RoO facing EBA exports. The latter shifted from a system of a minimum of 60% domestic value added to a maximum of 70% of foreign content. Essentially this was equivalent to a halving of the minimum domestic value added. It brought the EU RoO very close to the LDC target for RoO of a maximum foreign content by value of 75%.

4.2. The other elements in Table 1 suggest that, since 2010, the LDC exports of the goods that pay zero MFN tariffs, ie offer no preference margin to the EBA states, have begun to decline in importance notably since 2013 (column 3). At the same time the share of goods facing zero tariffs under EBA but positive tariffs under MFN has been increasing notably as a share of total trade (column 4), and both as a share of trade excluding MFN zero tariff (column 5) and of GSP eligible trade (column 6), ie all the trade that was eligible for the preference was taking advantage of it.

4.3. This growth in exports to the UK suggest that the reform of the RoO system for GSP in 2010 states has had a positive effect on export growth. But note that when the UK leaves the EU it will no longer

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[12] In principle: South Sudan is not in the database (for understandable reasons) nor as far as can be seen is Tuvalu. Both are LDCs and so potential EBA beneficiaries

[13] meaning entered with a preferential tariff of zero

[14] meaning entered with a preferential tariff greater than zero but less than the applied MFN level

[15] meaning a tariff quota with a zero tariff inside the quota

[16] meaning a tariff quota with a positive tariff (but less than MFN) inside the quota

[17] There are also categories for trade with unknown entry regime. The amounts of trade are very small

[18] source: http://trade.ec.europa.eu/doclib/docs/2017/july/tradoc_155840.pdf

[19] http://trade.ec.europa.eu/doclib/docs/2017/july/tradoc_155842.pdf

[20] http://trade.ec.europa.eu/doclib/docs/2017/july/tradoc_155841.pdf

be a member of the EU customs union and entry to its market will hence no longer constitute being in free circulation in the EU. To the extent that EBA states were using the UK as an entrepot for the EU market as a whole that trade may disappear after BREXIT. On the face of it the UK originating inputs in EBA countries would not count as EBA Content unless the EU 27 agreed to diagonal cumulation (as is currently granted to eg Norway, Switzerland and Turkey). The mutual agreement to diagonal cumulation seems uncontroversial, since it simply replaces what currently applies and benefits GSP countries, but it will still have to be negotiated.

Table 1: EBA-UK Trade growth and EBA preference utilisation 2010-2015

	total imports By UK From EBA States 000€	index of total UK imports from EBA	MFN zero share of total trade	EBA zero tariff share of total trade	EBA zero tariff share of total excl trade attracting MFN zero tariffs	EBA zero tariff Share of GSP eligible trade
	(1)	(2)	(3)	(4)	(5)	(6)
2010	2029353	100.0	0.11	0.62	0.70	0.83
2011	3182859	156.8	0.29	0.59	0.83	0.92
2012	4169109	205.4	0.36	0.58	0.91	0.97
2013	5215907	257.0	0.44	0.49	0.88	0.94
2014	5317025	262.0	0.40	0.55	0.93	0.98
2015	5548010	273.4	0.25	0.72	0.96	0.99

5. Standard GSP

5.1. The standard GSP is very different from EBA. It has restricted sectoral coverage and preferences can be removed if exports of a given product are judged to be competitive on EU markets. Further, some preferences are limited to a fixed quota. Above all, the range products on which preferences are granted is quite restricted. These restrictions act to reduce the scope and the attractiveness of the standard GSP scheme. For these reasons the analyses in Table 2 have to take account of trade that benefits from reduced but not zero tariffs and which are subject to tariff quotas (ie tariff reductions that are limited to a fixed quantity of EU imports from the beneficiary states).

Table 2: Preference Utilisation Rates and trade growth in UK imports from standard GSP countries

	GSP zero as share of total trade	GSP zero as share of Total less MFN zero	all GSP as share of total trade less MFN zero	All GSP categories as share of all GSP eligible trade	Index of total UK imports from GSP countries
	(1)	(2)	(3)	(4)	(5)
2010	0.17	0.25	0.60	0.72	100.0
2011	0.15	0.27	0.62	0.72	125.1
2012	0.13	0,28	0.62	0.72	155.4
2013	0.14	0.30	0.66	0.76	147.5
2014	0.12	0.25	0.61	0.78	146.0
2015	0.25	0.24	0.60	0.77	168.2

5.2. The first thing to note about Table 2 is that because the preferences are conditioned in various ways, we need to focus on a wider range of utilisation ratios compared with the EBA relationship. This represents the range of preference instruments (zero tariffs, reduced but positive tariffs, sectoral restrictions, tariff quotas) in use under Standard GSP. The share of GSP zero tariff trade varies from 12% to almost 25% (column 1). Removing the MFN zero trade from the picture stabilises and increases the utilisation rate but it remains quite low (column 2). It is not until we combine trade entering under all the different preference options that the level increases to around 60 % (column 3) and compared to the total GSP eligible trade (column 4) that the ratio rises above 70%. Nor is the growth in trade (column 5) comparable with the dynamism of trade expansion from the EBA group (a 2015 peak index of 168 compared with 273 for the EBA countries).

6. GSP+

6.1. Table 3 summarises the preference utilisation and trade growth story for the GSP+ nations. Given their privileges fall between those of the Standard GSP and the EBA countries, one might expect their utilisation and trade story also to be in the middle. But that is not the case. Trade growth lags well behind the EBA and Standard GSP countries (column 5) and utilisation performance is quite bumpy. The GSP+ countries are by definition vulnerable countries, and their trade performance will be affected by exogenous factors at home and abroad. Inevitably there is a limit to what Trade Policy can achieve in their circumstances.

Table 3. Preference Utilisation and trade growth in UK imports from GSP+ Countries 2010-15

	GSP zero total trade	GSP zero as share of less MFN zero	all GSP as share of total trade	All GSP as share of All GSP eligible trade	Index of trade growth to UK 2010-2015
	(1)	(2)	(3)	(4)	(5)
2010	0.21	0.30	0.75	0.78	100.0
2011	0.06	0.11	0.71	0.74	139.7
2012	0.09	0.11	0.72	0.74	91.9
2013	0.09	0.11	0.63	0.76	90.4
2014	0.44	0.52	0.72	0.75	106.6
2015	0.50	0.60	0.73	0.75	119.8

7. Further research and Policy implications

7.1. Looked at through a trade policy optic the low trade-growth performance in the GSP + relationship with the EU compares poorly with the EBA and to a lesser degree with the Standard GSP states. The EBA also manage very high utilisation rates especially in comparison with eligibility criteria. The reform to the RoO regime is common to all GSP beneficiaries and it is clear that that reform did not by itself allow the standard GSP countries to make significantly increased utilisation of GSP instruments. That does not preclude the role of further relaxation of RoO especially in combination with cumulation rules. It has to be noted however that diagonal cumulation across the EU and the UK for EBA/GSP preferences is not a given. Especially if the UK was unilaterally to offer wider cumulation including third countries outside the current EU preferential trade network (eg as in AGOA), There is still scope to relax origin requirements through allowing more foreign content, by raising the de minimis limits above which origin certification is required. But the very complex array of GSP instruments that confront traders and perhaps a degree of perceived arbitrariness about their application may discourage them from making commitments especially in a world of regional and global value chains where predictability is at a premium.

7.2. Recent work from the European University Institute (Hoekman and Inama, 2017) notes that there has been an element of convergence in US and EU RoO instruments and practice in preferential agreements (notably in chemicals) which offer an opening for further research on measuring convergence in preferential RoO practice. They also recommend that harmonisation on a RoO based on simple rules of transformation has the potential to improve opportunities for facilitating developing country engagement with regional value chains.

7.3. These potential opportunities may offer the UK an opening to encourage trade led economic development by exploring, perhaps in cooperation with the EU and the US and in the WTO some harmonised approaches to transformation based RoO and Cumulation. Even if such a cooperative approach fails, in time a new British GSP scheme that takes a much simplified approach based on transformation based RoO, and more broadly based cumulation rules. On the GSP more widely such a simplified approach might also focus on zero preferential tariffs with wider product eligibility and fewer sectoral exclusions across the all GSP beneficiaries. The political economy issues such an approach would raise, both in the UK, with EBA beneficiaries as a result of preference erosion, and with the EU as a result of divergence in approaches with the UK, may be a concern. Nonetheless, the experience of the EBA in the British market suggests that simplifying market access schemes and paying attention to customs procedures such as RoO can facilitate rapid trade growth between developing and developed counties.

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Chapter 4
Trade Diversion

L Alan Winters and Nicolo Tamberi

1. Introduction

1.1. The UK's relations with the ACP countries are currently governed by the Economic Partnership Agreements (EPAs) that the EU has negotiated (and variously signed, ratified or implemented) with regional blocs of ACP countries. The institutional issues posed by these EPAs are discussed in Chapter 1 and the policy question or the UK government is with what to replace them. A key feature of the EPAs is that in return for preferential access to the EU market, the EU requires the ACP partners eventually to eliminate their tariffs on a substantial share of their imports from the EU.[21] Among the questions that arise, therefore, is whether the UK should continue this practice. This appendix considers one aspect of this question – whether by insisting on tariff-free access itself, the UK would be causing ACP partners to suffer trade diversion, which will impose economic costs on them. The Chapter discusses the phenomenon briefly in theory, considers whether conditions are such that trade diversion might arise and then presents the evidence that other reciprocal trade agreements between developed and developing countries have generated trade diversion. The conclusion is that there is some danger that UK policy could impose these costs on developing partners.

1.2. Although increased international trade is very widely viewed as an essential part of the policy cocktail for higher economic growth and incomes, not all trade is good trade. Jacob Viner (1950) showed that free trade agreements (FTAs) have at least two main trade effects which impact on the wellbeing of nations in opposite directions. The first, trade creation, occurs when the increase in imports induced by the reduction of tariffs on a specific exporter displaces (more expensive) local production and is welfare increasing in aggregate. The second is trade diversion which occurs when the source of imports is switched from a source that has to pay the tariff to the FTA partner which no longer pays the tariff. This is welfare worsening because although consumers benefit from the lower price they pay for the good concerned, the government has foregone tariff revenue in the process. This Appendix explains the problem in more detail, shows why it is something that the British authorities should be aware of in deciding whether they wish to insist that developing partners offer tariff reduction on imports from UK in return for exemption from tariffs (preferential access) on their exports to the UK, and, most importantly, surveys the evidence on whether North-South FTAs do actually result in trade diversion.

2. Trade Creation and Trade Diversion

2.1. As outlined by Jacob Viner (1950), the effect of a free trade agreement (FTA) on trade between two parties is at least twofold. The first effect – trade creation – has a positive impact on the economic welfare of the importing party. Trade creation occurs in a product when the increase in imports induced by the abolition of tariffs on the partner exporter displaces local production. This occurs when local costs exceed those in the partner country (plus any necessary trading costs) and local producers were able to supply the market only because they were protected by the tariff. After the FTA comes into operation, the price of the product falls to the level charged by the exporting country and consumers switch to buying from that source. The resources released by no longer having to produce

[21] The requirement is imposed on all ACP partners, although those which are least developed countries have access to the EU market via the Everything But Arms scheme anyway.

the product by inefficient local means are assumed to transfer to a product in which the local economy is efficient; they produce more value in that occupation and so the economy is now able to support a higher level of consumption overall.[22] This is essentially the classical case for the gains from trade – it allows resources to be used more efficiently overall by allowing them to specialise in the areas in which the economy has comparative advantage.

2.2. The FTA will also produce a second effect, however: trade diversion, which has a negative impact on welfare. This adverse effect arises because the importing country is led to shift its consumption away from the most efficient supplier of imports to a less efficient one, the latter being a member of the FTA and thus benefitting from the tariff removal.

2.3. To illustrate trade diversion, consider the simplistic example in **Figure 1**. Assume country *A* imports a perfectly homogeneous commodity from country *B,* its prospective FTA partner, and from *C*, the rest of the world. It levies a tariff of *t* on such imports. Initially, because *C* is the more efficient producer, consumers in *A* import everything from *C* since $P_C+t < P_B+t$. Country *A* benefits from the consumption of *Q* units of the good and collects tariff revenue of *(b+c)*, with consumers paying price P_C+t, of which P_C goes to the exporters and *t* goes to the government. Now assume that *A* and *B* sign a FTA, resulting in the removal of the tariff on *A*'s imports from *B*. Now *B* can offer a lower price than *C*, which still faces the tariff, ($P_B < P_C+t$) and *A* shifts all its imports from *C* to *B*. Assuming that the quantity of imports does not change, consumers in *A* now pay less and hence save area b but the government loses its tariff revenue *(b+c)*, so there is a net loss to the country of *c*. If consumers were to increase their consumption as the price they faced fell, they would gain even more from the trade diversion (i.e. the extra consumer surplus from consuming more would offset the net loss of area *c*), but it is generally considered unlikely that the net effect of diversion would be positive.

2.4. The extent of trade diversion – defined as the loss of national welfare resulting from the induced re-orientation of trade – depends on two factors:

- The amount of trade vulnerable to diversion (*Q* in **Figure 1**),
  and
- The difference between the prices of the more efficient (non-preferred) exporter and the preferred exporter. If this is small, area *c* is correspondingly small.

The probability of trade diversion, on the other hand, depends on two other factors:

- The extent to which the preferred exporter can plausibly displace exports from other sources – i.e. how likely is it that **Figure 1** with two or more competing suppliers actually pertains,
  and
- The height of the tariff, which partly determines the chances that imports actually switch sources. If the tariff is low it is more likely in Figure 1 that $P_C+t < P_B$, i.e. that *C* remains the more competitive source even if it continues to face the tariff. [Imagine that the tariff were only one millimetre in Figure 1; P_C+t would be one millimetre above P_C and so still below P_B.]

[22] The implicit assumption in all this is that the local market functions perfectly so that there are no external benefits to maintaining local production of the good concerned and that resources released can be re-employed in other sectors reasonably easily. These conditions may not be satisfied but it is incumbent upon those who wish to appeal to such market failures to reject liberalisation to specify why maintaining tariffs is the best way to address them.

To place these four factors in context, **Table 1** reports trade shares and average tariffs for each of the EPAs that the EU has signed with ACP country partners.

Figure 1: Trade Diversion is costly for the Importer

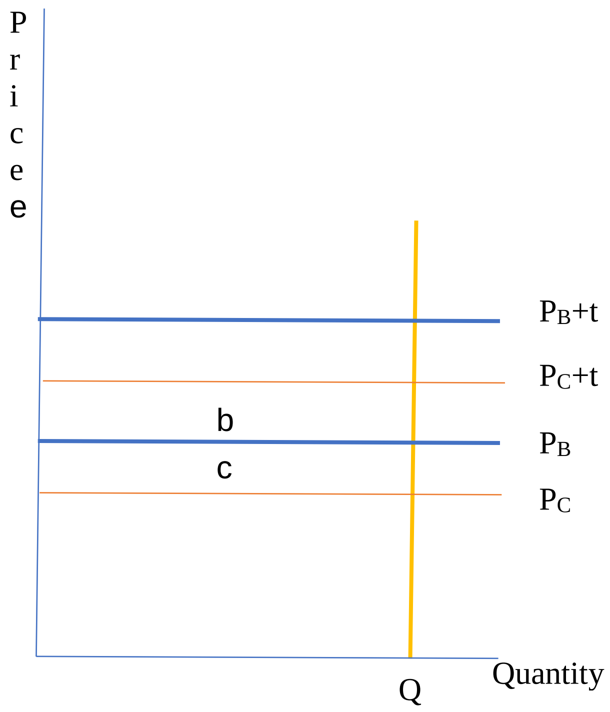

Table 1: UK, EU and other OECD shares of imports into EPA countries, 2014-16

EPA	Shares of goods imports 2014-16 %			Av. MFN Tariff % 2014-15
	UK	EU27	Rest of OECD	
EU-West Africa	6.4	60.5	33.1	11.9
EU-Central Africa	3.9	68.4	27.7	16.1
EU-Eastern and Southern Africa	7.5	65.0	27.5	11.3
EU-East African Community	10.1	43.9	46.1	12.7
EU-South African Development Community	7.9	59.7	32.5	8.2
EU-Caribbean	2.3	16.1	81.6	12.3
EU-Pacific	0.3	12.0	87.6	N/A

Sources: TradeMaps and World Development Indicators; N/A = not available. Data collected from the developed partner export statistics.
Note: Tariffs refer to 'Tariff rate, most favoured nation, simple mean, all products' from World Development Indicators. The reported figures are simple averages over countries within each group.
The data refer to all ACP members of each group, not just those for whom offering reciprocal tariff-free access might be the necessary condition for access to the EU.

2.5. **Table 1** implicitly assumes three suppliers for the sort of goods that the UK is selling (will sell) to the ACP countries: the UK itself, the rest of the EU (labelled EU27) and the rest of the OECD on its pre-2010 definition, which we take as a reasonable approximation to other developed countries. The sum of the three is taken to represent the total market for goods from developed countries, which are assumed to be qualitatively different from those available from elsewhere and reports the three suppliers' shares. (The assumption of qualitative difference from other trade is clearly not literally true, but it is probably close enough for our illustrative purposes.) The Annex to this Appendix reports these data country by country, ordered by size of the UK share. In no case is this very large.

2.6. For the African EPAs – the first five in the table – the EU is currently the largest supplier, very dominantly so in West Africa, Central Africa, Eastern and Southern Africa and SADC. This suggests that as tariff-free access is gradually introduced for the EU, there is not a massive amount of similar trade that is open to trade diversion. That is, if the EU insists on the ACP Partner eliminating its tariffs on EU exports, it is not too far from inducing an almost complete liberalisation of their markets in the goods concerned, and this is in most circumstances likely to be welfare enhancing. Even in the East African Community the EU is the majority supplier.

2.7. Now suppose that, post-Brexit, the UK insisted on tariff-free access while the EU and other OECD did not. The UK is a small share of the total market – there is lots of potential for trade diversion. Moreover, if we look at the tariff rates, the preferential margins would be quite large, suggesting quite a high probability of diversion occurring. The key assumption here is that the EU does not also have tariff-free access: if, on the other hand, it does, then the UK doing so too maintains something like the status quo and is not likely to be so damaging.

2.8. This is not to say, however, that emulating the EU is necessarily the best policy. If the EU had tariff-free access and the UK did not, the extra amount of diversion seems likely to be relatively small (based on the small UK shares of these markets). The UK might lose some exports as a result of not replicating the EU's tariff-free access, but as explained in Chang and Winters (2001) and several more technical papers, this is not necessarily a serious economic cost. Thus the trade-off from a development perspective is possible harm to the ACP countries from trade diversion if for some reason the UK and EU faced different regimes in those countries vs. a possible small cost to the UK.

3. Measuring Trade Diversion

3.1. Much of the literature on trade agreements comprises model simulations. These are attractive in the way in which they produce very clean and clear results – often forecasting large returns to economic integration. However, it is important to remember that they are ex ante studies, essentially theory with numbers, rather than an exploration of what actually happened. They may be based on real data so far as the definition of a baseline is concerned, but their predictions of the effects of trade agreements then depend entirely on the specification of the model (i.e. the theory used) and on parameters that are usually not estimated from real data – or at least not from data pertaining to the precise case under investigation. Model simulations are a necessary tool for exploring issues conceptually and for estimating the effects of future or prospective policy. They do not, however, collate direct evidence on the 'real world'.

3.2. Evidence requires ex post studies: studies of actual trade agreements (from the past, of course) and their effects. These also depend on a series of assumptions – specifically how one sorts out the effects of the trade agreement being studied from all the other events occurring in the world at the same time: we have one actual outcome and a host of potential causes and need to rely on theorising and possibly additional empirical work to separate them out. Fundamentally, ex post measures of trade diversion depend on the construction of a counterfactual: we observe the level of trade in the presence of the FTA and have to construct an estimate of what it would have been in its absence. Winters (1987) discusses this issue in the context of UK-EU trade – UK accession to the EEC. The problem is that the counterfactual cannot be observed and hence verified; our confidence in it depends on the quality of the analysis from which it derives and it will always be surrounded by a degree of uncertainty – Winters (1997). There are essentially two approaches to the counterfactual.

3.3. First, one can examine the trade flows of interest before and after the imposition of the FTA. If there are identifiable changes in trade behaviour around the time of the FTA (allowing for both leads and lags in the timing of the effects – there is evidence that both exist) one attributes them to the FTA. The critical assumption is that the FTA is the biggest, if not the only, shock over the period examined. Often the technology used is merely to graph trade flows or look at simple 'before' and 'after' trade shares. It is possible to be much more sophisticated, however, as, for example, in Winters' (1984) exploration of the effect of the EEC on UK imports.

3.4. The second approach is to look at the trade of other countries and try to infer the likely pattern in the flows of interest from them. This can be done from a single year's data: for example if the USA's share of an ACP country's imports is x%, but its share of a very similar non-ACP country is y% and x < y, one might argue that this is evidence of trade diversion. However, this depends heavily of the two countries actually being similar and so the exercise is usually done by comparing 'before' and 'after' levels of these two shares and asking whether the USA's share fell by more in the ACP case. This approach has come to be known as a difference-in-difference approach.

3.5. A more data intensive approach is to use trade between many countries to define the counterfactual, so that in some sense the counterfactual is 'average trade' behaviour. This approach requires that many obvious determinants of trade be allowed for in explaining trade – e.g. the size and proximity of the two partners – so that the only difference between our target country and the average is that it has an EPA with Europe. This approach is based in the, now ubiquitous, gravity model. As with the simple model, it can be used merely for one period or with a panel of data with a view to identifying unusual changes in the trade flows of interest. Since this is now the prevailing approach, we describe it in a little more detail.

3.6. The gravity model was introduced to the trade world by Tinbergen (1962)23. The model, which has a similar form to Newton's law of universal gravitation, describes bilateral trade flows in terms of the economic masses of the partner countries and the 'distance' between them interpreted broadly to include geographical, cultural, historical and political distance. This allows the model "to determine the normal or standard pattern of international trade that would prevail in the absence of trade impediments" (Tinbergen, 1962)24. By considering things such as the distance between two trading partners, their relative GDPs, their historical relation (e.g., colonial relations), cultural affinity (often proxied by the share of common language) it is possible to determine the 'natural' level of trade between two countries. This is a very solid counterfactual, provided that is confident that the flows for which the counterfactual is to be constructed would exhibit 'average' conditional behaviour. This in turn reduces to the question of whether the gravity model plausibly includes all the variables that one would expect to influence trade systematically.

4. Evidence

4.1. Any FTA between the UK and developing countries falls into the class of North-South FTAs, which are arguably different from those between developed countries (North-North) or those exclusively between developing countries (South-South). Schiff and Winters (2003) discuss in some detail why the trade effects might be different between these different classes of FTA and prominent among them is intra-industry trade (IIT). IIT refers to countries trading the same commodity in both directions. It is partly a result of the inevitable aggregation involved in classifying goods for statistical purposes, but even at the finest levels of disaggregation it is quite detectable and derives variously from the fragmentation of production, economies of scale and consumers' love of variety. Broadly speaking, the

[23] The first use was in 1885, for migration – see, Baier, Kerr and Yotov (2017).
[24] The initial model presented by Tinbergen faced various revisions improvement. For a survey on the evolution of the model see De Benedictis and Taglioni (2011), Anderson (2011) and Baier, Kerr and Yotov (2017).

more similar are two countries and the richer they are, the greater the extent of IIT.[25] For this reason, the vast literature on N-N FTAs is not likely to be very informative for our question and so this Appendix is restricted to discussing the evidence derived from studies of North-South reciprocal trade agreements, either FTAs or in other forms.

4.2. This restriction, however, immediately brings a practical difficulty: there are not many FTAs of this type to look at, and for many of them the implementation of the reduction in the Southern partners' tariffs has been sufficiently recent (and/or patchy) that there are few observations to study. The lack of case studies narrows our analysis to the North America Free Trade Agreement (NAFTA) and the FTAs between the EU and Mediterranean (MED) and a few Latin American countries (LAC).

4.3. A further practical issue to consider is that for some FTAs there are clear anticipatory effects (see, for example, Winters, 1984) and that as well as the time lag that can occur between an FTA entering into force and its actual implementation, there may be lags in its effects once implemented. Magee, 2008, argues that FTAs take up to 11 years after entering into force to have their full effect on trade flows. These caveats should induce a sense of caution in the reader about how definitive the results of the studies survey can actually be.

5. The North America Free Trade Agreement (NAFTA)

5.1. The NAFTA entered into force in 1994 and it has been extensively studied by trade economists, as it represents the largest free trade agreement outside the EU and it is the first rigorously reciprocal FTA between developed and developing countries (Romalis, 2006). This is a natural case to study and enough time passed since its entering into force to render its effects fully visible.

5.2. Magee (2008), using a panel data set coming from Statistics Canada's World Trade Analyser (yearly data on 133 countries over the period 1980-1998) controlling for country pair, importer-year and exporter-year fixed effects, evaluates the effects of various regional agreement, with a particular focus on trade creation and trade diversion. Overall, the research reveals little trade diversion, but for NAFTA it finds a statistically significant trade diversion effect in two different model specifications[26]. However, in arguably the most reliable estimate, controlling for country pair fixed effects and removing the endogeneity bias in the creation of FTAs, no trade diversion is observed. One possible shortcoming of the Magee study with respect to NAFTA is that the sample period covers only four years after it entered into force while arguing that in general it can take up to eleven years for the full effects of an FTA to be observed. Disentangling the effects of RTAs country by country, NAFTA is estimated to have increased Mexico's intra-block trade by $24 billion and extra-block trade by $8 billion. This could suggest that no trade diversion occurred, but in fact, given that Mexico undertook a major liberalisation and depreciation relative to the rest of the world around this time, it is better probably seen as saying that external trade creation outweighed trade diversion proper.

5.3. Romalis (2006) measures the effects of NAFTA using detailed trade and tariff data to calculate the impact of the agreement on the member nations' welfare. Romalis does not make use of the gravity model, but instead relies on a description of demand and supply sides of the economy, and estimates of demand elasticities and transport costs. The main results highlight small welfare gains: the main tariff reductions occurred in those sectors where North American producers were not the low-cost producers and the tariff acted as a protection against more efficient foreign producers. The tariff removal boosted trade in the inefficient sectors and caused trade diversion. This interpretation of results is then backed up by an econometric analysis on exports of non-NAFTA countries to NAFTA

[25] Indeed the phenomenon of intra-industry trade was first identified through the work of scholars of European integration on actual trade data – Balassa (1966). The mass of theory to explain it only followed later.

[26] The net effect of NAFTA, however, taken as the difference between trade creation and trade diversion, is strongly positive, with an intra-block effect of +82% and an extra-block one of about -2.8%.

countries and the EU. Romalis considers North American countries (considered as a group) and the EU as comparable economies, implying that their imports from another country j should be similar, where j is non-member of NAFTA and EU. To test the presence of trade diversion, a regression of the logarithm of the ratio of North America's and EU's imports from the control countries j on preferential and MFN tariffs (i.e., one variable for each NAFTA country pair preferential tariff, one for each North American country's MFN tariff and the EU MFN tariff). The sum of the coefficients on the preferential tariff is then the measure of trade diversion. The estimates suggest that a 1% reduction in the intra-North America tariff causes a 2.8-3.9% decline in North American imports from j relative to the EU (considering a larger set of j countries, the effect is estimated to be between 1.3% and 2.2%). This original approach finds evidence of trade diversion in North America as a consequence of the FTA. However, the sample period ends in 2000 and so does not include many post-agreement years, implying that some of the FTA effects may not yet have revealed themselves. Further, the trade diversion effect is computed for North America as a whole rather than Mexico per se.

5.4. Carrere (2006) applies the Soloaga and Winters (2001) dummy variables approach to the gravity model specification derived by Baier and Bergstrand (2002) to measure trade creation and diversion in a panel of 130 countries over the period 1962-1996. The Soloaga and Winters (2001) methodology implies the use of three dummy variables to capture the FTA effect: one for the intra-FTA region, one for the FTA region's exports to all countries and one for the FTA region's imports from all countries. The panel data estimates show presence of trade diversion for NAFTA, which is estimated to drive down North America imports from the ROW by 39%[27], while no trade creation is detected. Carrere then shows the evolution of FTAs' effect in time plotting the estimated coefficients for the regional agreement dummies multiplied by time dummies. Results for NAFTA shows a significant increase in intra-NAFTA trade after the beginning of negotiations and then a further increase after the signature of the pact, while imports from the ROW declined. At the same time, exports to the ROW increased after falling for few years after the beginning of negotiations. This is most probably due to the concomitant non-discriminatory liberalisations by non-partners started at about the same time. Note, however, that the sample in this case covered only two years of NAFTA.

5.5. Matinez-Zarzoso et al. (2009), also following Soloaga and Winters (2001), studies the impact of different trade agreements employing OLS, panel data and dynamic estimation techniques and controlling for multilateral trade resistances as in Baier and Bergstrand (2007). The sample covers the period 1980-1999 and includes 47 countries that are members of the FTAs considered: EU, CACM, CARICOM, NAFTA and EUROMED [28]. Of the N-S agreements, the paper considers the NAFTA and the EU-MED. However, because the sample period covered is 1980-1999, results on the EU-MED relations will not be particularly interesting since many FTAs were not yet signed at the time. The results from the panel estimates show the presence of import diversion for NAFTA, suggesting that imports from extra-block countries diminished by 12%-18%, while intra-block trade increased by 51%-61% depending on the model specification. The dynamic estimates on the other hand show mixed evidence, and do not offer clear evidence of trade diversion for NAFTA. Given that the sample ends in 1999 and that the lagged dependent variables absorb much of the available variation in the variables, however, it is not clear how much weight to put on this latter failure to find evidence of diversion. Moreover, as with Romalis, Matinez-Zarzoso et al. consider NAFTA only as a single bloc.

6. *Evidence from EU FTAs with developing countries*

6.1. The European Union historically maintained non-reciprocal agreements with developing countries, giving them full access to the European market without having reciprocal tariff-free access granted to its exports. Reciprocal policy dates back to the late 1970's when, following the war between Israel and

[27] The estimated coefficient is -0.5, and the effect on trade is computed as $e^{-0.5} - 1 = -0.3936$.

[28] So far as we can ascertain, no other ("ordinary" i.e. non-FTA) countries were included, which may challenge the representativeness of the sample.

its Arab neighbours and the oil embargo, the EC signed Cooperation Agreements with seven Mediterranean countries (Algeria, Morocco and Tunisia in 1976; Egypt, Jordan, Lebanon and Syria in 1977). The Cooperation Agreement ruled the EU-MED relations until the 1990's, when the end of the East-West conflicts and the growing interest in regionalism pushed countries to conform with the WTO rules on Most Favoured Nation (MFN) treatment. This process converged in the 1995 Barcelona Process aimed to create a free trade area by 2010 (Panagaryia, 2002)[29]. Further agreements of the EU with developing countries include the EU-Mexico FTA, which entered into force in 2000, and the EU-Chile of 2003, but we have not been able to identify any ex post quantitative evaluations of their effects. In addition, we consider the EU-Turkey custom union which also requires reciprocal tariff-free access for EU exports.

7. The EU-MED Agreements

7.1. Although the EU-MED agreements stated the aim of eliminating trade barriers to achieve free trade by 2010, their implementation has, to date, been weak, with tariff removal proceeding only slowly. Due to the pre-existing non-reciprocal agreements, the EU's imports from MED countries are already fully liberalised, so the application of tariff elimination in the Barcelona Process refers to the MED countries' imports from EU.

7.2. The CASE and CEPS joint report on the EU-MED partnership – De Wulf et al. (2009) – reports data on MED5 countries' MFN tariffs and tariffs levied on EU goods and services (MED5 countries are Egypt, Israel, Jordan, Morocco and Tunisia). These are reported in Table 2. Except for Morocco and Tunisia, the differences between the MFN and the EU tariffs (row 4) are minimal. Because of this poor implementation, it is rather difficult to measure the impact of the trade agreement on the MED5's imports and both trade creation and trade diversion are likely to be small.

Table 2: Liberalisation of tariff schedule of MED5 countries

Country (year of implementation of Association Agreement)	Egypt (2004)	Israel (2000)		Jordan (2002)	Morocco (2000)		Tunisia (1998)
Year	2005	2004	2008	2005	2005	2008	2005
Average MFN	19.96	5.83	5.61	14.28	29.52	24.08	31.7
Average EU	19.41	1.36	1.42	13.76	20.08	11.97	18.01
Average Preferential Margin for EU	0.55	4.47	4.19	0.52	9.44	12.11	13.69
share of Lines with Preference margin	27.15%	41.10%	38.33%	6.63%	87.59%	72.58%	63.75%
Share of Duty Free MFN Lines	5.50%	54.67%	57.12%	38.28%	0.13%	16.6%	15.00%
Share of Duty Free EU Lines	6.23%	95.42%	94.98%	38.28%	40.32%	51.00%	39.19%

Source: De Wulf et al. (2009)

7.3. Following Ruiz and Vilarrubia (1997), De Wulf et al apply a gravity model analysis to the top 100 exporters data for the period 1970-2008. The analysis is carried out controlling for the standard country pair characteristics such as distance, GDP, common border, etc., and importer-time and exporter-time fixed effects. A second specification used to check the robustness of results employs country-pair dummies to reduce omitted variable bias. The estimations do not find any evidence of trade diversion with respect to the MED5's imports. However, unlike most gravity estimations in the

[29] The participants to the Barcelona Conference of 1995 are the 15 EU Member States, Algeria, Cyprus, Egypt, Israel, Jordan, Lebanon, Malta, Morocco, the Palestinian Authority, Syria, Tunisia and Turkey (De Wulf et al.).

literature, the evidence of trade creation is also slight which might suggest that the actual degree of liberalisation is too small to have detectable effects. The authors also looked at the growth rates of trade between MED5 countries, the EU and the rest of the world in the period 1998-2008; this, too, suggested that there was little evidence of trade diversion. Indeed, the MED5 countries' trade grew faster with the ROW than with the EU, suggesting that the Association Agreements did not adversely affect MED countries' relation with non-EU members.

7.4. Peridy (2005) looks at the trade effects of the EU-MED agreement and finds a positive effect on trade of about 20-27% depending on the model specification. However, the effect computed by Peridy is the gross trade creation, since it does not introduce a measure for trade diversion therefore rendering impossible the computation of the net effect.

7.5. As noted above, Martinez-Zarzoso et al. (2009) also examine the EU-MED agreements, including relations with 12 MED countries including Malta and Turkey. However, their dataset is too short to allow them to capture much of the effect of the 1995 Barcelona Process. The panel data estimates find that the agreements increased intra-block trade by 20-23%. However, when country-time dummies are added the estimated coefficient is not different from zero and no intra-block trade creation is detected. Import diversion is estimated to be about 13%, but again adding country-time dummies eliminates the measurable effect.

7.6. Turning to the EU-Turkey Customs Union, Magee (2016) offers a similarly detailed analysis to that referred to above. He works with tariff-line level data regressing trade flows on the actual tariff that Turkey levies on the EU and the margin that this grants relative to the MFN tariff. As with the general exercise above, Magee identifies both trade creation and trade diversion; the former is about three times larger, but the latter is not insignificant: depending on the specification, around 5% of Turkey's total imports are diverted by the customs union.

7.7. Other studies of the EU-Turkey Customs Union find different results. Bilici et al. (2008) demonstrate that the trade bias towards the EU caused by the 1996 customs union was only temporary, with Turkey's imports from the EU initially rising and subsequently falling showing no long-term change in Turkey's trade pattern. Nowak-Lehmann et al. (2007) perform a gravity model sectoral analysis and find the customs union effects to be small on Turkey's export of plastic and rubber, textile and clothing, and machinery. Similarly, Antonucci and Manzocchi (2006), using the gravity model on bilateral trade flows, find no evidence of any customs union or 1963 EU-Turkey Association Agreement effects on merchandise trade flows. Adam and Moutos's (2008) gravity modelling finds no diversionary effects – although it did not really look for any! They estimate that that following the custom union, the EU(15)'s exports to Turkey increased by 65% in the period 1996-2004.

7.8. The differences between Magee's and the other studies' results illustrates the role of the counterfactual. Magee's counterfactual is based on comparisons across products taking explicit account of tariff levels. The other studies rely on comparisons across time and dummy variables to capture the Customs Union. The difference is very significant. The EU-Turkey Customs Union obliged Turkey to lower its tariffs against third countries substantially. Thus over time, third countries recorded considerable increases in exports – so-called external trade creation – which would have the effect of masking any trade diversion if tariffs were not taken explicitly into account.

8. Other North-South Agreements

8.1. Disdier et al. (2015) focus on North-South agreements and the impact of these on the South-South trade, concentrating the analysis on non-tariff measures (NTMs). Because northern countries typically have more restrictive technical regulations, when a N-S agreement is signed the developing country has to adopt the developed country's measures if it wants to export to it. The process requires a reorganization of the southern country production structure, which typically incurs significant additional costs. The higher standards in the North will command higher prices than will exports to the south, so that once the Southern country has undertaken the investment, it will be more likely to export to the north than the south, creating export diversion. Moreover, if the developing partner also adopts the northern standards domestically, this may have positive externalities on its health and environment. Assuming that it has not mistaken the benefit-cost trade-off, the developing country partner will gain from this investment and export diversion (or it would not have undertaken the investment), but its erstwhile developing country partners will usually lose.

8.2. An ex ante theoretical evaluation of these possibilities is impossible, so empirical evidence is necessary. To address the question, Disdier et al estimate a gravity model using a Poisson estimator to address the zero problem and employing importer-year, exporter-year and country pair fixed effects30. The sample includes 171 countries covering 43 N-S Economic Integration Agreements over the period 1990-2006. Results show a significant effect of N-S agreements on S-S trade, both trade diversion and export diversion. Trade diversion is estimated to reduce S-S trade by 10% – which is to the detriment of the Southern integration partner. Export diversion, on the other hand, affects other southern countries who see the supply of their imports contracting. The effect of export diversion is roughly estimated to be a reduction of 20% of exports to the South market. When the analysis is carried out at product-level, the estimated effects of import diversion and export diversion are confirmed and strengthened.

9. Conclusion

9.1. This Chapter has shown that when developing partners offer (are required to offer) developed partner countries tariff-free access as part of a reciprocal trade agreement trade diversion cannot be ruled out. It is true that in most cases trade creation appears to be larger than trade diversion, but the latter cannot be ruled out and can be of significant size in some cases. Trade diversion imposes costs on the importing developing country – although the prices of imports to consumers may fall, the country as a whole pays more for imports because the whole of the price goes to overseas sellers, rather than some of it accruing to the government what taxes are levied. Diversion may also impose costs on the exporting nations as well – either other developed or possibly other developing countries – but as discussed in Chang and Winters (2001), this is not an inevitable outcome. This Chapter has also discussed export diversion in response to changes in standards that may follow an economic integration agreement, which also imposes costs on other developing countries.

9.2. The evidence available on trade diversion in North-South trade agreements is very limited and so no precise estimates of the diversionary effects of specific trade agreements are feasible. However, as we argue in the text, it is plausible to suppose that if the UK seeks preferential access to an ACP country's market in which the EU is the major source of imports but in which the EU does not have tariff-free access, there is likely to be material diversion. If, on the other hand, the EU has tariff-free access and the UK does not, there is likely to be diversion away from the UK towards the EU, which will damage the developing partner quite independently of whether it imposes costs on the UK. The appropriate policy decision is between (a) that the UK try to bench-marking its policy in this respect on EU policy – i.e. "we do if they do, but not otherwise" – and (b) the notion that the UK's imposing tariff-free access on its partners has a capacity to be harmful to them while offering only relatively small benefits (some of which might accrue to the UK itself rather than developing world).

[30] For a detailed exposition of the zero problem and its solution, see Santos Silva and Tenreyro (2006) and Santos Silva and Tenreyro (2011). Baier et al (2017) discuss the other technicalities.

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Annex to Chapter 4

Table 1: Shares in Imports from developed countries, 2014-16, %, by ACP country

	shares in imports from developed countries %		
	UK	EU	Rest of OECD
EU-West Africa			
Sierra Leone	13.9	51.6	34.5
Guinea-Bissau	13.3	81.4	5.3
Gambia	13.0	59.2	27.8
Ghana	11.0	54.4	34.6
Nigeria	9.0	55.7	35.3
Senegal	7.0	75.6	17.4
Benin	4.1	55.7	40.2
Côte d'Ivoire	4.0	76.5	19.5
Togo	3.3	80.9	15.9
Guinea	3.1	78.3	18.7
Cabo Verde	3.0	93.2	3.8
Mali	2.3	85.0	12.8
Mauritania	1.7	77.1	21.3
Niger	1.6	77.6	20.8
Burkina Faso	1.4	80.5	18.1
Liberia	0.4	16.7	82.8
EU-Central Africa			
Congo	5.9	54.4	39.7
Equatorial Guinea	4.8	61.6	33.6
Gabon	3.4	74.1	22.5
Cameroon	2.8	76.6	20.6
Congo, Democratic Republic o	2.7	76.8	20.4
Central African Republic	2.2	73.6	24.2
Chad	1.5	78.8	19.7
Sao Tome and Principe	0.4	95.1	4.5
EU-Eastern and Southern Africa			
Sudan	n/a	n/a	n/a
Zimbabwe	14.6	50.5	34.9
Zambia	12.0	52.3	35.7
Seychelles	7.5	68.8	23.7
Malawi	7.4	52.1	40.5
Mauritius	6.1	65.2	28.6
Ethiopia	5.8	44.4	49.7
Eritrea	3.5	67.6	28.9
Djibouti	2.8	54.0	43.2
Madagascar	2.1	82.3	15.6
Comoros	1.3	83.0	15.6
EU-East African Community			
Kenya	11.5	37.3	51.2
Tanzania, United Republic of	9.5	46.0	44.5
Uganda	7.8	56.4	35.8
Burundi	2.8	82.6	14.7
Rwanda	2.6	68.0	29.4

	shares in imports from developed countries %		
	UK	EU	Rest of OECD
EU-South African Development Community			
South Africa	8.3	62.0	29.7
Angola	7.5	54.1	38.4
Namibia	7.1	58.1	34.8
Lesotho	6.7	57.1	36.3
Botswana	5.0	30.9	64.1
Swaziland	4.4	43.4	52.3
Mozambique	2.7	56.9	40.5
EU-Caribbean			
Dominica	8.9	17.7	73.4
Saint Vincent and the Grenadines	8.2	22.1	69.6
Grenada	7.6	12.6	79.7
Guyana	6.4	12.7	80.9
Barbados	6.4	15.8	77.9
Trinidad and Tobago	5.1	13.4	81.4
Saint Kitts and Nevis	4.3	23.8	71.9
Antigua and Barbuda	3.8	36.3	59.8
Saint Lucia	3.7	5.9	90.4
Belize	2.7	20.8	76.6
Jamaica	2.6	10.6	86.8
Suriname	2.0	38.4	59.6
Dominican Republic	1.4	14.6	83.9
Haiti	0.9	13.2	85.9
Bahamas	0.6	18.4	81.0
EU-Pacific			
Papua New Guinea	1.6	6.7	91.7
Fiji	1.2	10.3	88.5
Solomon Islands	1.1	3.6	95.3
Tonga	0.9	9.3	89.8
Palau	0.4	3.2	96.3
Vanuatu	0.4	33.2	66.4
Nauru	0.3	1.0	98.7
Niue	0.3	0.4	99.3
Tuvalu	0.2	1.5	98.2
Samoa	0.1	2.6	97.3
Kiribati	0.1	4.1	95.8
Cook Islands	0.1	12.1	87.8
Micronesia, Federated States of	0.1	1.2	98.7
Marshall Islands	0.0	13.5	86.4

Chapter 5
Public Procurement and Trade Agreements

Bernard Hoekman and Benedikt Dengler (EUI)

1 Introduction

1.1 Public procurement constitutes a large market in all economies. The size of this market varies, depending on the role of government in the economy and the extent to which services are outsourced. Low-income countries have among the highest share of public procurement in their economies, at 14.5 percent of GDP, followed by upper-middle income countries, at 13.6 percent (World Bank, 2017). Most public procurement systems aim to achieve "value for money." The mechanisms to attain that goal involve requiring procuring entities to seek competitive bids for contracts above a minimum value threshold. In the case of small contracts such competition may be limited to collecting a minimum number of bids – so-called "shopping" – e.g., three bids from different suppliers. For larger contracts a call for tender will usually be required, specifying what is demanded, what criteria must be satisfied and specifying the procedures to be followed for putting in a bid, and the timeline that is to be followed in assessing bids and awarding the contract. The latter "competitive bidding" may be open to foreign firms as well as domestic firms, although most procurement rules specify a minimum value threshold below which international competitive bidding need not be pursued if an entity does not desire to.

1.2 In practice procurement tends to be characterized by a strong 'home bias' – most contracts are awarded to national, and often local, companies. Procuring entities may prefer to spend tax revenues at home, in the process generating political support, or they may want to safeguard national supply capacity in important sectors (such as defence equipment) or to achieve social objectives (e.g., to support minorities, small businesses or disadvantaged communities). It will however often be the case that local suppliers may often be more efficient – local sourcing may minimize costs and ensure greater control and accountability for performance.

1.3 Procurement policy may be designed to explicitly favour domestic firms and products and thus acts as a trade barrier.[31] The market access dimension of discriminatory procurement practices is generally the main rationale for negotiating disciplines on government procurement in international trade agreements. In this respect the political economy of market access negotiations on procurement are the same as those for trade agreements more generally. Reciprocity is at the core of efforts to liberalize procurement markets, as the loss of a sheltered home market for domestic firms is offset by an increase in contracts won by trading partners. However, procurement liberalization is more complex than tariff reduction as it involves regulatory regimes—the systems that a government puts in place to allocate contracts and seek to ensure that winning bidders are capable of delivering a product or a project; to reduce the scope for collusion or corruption; and to hold firms and procuring entities accountable for performance.

1.4 The regulatory features of procurement regimes are critical in ensuring that public objectives are pursued in an efficient manner. As in any area of regulation, different countries may pursue different approaches and there is no one-size-fits-all optimal procurement mechanism that is appropriate for all situations and all countries. For complex procurement projects involving long-lived infrastructure projects, new technologies or outsourcing of public services, it may not be clear what the best approach is and there is much to be learned from international experience. Thus, in addition to addressing spill overs generated by *de jure* discrimination and differences in procurement regulation that result in *de facto* discrimination against foreign bidders, the inherent complexity of designing

[31] See OECD (2017) for a discussion how procurement practices can be mapped into typologies of nontariff policies and available sources of information on procurement regimes across countries.

procurement systems to achieve public service objectives efficiently may create incentives for international cooperation.

1.5 What follows briefly discusses the evolution of the inclusion of procurement into trade agreements, the extant literature on the effects of procurement disciplines, and undertakes an analysis of the effect of disciplines in trade agreements in enhancing (safeguarding) market access. The literature, as well as our empirical analysis, suggests weak evidence at best for the market access function of procurement disciplines. There is stronger evidence that the GPA has worked as an effective commitment device, constraining governments from becoming more protectionist in their procurement sourcing decisions following the 2008-09 US/EU financial crisis and the subsequent global recession/period of slow growth. The evidence suggests there is therefore value in including binding procurement disciplines in trade agreements. However, it also suggests that there may be significant payoffs to efforts that centre on improving procurement practices through alternative (complementary) mechanisms of international cooperation. These include knowledge platforms and related initiatives to support learning and dissemination of good practices in this area. Aid for trade allocated to such initiatives – possibly linked to PTAs that include provisions on procurement – could help in establishing the preconditions and support necessary for gradual incorporation of procurement rules in trade agreements.

Public procurement in trade agreements

1.6 The inclusion of government procurement practices in trade agreements is relatively recent. Government procurement was excluded from the original General Agreement on Tariffs and Trade (GATT) in 1947. It was not until the Tokyo Round of multilateral trade negotiations in 1979 that a multilateral government procurement agreement (GPA) was negotiated. This covered just a small subset of GATT contracting parties. Similarly, until the early 1990s, most preferential trade agreements (PTAs) did not cover procurement.

2 The GPA

2.1 The first version of the GATT GPA entered into force in 1981. This extended the basic GATT non-discrimination rules to the purchases of goods by selected government entities. The agreement bound only signatories—at the time 22 countries. The GPA was revised several times since then to expand its coverage. After more than a decade of talks, the third revision of the GPA was adopted in 2012 and entered into force in April 2014. At the time of writing, there are a 19 parties to the agreement, counting the EU-28 as one, i.e., covering 47 WTO members. European countries account for 70 percent of the membership.

2.2 The main discipline imposed by the GPA on covered entities is non-discrimination – both national treatment and MFN (GPA Art. IV). The obligation extends not only to imports but also to subsidiaries of locally established foreign firms. The GPA thus goes beyond the GATT, which does not extend national treatment to foreign affiliates, and the GATS, which does so only if specific commitments to that effect have been made on a sector-by-sector basis. Under the GPA, all foreign affiliates established in a signatory are to be treated the same as national firms. Moreover, signatories may not discriminate against foreign suppliers by applying rules of origin that differ from those they apply in general to MFN-based trade. As discussed below, foreign direct investment (FDI) is an important channel for foreign firms to contest procurement markets, making this feature of the GPA quite important.

2.3 GPA signatories are required to "…conduct covered procurement in a transparent and impartial manner that is consistent with this Agreement, using methods such as open tendering, selective tendering and limited tendering; avoids conflicts of interest and prevents corrupt practices" (Art.

IV:4).[32] The preference for competitive procurement methods is implicit in the agreement, reflected in requirements that notices of intended or planned procurement be published (including information on timeframe, economic and technical requirements, and terms of payment), and in disciplines on treatment of tenders and contract awards.

2.4 Although tax/subsidy instruments generally are likely to be more effective in addressing market failures, such targeted procurement may be an efficient policy tool as long as there is competition between firms in the relevant target group. A tax or subsidy will be less selective, affecting all firms that satisfy the eligibility criteria, including those that are less productive, and thus may be much costlier than procurement targeting. Competitively allocated procurement contracts in contrast will benefit only the most productive (lowest cost) bidder from the population of the group that is the focus of public policy. A weakness of the GPA in this regard is the centrality of market access, as noted above. The procurement process-related rules in the GPA are primarily aimed at supporting the market access goal and not designed to help governments achieve their procurement policy objectives.

2.5 Until relatively recently, the basic presumption in the procurement literature was that the type of arms-length international competitive bidding procedures called for by the GPA would, as a rule of thumb, generate efficient outcomes by awarding contracts to the lowest cost supplier able to meet the technical project requirements. However, especially for more complex projects, efficiency may require procuring entities to engage in negotiations and to interact with potential suppliers. The advantage of such 'competitive dialogue' is that it permits companies to engage with procuring entities, allows the latter to consider alternative solutions and technologies and to determine what would be most appropriate in addressing their specific needs.

2.6 Price-preference policies, local content requirements, offsets and similar discriminatory policies are widely used by governments to achieve equity or industrial policy goals. They are in principle prohibited by the GPA, but exclusions are built in to grandfather domestic content requirements for small businesses – e.g., US federal procurement preferences for small businesses owned by women or socially disadvantaged businesspeople. Art. V GPA gives developing countries the right to adopt or retain price-preference policies and offset requirements on a transitional basis, and delay the implementation of any and all provisions other than MFN for up to 3 years (5 years for a LDC).

2.7 Very few developing countries have joined the GPA in the last 30 years, in part because of a concern regarding the implications for being able to pursue industrial and social policy objectives and in part because of the fact that they have limited export potential in this area. This has led GPA members to pursue procurement disciplines through the negotiation of preferential trade agreements (PTAs) and in the process extend procurement rules to non-GPA members. One reason a developing country may be willing to sign a PTA that includes procurement liberalization is that the PTA offers a quid pro quo in other areas, something that is not possible in the GPA context – as the GPA deals only with procurement.

3 PTAs

3.1 There are 129 PTAs currently in force that include commitments to open access to procurement contracts on a bilateral or regional basis (Shingal, 2017). About half of these are not far-reaching, but many recent vintage PTAs include extensive coverage of procurement. A feature of the procurement-PTA landscape is that it mostly involves GPA members and that there is limited coverage of developing countries. In some cases PTAs between GPA members are used to deepen market access on a discriminatory basis – an example is the Canada-EU CETA. In other cases, e.g., the Trans-Pacific Partnership (TPP), three countries were not GPA members: Brunei, Malaysia, and Vietnam.

[32] Open tendering is any method that allows any supplier to bid (e.g., international competitive bidding). Selective tendering is a method where only suppliers that satisfy specific criteria for participation may bid (usually prequalified suppliers). Limited tendering is non-competitive and usually involves a procuring entity approaching one or more potential suppliers of its choice.

3.2 CETA is noteworthy for the extent to which the sub-federal Canadian procurement market was opened to competition by EU firms. CETA applies to procurement by the Canadian Provinces and Territories, as well as contracts issued by provincial Crown Corporations, utilities, mass transit, municipalities, school boards, and publicly-funded academic, health and social service entities (including corporations or entities owned or controlled by one of the preceding). CETA commitments on opening procurement were unprecedented and exceed those made in other Canadian PTAs.[33] Canada had long resisted opening access to sub-federal level procurement. Its commitments under the GPA are limited to federal level procurement. As a result the EU, which has made commitments on sub-central procurement in the GPA, excluded Canada from eligibility to bid on such contracts in the EU. The overall package negotiated in CETA allowed the Canadian government to move forward where this had not been feasible in the GPA context. This was made possible because of a general understanding that opening provincial and other sub-federal procurement was a key objective for the EU.[34]

3.3 Anderson et al. (2011) classify 139 PTAs into three broad categories: (i) agreements between GPA Parties; (ii) agreements between a GPA Party and a non-GPA Party; and (iii) agreements between non-GPA Parties. Within each category, they then distinguish between: (a) PTAs incorporating government procurement chapters/ related schedules or having some provisions that include the liberalization of procurement markets as an objective; and (b) PTAs that do not include such commitments. They find 87 agreements falling into the first category. They then assess the "depth" of these PTAs using 11 criteria such as whether the agreement requires non-discrimination, has procedural provisions that are analogous to the GPA; calls for domestic review mechanisms; is subject to dispute settlement procedures, and disciplines the use of offsets and local content policies. A similar exercise was undertaken by Ueno (2013), who finds that non-GPA countries accept a level of procurement market access commitments in PTAs that is very similar to those countries have agreed to under the GPA. Ueno (2013) is a very comprehensive discussion of the different approaches taken towards procurement in PTAs, their entity coverage, applicable value thresholds, coverage of services and how they compare/relate to the GPA. We refer readers interested in information on how specific PTA scores on such variables to this excellent paper. What follows focuses instead on summary indicators of the coverage of PTAs in this area and the available evidence on whether PTAs "make a difference" in enhancing market access and changing the behaviour of procuring entities.

3.4 Shingal (2017) comprises a recent comprehensive mapping of the coverage of procurement in PTAs using criteria analogous to those employed in these studies. Of a total of 242 PTAs currently in force that include at least one non-GPA signatory, 127 (52 percent) include language on public procurement (Annex 1, Table A1 lists the PTAs in the dataset and indicates which PTAs include provisions on procurement). Of these 127 PTAs, 64 (50 percent) specify in some detail what specific types of procurement are covered through a mix of positive or negative lists of procuring entities (Table 1). A total of 48 of the 127 PTAs have a "hard law" dimension in the sense that at least some provisions are enforceable through formal dispute settlement procedures as well as domestic review ("bid challenge") mechanisms (permitting firms to contest ongoing procurement tenders and auctions).

3.5 Most of the 48 PTAs that include binding (i.e., enforceable) procurement provisions are North-South agreements in that they include one or more OECD member countries (See Annex 1, Table A2). But

[33] They potentially implied that EU firms would have better access to Canadian procurement opportunities than Canadian firms, given the continued prevalence of barriers to cross-provincial procurement within Canada. As a result, CETA triggered a revision of the Agreement on Internal Trade that aims to reduce such internal barriers, which was replaced in 2017 by a new Canadian Free Trade Agreement that ensures that Canadian firms will have the same treatment as EU firms once CETA enters into force. See https://www.theglobeandmail.com/report-on-business/rob-commentary/how-the-cfta-can-revolutionize-canadas-procurement-system/article34736386/.

[34] Absent international trade agreements such as the GPA, CETA, NAFTA and the 2010 bilateral with the US, foreign participation in procurement is limited through a Canadian Content Policy that is motivated by industrial policy objectives. The Canadian Content Policy applies to procurements carried out by Public Works and Government Services Canada that exceed C$25,000 (Lalonde, 2017).

there are also South-South PTAs centred on Central American states, Chile Colombia and Peru that include enforceable procurement provisions. Thus, in addition to PTAs with Australia, Canada, EFTA, the EU, Japan, Korea and the US, Chile has PTAs that include procurement disciplines with Costa Rica, Honduras, Guatemala, Nicaragua, and El Salvador. Many of the Pacific Alliance countries (Chile, Colombia, Mexico and Peru) have PTAs that include enforceable procurement disciplines. Other countries that have concluded a number of agreements spanning procurement include Australia, Canada, Japan, South Korea, Singapore and the US. Most of these countries are also signatories to the TPP, which includes comprehensive disciplines on public procurement.[35] Thus, PTAs with procurement coverage are predominately negotiated between countries in or around the Pacific Ocean.

Table 1:
Depth of procurement commitments in PTAs involving one or more non-GPA signatories

Criterion	Frequency (%)
Government procurement coverage is detailed in the agreement	49.6
The agreement covers only central government entities	8.5
Threshold values for purchases of goods are lower than in the GPA	14.7
Procurement provisions are enforceable (incl. via domestic review)	37.2

Note: Sample comprises 127 PTAs. See Annex 1, Table A2.
Source: Own calculations based on data provided by Anirudh Shingal.

3.6 There are no PTAs with serious coverage of procurement in Africa, the Middle East, or South Asia. Noteworthy is that the EU has not been a leader in this area. Abstracting from trade arrangements with accession countries, the EU has PTAs with non-GPA members that include enforceable procurement disciplines only with Central America, Chile, Colombia and Peru (the countries that have a revealed preference for deep PTAs more generally, i.e., this is not driven by the EU), the Cariforum and Georgia.

3.7 All of the PTAs that include procurement go beyond procurement of goods, i.e., they extend in principle to services and/or works as well. The overwhelming majority (91.5 percent) also go beyond central government entities. i.e., at least some sub-central government entities are covered by the agreement. Most agreements are modelled to a greater or lesser extent on the GPA. Few go beyond the GPA in terms of rules or coverage. Thus, a little less than one-sixth include threshold values that are less than those applying in the GPA, implying that applicable rules of the PTA apply sooner to calls for tender.

3.8 Domestic review bodies are particularly important for accountable procurement systems. Requirements that call for tender be published, that bids are opened in public, that procuring entities must award contracts to the lowest bidder who satisfies the technical criteria, and so forth, are much less relevant to firms if there is no effective recourse to situations where entities to do follow the rules. Domestic review mechanisms are in practice the primary if not sole recourse for firms, as dispute settlement procedures of the type embodied in the GPA and some PTAs (state-to-state conflict resolution) is too slow and often will not offer a useful remedy even if the case is won: the project is likely to have been completed before a dispute process has run its course. Compensation for opportunities forgone or even costs incurred are not on offer in the WTO or in most PTAs.

[35] The status of the TPP is yet to be determined. Following the US decision in early 2017 to withdraw, discussions are ongoing among the other 11 signatories about moving ahead with a TPP-11. The TPP procurement provisions are comprehensive but do not go beyond the GPA in terms of coverage of products and entities. Only five TPP signatories included sub-central procurement, subject to reciprocity. Non-GPA members Malaysia, Mexico and Vietnam negotiated exceptions to key provisions disciplining the use of offsets and price preferences, and limited the reach of procurement rules through high thresholds and long transitional periods (Grier, 2015).

However, in most national procurement regimes this is a possibility and in practice remedies may include compensation for tendering costs, compensation for damages and/or payment of legal fees. However, in the majority of cases that are brought domestic review bodies and that are won by the complainants, the remedy is overturning of the decision or act of the procuring entity that was challenged.

3.9 Domestic review mechanisms can take various forms. The most prevalent are procedures that are managed by the procuring entities themselves. This is the case for 55 percent of the 180 national public procurement regimes documented and assessed in World Bank (2017). An obvious potential concern with such systems is that they may not be independent or objective, and thus not be used in contexts where bidders perceive there to be weak governance and accountability. In 64 percent of the countries where procuring entities manage complaints, the same people whose action is being challenged are responsible for responding to complaints. Less frequently observed are independent administrative review bodies of the type the GPA calls for (28 percent of the 180 countries covered by World Bank, 2017). In many countries, at least in principle, recourse can also be made to the courts, insofar as complainants can allege that a law has been broken. However, in many countries a court case takes substantial time, and therefore is not very effective in dealing with procurement project issues in real time. The average length of time required to obtain a first-instance procurement challenge-related ruling varies greatly across countries. The same is true for second-instance tribunals and appeal bodies.[36]

3.10 More generally, it is important to note there are rather large discrepancies between what is covered by the various PTAs, including those that are more far-reaching, and prevailing procurement policy and practices in countries. Practice, at least as far as statutes and regulation is concerned, is usually specified in much greater detail and is more constraining on procuring entities than what PTAs require. Thus, the equivalent of "water in the tariff" or the difference between applied policy and what a government has committed to do in a PTA is usually substantial. Many countries that have not agreed to include procurement in any PTAs at all and have not joined the GPA, nonetheless have national procurement regulations and provisions that go well beyond what is found in the more ambitious PTAs that do include procurement (i.e., the set of PTAs where provisions being enforceable).

4 What is the value of including disciplines for procurement in trade agreements?

4.1 The basic features of the GPA and PTAs that include ambitious provisions on procurement are all very similar. The require national treatment for products and for firms established in the respective markets (FDI), and define coverage on the basis of lists of entities, the goods, services and works that these entities must apply the rules to, and the minimum contract threshold value above which the rules apply. The negotiating process centres on these three dimensions as well as on the extent to which a country can maintain policies that are inconsistent with national treatment – such as preferences for national or local firms (e.g., SMEs). The basic goal is market access – to increase the opportunities for foreign firms to win tenders. Do the agreements make a difference in this regard?

4.2 The evidence on this is mixed. Studies of the effect of the GPA include Evenett and Shingal (2006) and Shingal (2015), who use data reported by the few countries that provide statistics to the WTO on the nationality of firms winning tenders on contracts that are covered by the GPA, focusing on Korea, Japan, and Switzerland. Evenett and Shingal (2006) observe that in 1999 in Japan more contracts fell below the GPA thresholds than in earlier years, and that of the contracts that exceeded the threshold – and thus were covered by the GPA – a smaller share was awarded to foreign suppliers in 1998-99 than in 1990-91. Shingal (2015) undertakes an econometric analysis of the determinants of procurement sourcing over time in Japan and Switzerland, controlling for variables and factors that theoretical considerations suggest could impact on sourcing from foreign firms.

[36] This is one dimension where trade agreements covering procurement could make a difference: by setting standards (targets) for the time period for rulings to be made.

These include the state of the business cycle, overall trade policy trends and trade costs, and political economy variables. He finds that GPA membership has no independent effect on sourcing behaviour.

4.3 The same conclusion emerges from an analysis of the extension of the GPA in 1996 to include services procurement. Using data reported by Japan and Switzerland, Shingal (2011) concludes that the share of services contracts awarded to foreigners declined over time for both countries. The import penetration ratio for public purchases of services fell relative to that of the private sector for similar categories of services. One outlier in this literature in terms of findings is Chen and Whalley (2011). They estimate the effects of GPA membership on international trade in goods and services, including cross-border affiliate sales, for the 1995-2008 period. They find a positive and statistically significant impact of GPA membership on international sourcing. It is important to note that this paper differs from other research summarized above by considering FDI and not just cross-border trade. Establishment in a market (FDI) is a mechanism through which foreign firms can attempt to deal with discriminatory procurement regulation (Evenett and Hoekman, 2005).

4.4 As is the case for the GPA, there is little empirical research on the effect of PTAs on procurement outcomes. In part this reflects the absence of bilateral procurement sourcing statistics. Rickard and Kono (2014) assess the effects of 43 PTAs that include procurement, focusing on overall import penetration. They conclude that the PTAs have no impact on the procurement elasticity of trade (the ratio of imports to government demand). Thus, PTAs are no different from the GPA in impacting on procurement behaviour. Fronk (2014), focusing only on trade agreements involving the US (including the GPA), comes to a different conclusion. Using a gravity regression framework, Fronk finds a statistically significant positive effect of trade agreements on US procurement, generating an increase of 150 percent in the number of contracts annually won by foreign bidders. However, this is only equivalent to an additional 135 contracts – reflecting the fact that the mass of contracts (some 98 percent) is awarded to US firms. Thus, there is an effect, but because the baseline level of foreign awards is very small, the magnitude of the impact is also relatively small. Because US data on the nationality of winning bidders only starts in the mid-1990s, this analysis cannot consider the fact that the countries that mostly win procurement bids in the US (Canada, EU, Japan) are original members of the GPA (i.e., starting in 1981) and that much of the procurement that is analysed was already subject to multilateral disciplines for a long period of time. It is therefore not necessarily the case that the positive sourcing effect attributed to trade agreements is in fact due to them as opposed to other factors.

4.5 The EU has the most far-reaching set of rules on procurement of any PTA – essentially prohibiting procurement favouritism (Arrowsmith, 2014). It maintains a comprehensive database – the Tenders Electronic Daily (TED) – that includes data on all types of announcements of procurement opportunities in the EU. This database also is used to register the outcome of calls for tender. TED includes information such as year and date of award, the type of award procedure used, type of product or service procured, the awarding authority and the geographical location where the contract is performed. There is also information on the nationality of the contract winner. Combining this information permits an assessment of cross-border procurement in the EU as a whole and by EU Member State.

4.6 PWC and Ecorys (2010) find that on average about 3 percent of the value of all procurement contracts in the EU are allocated to foreign companies, including other EU countries. GHK (2010) conclude that cross-border procurement accounts for 1.5 percent of all contracts awarded in the EU, and 3.7 percent of the total value of above-threshold contracts. As is to be expected, smaller countries engage in more cross-border procurement, while local and regional authorities engage less frequently in cross-border transactions than central government entities and public utilities. The latter have the highest share of foreign sourcing of covered entities. SMEs accounted for 60 percent of all above threshold contracts awarded and around one-third of the value of all contracts during 2006-08 (GHK, 2010).

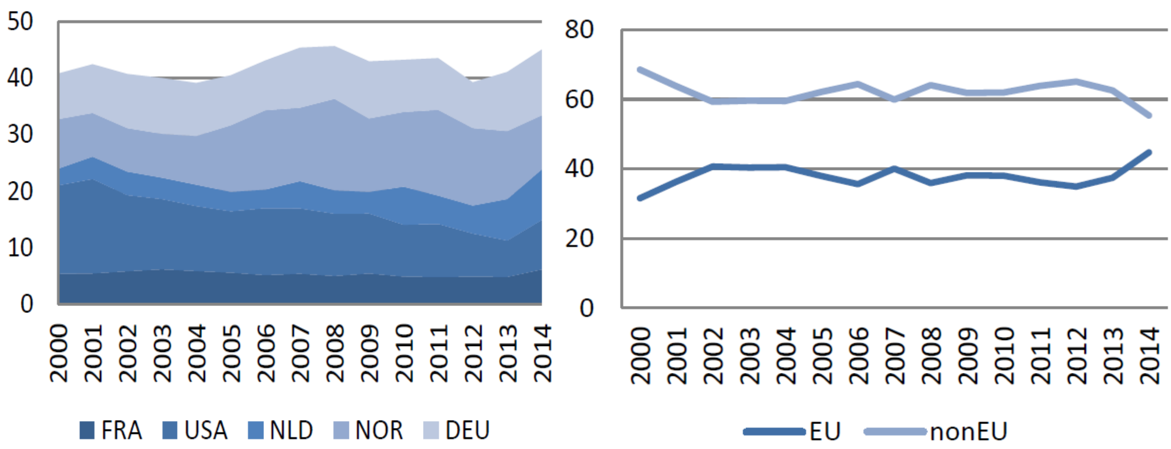
4.7 The picture changes if account is taken of subcontracting and bids that are won by subsidiaries of foreign companies. TED does not identify whether a winning bidder is an affiliate of a foreign firm, but this can be assessed by using other databases on business ownership and cross-holdings. An effort to so by Ramboll and HTW Chur (2011) concludes that 'indirect' cross-border procurement – i.e., awards allocated to affiliates of multinational enterprises – is substantially greater than direct cross-border procurement. This study concludes that direct cross-border procurement as measured by number of contracts and total value was 1.6 and 3.5 percent, respectively in 2009, as compared to 11.4 and 13.4 percent, respectively, for indirect cross-border procurement through foreign subsidiaries. These findings confirm the theoretical prediction that FDI is a means of responding to (circumventing) discriminatory procurement policies as well as often being a more efficient channel through which to supply foreign governments (Evenett and Hoekman, 2005) and are consistent with the findings of Chen and Whalley (2011) for the GPA if both services and sales by foreign affiliates are included in the analysis.

5 *WIOD-based analysis*

5.1 Miroudot and Messerlin (2012) use the 2011 version of the World Input-Output Database (WIOD) to calculate the public sector import penetration ratio for countries. What follows updates this analysis through 2014 and extends it by assessing econometrically whether the GPA acted as a source of external discipline following the 2008-09 financial crisis.[37]

5.2 Figure 1 reports data on the top five source countries for the UK's public import penetration (PIP) and the overall share of EU27 vs. non-EU countries. Figure 2 does the same for the UK's total imports. PIP is obtained from WIO and is defined as comprising both the import share in public final demand and the intermediate consumption of a subset of sectors that are significant contributors to public demand such as utilities (electricity, gas, water, sewage, education, health and post and communications sectors.[38]

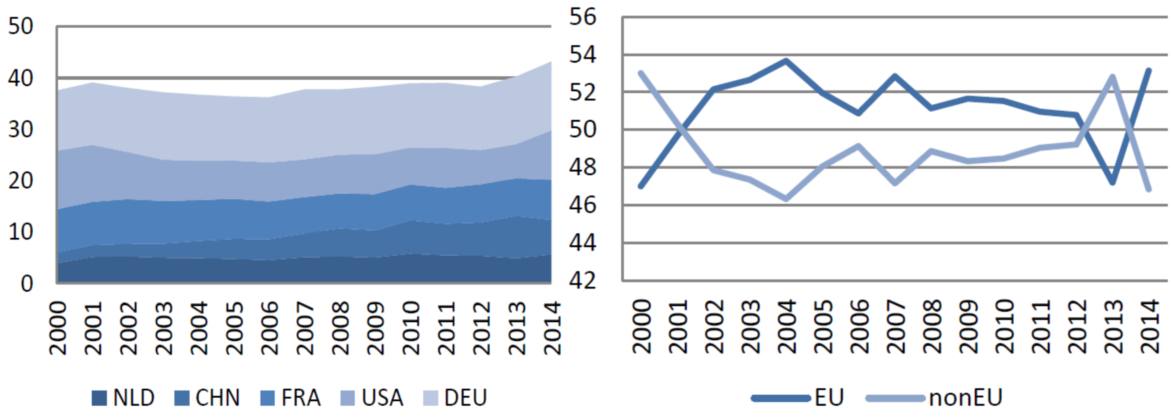
Figure 1: Public import penetration for the UK (WIOD 2016)



[37] It is important to recognize that WIOD data on the share of imported products in total government consumption are constructed on the basis of a country's overall imports of different types of goods as reflected in UN Comtrade statistics. They do not reflect reported imports by governments, as such data are not collected by national accounts statisticians. In the absence of more detailed comparable data on actual procurement WIOD offers a consistent and comparable set of proxies for government imports. Even though the specific absolute number for a country's share of imports in government consumption is unlikely to accurately reflect actual procurement patterns, because the WIOD data are constructed on a consistent basis in the same way for all countries, they permit an assessment of differences across countries in government imports, as well as trends for each country in the database over time – and the extent to which these are influenced by different variables, including membership of trade agreements.

[38] See Annex 2 for a description of how the WIOD-based data were used to construct our measure of PIP.

Figure 2: Sources of total imports (public and private) for the UK (WIOD 2016)



5.3 EU countries account for 45 percent of total PIP, i.e., the majority of public imports originates in non-EU countries. This contrasts somewhat with total UK imports, where the EU is the major source (53 percent). However, for both PIP and total imports the EU is the major source. The EU share in PIP has been increasing since 2000, rising from some 35 percent in 2000. There are three EU countries in the top 5 source of PIP: France, Netherlands and Germany. Compared to the UK's overall pattern of the origin of imports, a major difference between PIP and national imports is that China is less important for PIP.

5.4 **Table 2** reports WIOD data on public import penetration (PIP) for a selection of countries for three time periods, 2000-02, 2007-09 and 2012-14.39 The countries selected are large, given a presumption that small countries will generally display higher PIPs as they will have fewer opportunities to source nationally from globally efficient firms. The data indicate that the PIP ratios for the EU28 are some 10 percent higher than those of the US (extra-EU measures the import content from non-EU countries, i.e., excludes intra-EU sourcing by the public sector). Both the EU and the US import less than the simple world average (7 percent). This is to be expected given that large economies will be better able to source domestically from efficient firms.

5.5 The sample of non-GPA members included in Table 2 source more from abroad than the GPA members during the first 2 periods—6.2 vs. 5.7 in the 2000-02 period. This changes over the course of the decade: in 2007-09 the PIP ratios for the two groups are roughly the same, and by 2012-14 the GPA countries have higher PIP ratios than the selected non-GPA members (6.5 percent vs. 5.6 percent). However, the selected countries in both groups source less from the rest of the world than the world average – presumably reflecting their above average size. There are large differences across countries, with Brazil only sourcing 2.9 percent from abroad, as compared to Korea at 11.6 percent in 2012-14. Some of the larger non-GPA countries appear to have been shifting steadily away from foreign sourcing since 2000. This is the case for India, Turkey and China (post-2008). On average, GPA members see a more rapid increase in foreign sourcing during the 2000-14 period, resulting over time in convergence towards the average level of 'openness' of the world as a whole.

5.6 The UK increased the PIP ratio during the 2000-14 period, with growth rates for EU content exceeding that for sourcing from the rest of the world. As can be seen from Table 2, the WIOD data suggest that government consumption in the UK is substantially more import intensive than for the EU as a whole (11.2 vs. 4.8 percent).

[39] WIOD data are available for earlier years starting in 1995 but there are some differences in methodology across vintages of the database which may affect analysis based on combining different vintages. To avoid such potential problems we work with the most recent version of WIOD.

Table 2: Government consumption (import penetration ratios, selected countries)

	2000-02 simple average	2007-09 simple average	2012-14 simple average	% change 2000-08	% change 2008-14
***Non-GPA-members*:**					
Australia	6.1	5.9	5.5	-4.2	-6.7
Brazil	2.2	2.5	2.9	11.7	18.9
China	3.7	4.8	4.0	31.7	-17.0
India	4.0	5.5	5.5	35.1	-0.1
Indonesia	10.2	7.0	6.4	-31.5	-7.8
Mexico	5.8	6.1	6.6	4.5	8.3
Turkey	11.2	8.1	6.2	-27.7	-23.8
Average	6.2	5.7	5.3	-8.0	-6.8
GPA members:					
Canada	4.7	5.2	5.1	10.6	-1.8
Extra-EU28	3.7	4.6	4.8	23.8	6.2
Japan	2.2	4.4	6.6	103.8	50.8
Korea	8.7	9.6	11.6	11.3	20.2
US	3.3	4.1	4.1	26.4	-1.2
Average	4.5	5.6	6.5	24.3	15.4
World	5.7	7.0	7.0	21.9	0.8
Memo: Intra-EU28	3.8	4.6	4.8	22.0	2.7
UK (from EU27)	3.2	3.8	4.4	20.5	14.0
UK (from non-EU)	5.6	6.2	6.9	11.2	10.0
UK (total)	8.8	10.1	11.2	14.6	11.5

Source: WIOD 2016 database. At: http://www.wiod.org/release16.

5.7 There are substantial differences in foreign sourcing before and after the 2008 financial crisis. The data suggest that GPA members continued to increase foreign sourcing, whereas for a number of the non-GPA countries import penetration declined significantly. The PIP ratio fell by 6.8 percent post 2008 for the selected non-GPA members – with the greatest declines in Turkey (a drop of 24 percent) and China (-28 percent). Conversely, it increased by 15 percent on average for the GPA members in Table 2. The share of foreign sourcing declined only for Canada and the US. Thus the data are indicative of the GPA potentially playing a role as a commitment mechanism that has prevented "backsliding" and a shift in the allocation of fiscal expenditures towards domestic industries—behaviour that governments naturally have stronger incentives to engage in during recessions and times of crisis.

5.8 **Table 3** reports the results of the following simple OLS regression of PIP by country across time, distinguishing between GPA members and non-GPA members:

$$PIP_t = \beta_0 + \beta_1 GPA + \beta_2 Trend + \beta_3 GPA \times Trend + u_t.$$

This uses data on all countries included in WIOD (43 countries plus a residual "rest of the world" variable). As can be seen, GPA members show a larger share of foreign sourcing over the period covered when conditioning on GPA membership exclusively (column 1), but this is something that occurred for all countries over the time period (column 2). Column 3 reports the results from including the interaction effect between GPA membership and the time trend. While non-GPA members show no signs of growth in PIP over the sample period, GPA members exhibit a significantly positive trend in PIP between 2000 and 2014.

Table 3: PIP trend over time for GPA and non-GPA members, 2000 – 2014

	(1)	(2)	(3)
GPA	0.0461***		0.0218**
	(0.0030)		(0.0071)
Trend		0.0015***	-0.0009
		(0.0004)	(0.0006)
GPA=1*Trend			0.0030***
			(0.0007)
Constant	0.0606***	0.0854***	0.0681***
	(0.0025)	(0.0032)	(0.0062)
Observations	660	660	660

Standard errors in parentheses; Dependent Variable in all models: public import penetration. Data: WIOD 16

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

5.9 In what follows we investigate the impact of GPA membership empirically. We regress PIP by country over the 2000-14 period on a variety of explanatory variables including GPA membership. Our interest is to explore whether GPA membership had an impact on foreign sourcing during and after the 2008 financial crisis. We used a fixed effects methodology which precludes direct estimation of the effects of GPA membership on PIP, as GPA membership is a variable that is constant during the time period considered. However, the approach does allow for assessment of the effect of GPA membership in the post crisis period by inclusion of an interaction effect between GPA membership status and the crisis. This is our variable of interest. The precise model we estimate is given by:

$$PIP_{it} = \beta_0 + \beta_1 Crisis_t + \beta_2 Crisis_t \times GPA_i + \beta_C Controls_{it} + \alpha_i + u_{it}.$$

A definition of the variables can be found in Annex 3.

5.10 We report two sets of regression results. The first uses the WIOD-2012 database and the second uses WIOD-2016. One reason is to determine whether results are consistent across different vintages of WIOD. Another reason is that the databases span different time periods (1995-2011 vs. 2000-2014). The additional three years of post-crisis data in WIOD16 permits a better assessment of post-crisis behaviour. In all regressions, the dependent variable is the PIP as defined by Miroudot and Messerlin (2012). We estimate 4 models for each of the WIOD datasets. Model (1) includes no controls. Model (2) includes a set of controls for policies towards openness ("trade restrictiveness"), including the OECD Product Market Regulation index, the OECD indicator for the restrictiveness of policies towards FDI (FDIRI), the average weighted MFN import tariff rate for each country and the number of PTAs each country has signed. Model (3) includes a different set of controls – GDP and GDP per capita. Model (4) includes all controls.

5.11 The results of this exercise are similar across the two WIOD databases/time periods, but much more robust for the more recent period. The crisis dummy has the expected sign and is weakly significant in some models using the WIOD 2012 dataset; it is not significant in any of the models using the more recent WIOD 2016 data. The GPA appears to play a significant role in the crisis period. This is reflected in the positive and statistically significant coefficient estimate for the interaction term Crisis*GPA. For the data up to 2011 (**Table 4**) the effect is only weakly significant (5% level), but the relationship becomes much stronger for the more recent period (**Table 5**). This effect of the GPA is robust to adding controls for the degree of openness/protection implied by policy (PMR, FDIRRI, average import tariff, number of PTAs) behave generally as expected, with the crisis dummy and these controls mostly having the expected negative signs. Exceptions are FDIRI in WIOD16 which has a positive sign (but is not significant) and the sign for the number of PTAs, which is negative but again not significant (**Table 5**).

Table 4: WIOD12: Public import penetration, 1995-2011

	(1)	(2)	(3)	(4)
Crisis	-0.0027	-0.0149*	-0.0107	-0.0171*
	(0.0047)	(0.0073)	(0.0063)	(0.0076)
Crisis*GPA	0.0140*	0.0168*	0.0113	0.0185*
	(0.0059)	(0.0074)	(0.0069)	(0.0074)
PMR		-0.0161*		-0.0150*
		(0.0066)		(0.0069)
FDIRI		-0.0196		-0.0302
		(0.0248)		(0.0175)
Avg. Tariff		-0.0014**		-0.0011**
		(0.0005)		(0.0003)
No. of PTAs		-0.0000		0.0000
		(0.0001)		(0.0000)
GDP			0.0033	0.0015
			(0.0019)	(0.0009)
GNI/capita			0.0007***	0.0001
			(0.0002)	(0.0001)
Constant	0.0965***	0.1241***	0.0786***	0.1165***
	(0.0007)	(0.0115)	(0.0033)	(0.0134)
Observations	697	433	645	428

Notes: Fixed effects estimation; PIP defined as in Miroudot and Messerlin (2012). Standard errors in parentheses.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 5: WIOD16: Public import penetration, 2000-2014

	(1)	(2)	(3)	(4)
Crisis	-0.0070	-0.0033	-0.0074	-0.0040
	(0.0039)	(0.0042)	(0.0050)	(0.0043)
Crisis*GPA	0.0225***	0.0152***	0.0196***	0.0141**
	(0.0046)	(0.0042)	(0.0051)	(0.0044)
PMR		-0.0017		-0.0006
		(0.0048)		(0.0059)
FDIRI		0.0488		0.0568
		(0.0312)		(0.0344)
Avg. Tariff		-0.0014**		-0.0015**
		(0.0005)		(0.0005)
No. of PTAs		-0.0000		-0.0000
		(0.0000)		(0.0000)
GDP			0.0002	0.0001
			(0.0010)	(0.0009)
GNI/capita			0.0001	0.0002
			(0.0002)	(0.0003)
Constant	0.0922***	0.0857***	0.0883***	0.0788***
	(0.0010)	(0.0093)	(0.0051)	(0.0174)
Observations	660	492	626	492

Notes: Fixed effects estimation; PIP defined as in Miroudot and Messerlin (2012). Standard errors in parentheses.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

5.12 These findings continue to hold if we control for country size and per capita income instead of policy indicators of openness (model 3) and if we include all controls, although the coefficient estimate becomes smaller and loses some significance (it falls to the 1 percent level) (model 4). The analysis reveals that the commitment or binding effect of the GPA is robust to inclusion of controls for general policies that affect the openness of the economy.

6 Beyond reciprocal market access commitments

6.1 Most of the extant research on the GPA finds that it does little to increase market access for foreign suppliers. Moreover, there is also little evidence that PTAs have had an impact on changing procurement sourcing. The main effect of the GPA – and an important one – is that it seems to have played a role in constraining countries from increasing home bias after the 2008 crisis. This in turn suggests there is value in negotiating binding disciplines in trade agreements, but that this value is associated with "locking in" policies as opposed to increasing actual levels of openness.

6.2 The results presented above suggest a trend of greater foreign sourcing over time. The WIOD 2012 database suggests the global PIP ratio was 4.2 percent in 1995; this rose to 7.1 percent in 2014 (based on WIOD16 data). This trend is observed across all countries, for both GPA and non-GPA members – although as noted previously there seems to have been a shift away from foreign sourcing in a number of large non-GPA members, especially post 2008. The general trend of increasing foreign sourcing observed in the data up to 2008 for most countries suggests factors other than the market access features of trade agreements are at play. There are many possibilities. One could be technology – a decline in information and search costs through the use of e-procurement and internet platforms. Another is a more general shift in policy towards greater openness to trade and to FDI that is independent of procurement policy. An increase in the global stock of FDI and two-way flows of FDI may result in foreign affiliates winning more bids and relying more on imports than do domestic firms. Yet another possible driver is changes in procurement regimes and processes, such as the shift towards greater use of competitive negotiation and dialogue discussed above. These may be associated with more intensive scrutiny of government behaviour and performance, tighter budget constraints, and greater use of outsourcing and public-private partnerships. A common feature of these possible drivers is that they centre on changes in incentives as opposed to top down international market access liberalization commitments.

6.3 Kutlina-Dimitrova and Lakatos (2016) use statistics for 2008-12 reported in the TED database to investigate the determinants of foreign sourcing by EU public entities. They find that the probability of a contract being won by a foreign-based supplier depends positively on the value of the contract awarded and negatively on the number of bids. They also find that GDP per capita (wealth) and a country's overall openness as captured by the trade-to-GDP ratio are positively associated with the probability of cross-border procurement. In addition, they show that measures of the quality of the 'behind-the-border' investment climate such as the prevalence of entry-restricting product market regulation, barriers to FDI and the share of public enterprises in the economy all have a statistically significant negative impact on the probability of cross-border procurement. These findings, in conjunction with the empirical analyses that find little or no effect of trade agreements after controlling for other determinants of government behaviour, suggest there may be only a limited payoff from the type of reciprocal procurement market access focus that is central to the GPA and PTAs. Other policies – more general opening towards trade and FDI, pro-competitive regulation of product markets and the business environment may have a greater impact.

6.4 Another explanation for the apparent lack of impact of trade agreements on foreign sourcing is that the disciplines associated with these treaties are not very effective in reducing the scope for procurement favouritism. The strong political drivers for sourcing from local firms – as well as potential economic and "value for money" reasons for sourcing from locally-based firms (Evenett and Hoekman, 2005) – are often prominent in public debate and deliberations around procurement rules.

6.5 A major dimension of procurement-related disciplines and provisions in trade agreements centres on transparency (ensuring full information on opportunities and outcomes) and rules covered procuring entities must abide by.[40] As discussed in the literature on public procurements – see e.g., Evenett and Hoekman (2005) or the contributions and references in Georgopoulos et al. (2017) – transparency is

40 What follows draws on Hoekman (2017).

very important for improving outcomes by encouraging competition (increasing participation) and for accountability – including ensuring that firms know what is required of them and of the procuring entities, thereby enabling them to contest instances of perceived noncompliance by government agencies with mandated procedures and disciplines. This includes information on applicable standards, whether product or non-product specific economic regulation, and the associated conformity assessment procedures.

6.6 Achieving value for money goals is more likely in economies that are open and markets are contestable. Insofar as import tariffs and other barriers to trade are high or there are significant restrictions on inward FDI, there will less choice (less competition) and thus more likely that costs of acquiring goods and services for procuring entities will be higher than they would otherwise be – no matter how effective procurement disciplines are.

6.7 This has implications for the design of international cooperation on procurement. Insofar as: (i) a narrow market access reciprocity focus limited to procurement is unlikely to have much of an effect; (ii) the revealed preference of governments to use different types of procurement contracts for industrial policy objectives and to allocate most contracts locally; the focus of rules of the game (trade agreements) should be on lock-in provisions (policy bindings), institutional strengthening and good governance dimensions of procurement processes. The latter are largely a matter for technical assistance and other forms of soft law cooperation – aid for trade.

6.8 One reason why market access reciprocity arguably has limited returns is that many contracts issued by procuring entities concern products that are difficult to supply on a cross-border basis. Construction and services of many kinds will generally have to be supplied locally and there may be good reasons for procuring locally even if a good is tradable. If the products procured are intangible (services) or there are problems in monitoring and enforcing contract compliance, discrimination can increase the likelihood of performance by suppliers. The best (economic) case for discrimination revolves around situations where there is asymmetric information, e.g., difficulties in monitoring the performance of a contractor. Entities may be able to economize on monitoring costs by choosing suppliers that are located within their jurisdictions (Breton and Salmon, 1995). The policy issue that arises in such situations is whether there are barriers against establishment (FDI) by foreign suppliers, as this is a precondition for them to bid for/supply contracts (Evenett and Hoekman, 2005).

6.9 Turning to industrial policy, there are good arguments for why targeted procurement through which the government creates demand for new or innovative technologies may be superior to policies that target the supply side such as R&D subsidies. Geroski (1990) notes that this can both stimulate innovation and allow firms to learn by doing. Insofar as governments care about the nationality or ownership of the firms that acquire and control such technologies, discrimination will be a feature of the associated procurement process. However, it is not obvious that this will be optimal in terms of achieving the underlying goal. If control is an objective then contracts can be structured so as to ensure that the government will be able to determine how the results of what is being financed can be used/made available. If one of the objectives is to utilize and develop local capacity and expertise, then this can be specified as well, implying that firms bidding for the contract need to have a local presence. Discrimination against foreign firms in such "public procurement for innovation" is therefore neither needed nor likely to be desirable in attaining the innovation objective.

6.10 The pursuit of non-economic objectives by governments can have very different implications for economic efficiency. In principle, policy should target directly the source of problem at hand: lack of economic opportunities for minority groups; regional economic wealth differentials; market failures, and so forth. For example, take the case where a government awards a tender to an SME instead of a large company that submitted a lower cost bid because of an SME preference policy. It may be more effective and efficient if instead the government were to address the factors that impede the ability of SMEs to compete with larger firms. This may reflect different factors, ranging from financial market imperfections to administrative requirements that are excessively costly for SMEs to meet. Dealing with these constraints directly as opposed to using a SME preference policy will be more efficient.

6.11 These considerations are relevant for the design of procurement policies and international cooperation. Governments may be more inclined to pursue a non-discriminatory procurement policy if they can use other policies that are more effective in attaining specific 'non-procurement' goals – and in the process also generate more efficient procurement outcomes. An implication is that the main payoff in terms of creating greater competition may be through reform of other policies. Such other policies include procurement rules, as distinct from removing market access restrictions ('buy national' rules). As is the case with regulation more generally, procurement policy does not lend itself easily to negotiation – e.g., seeking to agree that all contracts of type X must be procured through process type Y. This helps to understand the emphasis in the GPA on transparency and on principles that signatories agree to abide by when engaging in procurement. However, the GPA disciplines are primarily motivated by the market access objective. The agreement is not designed to support learning by regulators, procuring entities and the public at large (voters) regarding policies and approaches that are effective, efficient in attaining different types of objectives, and generate fewer negative spillovers for trading partners.

6.12 International cooperation and fora that support diffusion of knowledge and learning about the effects of alternative procurement approaches has tended to be piecemeal and ad hoc. The Tokyo Round GPA originated in Paris, and was based on a set of principles developed by an OECD working group over the course of a decade of talks (Hoekman and Mavroidis, 1997). Some innovations in rules that were added over time – such as incorporating bid-challenge provisions – derived from the Canada-US FTA (Woolcock, 2012). Initiatives by the EC were at the source of other changes to the GPA, e.g., the inclusion of utilities and local government procurement in the GPA, reflecting EU disciplines that were adopted as part of the effort to establish a single European market. However, all such examples of diffusion were very much centred on enhancing market access, with better procurement practices being incidental to (or, rather, instrumental for) achieving this goal.

6.13 Gelderman, Ghijsen and Schoonen (2010) argue that greater interaction and engagement between stakeholders is needed for improved compliance with procurement rules. Such interaction is important in developing a common view on what constitutes good procurement practice and should include consideration and discussion of evolving best practices of purchasing in the private sector. There are elements and examples of collaborative interactions among procurement practitioners, including communities of practice supported by multilateral development banks, and initiatives by the OECD and APEC to provide opportunities for practitioners to interact. Much more can and arguably should be done in this regard.

6.14 Starting in the mid-1990s, efforts have been made to identify and spread the adoption of good practices, including the deliberations on potential disciplines on transparency that were launched at the WTO's ministerial in Singapore in 1996 (Evenett and Hoekman, 2005). These provided a forum for interaction with other entities such as the multilateral development banks, NGOs such as Transparency International, and the UN. The discussions were not successful in mobilizing sufficient support to initiate negotiations on specific rules, in large part because developing countries were not convinced that discussions on transparency would not morph into market access talks they were unwilling to consider. Given that greater transparency is likely to be welfare-improving for a variety of reasons, including by facilitating participation of domestic firms in procurement and reducing the scope for corruption and collusion, this was unfortunate.

6.15 The WTO experience illustrates the challenge of making trade agreements foci for deliberations on good regulatory practices and venues for sharing information and learning from experience. In practice a "non-market access lens" may be more effective in promoting reforms and may be a precondition for eventual adoption of binding disciplines of the type found in the GPA. There is potential in this connection for the UK to consider an initiative to support platforms linking aid for trade and procurement regulation/reform, in the process indirectly supporting development objectives. There is arguably a bit of a gap in this area. The World Bank has at times been a focal point for international dialogue, but as a lending institution has tended to be more concerned with ensuring that value for money is achieved for its own projects as opposed to a focus on learning from procurement practices around the world and innovations in these practices. Specialized international fora that have focused on procurement policies and practices such as UNCITRAL have tended to emphasize design of legislation rather than promote exchanges and learning from experience.

6.16 The type of deliberation that could make a concrete difference in improving procurement practices is illustrated by the Public Procurement Knowledge Exchange Forum, an initiative started in the early 2000s, co-sponsored by multilateral development banks supporting countries in Europe and Central Asia,41 and the consultative process that was undertaken by the World Bank during 2013-14 and that informed the development of the most recent World Bank Procurement Framework (World Bank, 2015). This new framework moves the World Bank away from a rigid one-size-fits-all approach. Instead, it aims at supporting the delivery of better procurement outcomes by increasing the number of approaches and methods that can be used, reflecting the experience and innovations, both technical (e-procurement) and regulatory (mechanism design). A central feature of post-2015 World Bank procurement practice is a much stronger emphasis on complementary capacity-building and implementation-related assistance than there has been in the past, including for NGOs and private sector.

7 Concluding remarks

7.1 The stylized fact characterizing the 35 year existence of GATT/WTO GPA is that developing countries have refused to join the agreement. Indeed, even some OECD member countries have yet to sign this agreement. One response of GPA members has been to revise the GPA to make it more attractive to hold-outs. This has led to a few more countries joining – e.g., New Zealand in 2016, and Australia likely to accede at the end of 2017 – but in practice the focus of efforts to include procurement in trade agreements have centred on PTAs during the last 15 years or so. Space constraints prevent a comprehensive discussion of the factors underlying the limited success of the GPA in expanding membership – see e.g. Georgopoulos et al. (2017) –but one important factor is that there is little incumbents can offer to countries that have very limited capacity to contest foreign procurement markets. In contrast a PTA provides the scope to engage in issue linkage and offer countries "compensation" for accepting procurement disciplines in other areas covered by the PTA.

7.2 As discussed above, some 50 extant PTAs now have at least some enforceable provisions on public procurement policies. However, the geographic distribution of these agreements is rather skewed. Leaving aside the EU accession process and the EU single market itself, the EU has not been a market leader in this policy domain. Few of the EU's PTAs have far-reaching procurement provisions and those that do are often with countries that already GPA members. The latter PTAs certainly improve market access on the margin (and in the case of CETA quite substantially) but there is clearly significant scope to do much more to include procurement in PTAs with developing countries.

7.3 The research literature on procurement and trade agreements provides weak evidence at best for the market access function of procurement disciplines. There is stronger evidence that the GPA has worked as an effective commitment device, constraining governments from becoming more protectionist in their procurement sourcing decisions following the 2008-09 US/EU financial crisis and the subsequent global recession/period of slow growth. Our analysis of the effects of GPA membership suggests that it has value as a mechanism to safeguard market access and implicitly therefore to ensure consistent application of procurement rules even in times where political incentives to buy local are likely to rise – as in the recent post financial crisis period. However, the extent to which the WIOD data reflect actual procurement practice is a crucial empirical question – our results must therefore be qualified as being conditional on there being a high correlation between our WIOD based estimates of public import penetration and actual procurement patterns. In the case of the EU, for which detailed procurement contract data are available, the actual import ratios are very similar to what we derive from WIOD, but this is not necessarily the case for other countries..

[41] The aim of the forum is to promote and foster regional cooperation and good governance in public procurement. See: http://www.worldbank.org/en/events/2015/06/09/11th-public-procurement-knowledge-exchange-forum#4.

7.4 Although the evidence suggests there is value in including binding procurement disciplines in trade agreements, it also suggests that from both a value for money and a market access perspective there may be high payoffs to efforts that centre on improving procurement practices through alternative (complementary) mechanisms of international cooperation. These include knowledge platforms and related initiatives to support learning and dissemination of good practices in this area. Aid for trade allocated to such initiatives – possibly linked to PTAs that include provisions on procurement – could help in establishing the preconditions and support necessary for gradual incorporation of procurement rules in trade agreements.

7.5 There are significant evidence gaps that are important from a policy-making and prioritization perspective. As mentioned previously, comparable disaggregated data on actual public procurement patterns are not available on a cross-country and time series basis. In the context of negotiating trade agreements that include disciplines on procurement, and more generally, in designing development assitance programs that centre on procurement regimes and practices, a priority should be to do more to generate data on the procurement process and outcomes. Which firms win? What is their origin? To what extent are provisions calling for discrimination in favor of certain types of firms actually applied in decisions and awards of contracts? What is an appropriate value threshold under which a procuring entity need not engage in international competitive bidding? Are price preferences and local content requirements used? If so, how effective are they and at what cost? What are the effects of policies that encourage or require some level of participation of SMEs in government contracts?

7.6 These are all questions for which there are serious evidence gaps. Initiatives such as the Global Trade Alert track changes in legislation and regulations in the field of procurement in an effort to track changes in procurement policies across countries, but analysis of the effects of such changes requires data on actual procurement decisions to assess whether policy changes result in changes in government entity behavior. From a market access or enforcement of trade agreements perspective this is a priority for research in this area. Another priority related to both trade agreement enforcement and broader governance and accountability objectives is to enhance knowledge of whether and how domestic review mechanisms of procurement processes at country level work. This should include a focus on whether origin or ownership of firms or their sourcing behavior is a factor influencing decisions by procuring entities.

7.7 In practice research on these questions will need to include country-level analysis that employs the most detailed tender/contract allocation data available. Such data are becoming more accessible as a result of e-procurement systems. A greater allocation of resources to support efforts to compile and analyse such datasets would help in filling the evidence gaps, improving procurement regimes over time and generate the data needed to assess (monitor) the extent to which home bias in public procurement is attenuated by international rules and trade agreements.

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Annex 1 to Chapter 5

Table A1: All PTAs included in the dataset, with status of procurement coverage

Agreements with NO procurement provisions		
APTA	EU-Andorra	Mexico-Uruguay
APTA-Accession of China	EU-FYR Macedonia	Mexico-Panama
ASEAN - India	EU-Faroe islands	Mexico-Peru
ASEAN - Japan	EU-NZ-Malaysia	Nicaragua-Chinese Taipei
ASEAN FTA	EU-Papua New Guinea-Fiji	PAFTA
ASEAN- Australia/New Zealand	EU-Syria	PATCRA
ASEAN-Korea	El Salvador Honduras	Pakistan - Malaysia
ASEAN–China	El Salvador-Cuba	Pakistan - Sri Lanka
Agadir Agreement	GCC	Panama - Chinese Taipei
Andean Community	GSTP Agreement	Panama-Chile
Armenia-Kazakhstan	Georgia - Armenia	Panama-DR
Armenia-Turkmenistan	Georgia - Kazakhstan	Panama-Nicaragua
CACM	Georgia - Turkmenistan	Peru - China
CARICOM	Georgia-Azerbaijan	Peru-Chile
CEMAC	Georgia-Russia	Russia-Azerbaijan
CEZ	Georgia-Ukraine	Russia-Belarus-KZ
COMESA	Guatemala- Chinese Taipei	Russia-Serbia
Canada-Jordan	India - Afghanistan	Russia-Tajikistan
Chile - India	India – Bhutan	Russia-Turkmenistan
Chile - Vietnam	India – Malaysia	Russia-Uzbekistan
Chile-Malaysia	India – Nepal	SACU
Chile-Mexico	India – Singapore	SADC
Chile-Vietnam	India - Sri Lanka	SADC-Seychelles
China – New Zealand	Japan - Indonesia	SAFTA
China-Hong Kong	Japan- Malaysia	SAFTA-Accession of Afghanistan
China-Macau	Korea-India	SAPTA
Colombia-Mexico	Korea-Turkey	SPARTECA
Costa Rica-China	Korea-Vietnam	Thailand-NZ
EAC	Kyrgyz Republic - Armenia	Turkey - Albania
EAC-Burundi/Rwanda	Kyrgyz Republic Uzbekistan	Turkey - Chile
EAEC	Kyrgyz Republic-Kazakhstan	Turkey-Mauritius
EAEU-Armenia	Kyrgyz Republic-Ukraine	Ukraine - Azerbaijan
EAEU-Kyrgyzstan	Kyrgyz republic-Moldova	Ukraine - Belarus
ECO	LAIA-ALADI	Ukraine - Kazakhstan
ECOWAS	Lao-Thailand	Ukraine - Tajikistan
EU - Albania	MERCOSUR	Ukraine - Turkmenistan
EU - Cote d'Ivoire	MERCOSUR - India	Ukraine - Uzbekistan
EU - Lebanon	Malaysia-Australia	
EU - San Marino	Mauritius-Pakistan	

Agreements with procurement provisions		
Australia-Chile	EFTA-Turkey	Mexico-Central America
Australia-China	EU - Algeria	NAFTA
Australia-NZ	EU - Bosnia and Herzegovina	PICTA
Brunei-Darussalam-Japan	EU - Cameroon	Pacific Alliance
CAFTA-DR	EU - Central America	Pakistan - China
CEFTA	EU - Jordan	Panama-Central America
CIS	EU - Montenegro	Panama-El Salvador
Canada - Costa Rica	EU - Serbia	Panama-Guatemala
Canada-Chile	EU -Tunisia	Panama-Honduras
Canada-Colombia	EU- Egypt	Panama-Peru
Canada-Honduras	EU- Georgia	Panama-SGP
Canada-Panama	EU- Morocco	Peru-Korea
Canada-Peru	EU-CARIFORUM	Peru-SGP
Chile - China	EU-Chile	SGP-Australia
Chile - Costa Rica	EU-Colombia and Peru	TPP
Chile-Colombia	EU-Eastern and Southern Africa	Thailand - Australia
Chile-El Salvador	EU-Mexico	Trans-Pacific Strategic Economic Partnership
Chile-Guatemala	EU-Palestinian authority	Turkey - Bosnia and Herzegovina
Chile-Honduras	EU-South Africa	Turkey - Jordan
Chile-Japan	EU-Turkey	Turkey - Montenegro
Chile-Nicaragua	Egypt – EFTA	Turkey - Morocco
China-Korea	Egypt – Turkey	Turkey - Palestine
China-Switzerland	Faroe Island - Norway	Turkey - Serbia
Colombia-Northern Triangle	Faroe Islands-Switzerland	Turkey - Syria
Costa Rica - Singapore	GCC-Singapore	Turkey Israel
Costa Rica-Colombia	HK China-Chile	Turkey- Georgia
Costa Rica-Peru	Iceland - Faroe Islands	Turkey-Macedonia
EAEU	Iceland-China	Turkey-Tunisia
EFTA - Albania	India- Japan	US- Jordan
EFTA - Jordan	Israeli-Mexico	US-Australia
EFTA - Lebanon	Japan - Australia	US-Bahrain
EFTA - SACU	Japan - Philippines	US-CAFTA-DR
EFTA - Serbia	Japan - Thailand	US-Chile
EFTA - Tunisia	Japan - Vietnam	US-Colombia
EFTA -Morocco	Japan-Mexico	US-Morocco
EFTA-Bosnia and Herzegovina	Japan-Mongolia	US-Oman
EFTA-Central America	Japan-Peru	US-Panama
EFTA-Chile	Jordan – Singapore	US-Peru
EFTA-Colombia	Korea-Australia	Ukraine - FYR Macedonia
EFTA-Macedonia	Korea-Chile	Ukraine - Moldova
EFTA-Mexico	Korea-Colombia	WAEMU
EFTA-Palestinian Authority	Korea-Singapore	
EFTA-Peru	MSG	

N= 242

Table A2: Subset of PTAs including procurement language/provisions (N=127)

Agreement NOT enforceable		
Australia-China	EU - Cameroon	Pakistan - China
Australia-NZ	EU - Jordan	Panama-Central America
Brunei-Darussalam-Japan	EU - Montenegro	Panama-El Salvador
CAFTA-DR	EU - Serbia	Panama-Guatemala
CEFTA	EU -Tunisia	Panama-Honduras
CIS	EU- Egypt	Panama-Peru
Canada - Costa Rica	EU- Morocco	SGP-Australia
Chile - China	EU-Eastern and Southern Africa	Thailand - Australia
Chile-Colombia	EU-Mexico	Turkey - Bosnia and Herzegovina
China-Korea	EU-Palestinian authority	Turkey - Jordan
China-Switzerland	EU-South Africa	Turkey - Montenegro
Colombia-Northern Triangle	EU-Turkey	Turkey - Morocco
Costa Rica-Colombia	Egypt - EFTA	Turkey - Palestine
Costa Rica-Peru	Egypt - Turkey	Turkey - Serbia
EFTA - Albania	Iceland - Faroe Islands	Turkey - Syria
EFTA - Jordan	Iceland-China	Turkey Israel
EFTA - Lebanon	India- Japan	Turkey- Georgia
EFTA - SACU	Japan - Philippines	Turkey-Macedonia
EFTA - Serbia	Japan - Thailand	Turkey-Tunisia
EFTA - Tunisia	Japan - Vietnam	US- Jordan
EFTA -Morocco	Japan-Mongolia	US-CAFTA-DR
EFTA-Bosnia and Herzegovina	Jordan - Singapore	US-Morocco
EFTA-Macedonia	Korea-Singapore	Ukraine - FYR Macedonia
EFTA-Palestinian Authority	MSG	Ukraine - Moldova
EFTA-Turkey	Mexico-Central America	WAEMU
EU - Algeria	PICTA	
EU - Bosnia and Herzegovina	Pacific Alliance	

Agreement enforceable		
Australia-Chile	EFTA-Colombia	Korea-Australia
Canada-Chile	EFTA-Mexico	Korea-Chile
Canada-Colombia	EFTA-Peru	Korea-Colombia
Canada-Honduras	EU - Central America	NAFTA
Canada-Panama	EU- Georgia	Panama-SGP
Canada-Peru	EU-CARIFORUM	Peru-Korea
Chile - Costa Rica	EU-Chile	Peru-SGP
Chile-El Salvador	EU-Colombia and Peru	TPP
Chile-Guatemala	Faroe Island - Norway	Trans Pacific Economic Partnership
Chile-Honduras	Faroe Islands-Switzerland	US-Australia
Chile-Japan	GCC-Singapore	US-Bahrain
Chile-Nicaragua	HK China-Chile	US-Chile
Costa Rica - Singapore	Israeli-Mexico	US-Colombia
EAEU	Japan - Australia	US-Oman
EFTA-Central America	Japan-Mexico	US-Panama
EFTA-Chile	Japan-Peru	US-Peru

Annex 2 to Chapter 5

Definition of Public Import Penetration (PIP) using WIOD database

- Introduced by Ramboll (2012), subsequently used in Messerlin and Miroudot (2012)
- Idea: In addition to public final demand (PFD), assign intermediate consumption of subset of sectors considered (partially) public to public demand.
- Data requirement: Full set of international IO tables w/ both intermediate and final demand.
- Different denominator from previous measure: total use/demand.
- Definitions:
    - total demand is defined as total use as in the I-O literature: total demand = intermediate consumption + final consumption + investment + exports for all sectors.
    - imports are defined as the sum of imports in final demand and intermediate consumption by industries in the respective sector
    - sector import share is derived as the fraction of imports in total use of the respective sector
- Industries in the Public Sector:
    - WIOD 12: (Ramboll/Miroudot-Messerlin definition) 100%: electricity/water/gas, public admin, education, health; 50%: post/telecomm.
    - WIOD 16: (adopted in the present analysis) 100%: electricity/gas, water, sewage/waste, public admin, education, health; 50%: post, telecomm.

Annex 3 to Chapter 5

Regression Variable Definitions

- ***Public import penetration***: Percentage share of public imports in total public demand. Defined as in Miroudot and Messerlin (2012).
- ***Crisis***: Dummy variable equal to 1 for all years from 2008 onwards until the end of the sample.
- ***Trend***: Linear annual trend variable equal to 1 in the base year (2000 for WIOD 16).
- ***GPA***: Dummy variable equal to 1 for all countries that are members of the GPA.
- ***PMR***: Index for degree of Product Market Regulation. Interpolated linearly for years in which the index is not available. Sourced from OECD.
- ***FDIRI***: Index for the degree of FDI restrictiveness. Compiled by the OECD. Interpolated linearly for years in which the index is not available.
- ***Avg. Tariff***: Weighted average tariff rate imposed on imports in the respective country and year. Obtained from the World Integrated Trade Solution (WITS): http://wits.worldbank.org.
- ***No. PTAs***: Number of PTAs the country is a member of in the respective year. Obtained from WITS.
- ***GDP***: GDP in millions of current USD. Obtained from WITS.
- ***GNI/capita***: GNI/capita calculated using the Atlas method in thousands of current USD. Obtained from WITS.

Chapter 6
Analysis of Services Trade Policy

Matteo Fiorini and Bernard Hoekman (EUI)

1 Introduction

1.1 As a high-income country, services account for some 80 percent of UK GDP and employment. The UK has a strong comparative advantage in services. Some 50 percent of gross exports comprise of services. This rises to two thirds of total exports if flows are measured on a value added basis. The UK is also an open economy in terms of its policy stance towards trade in services.

1.2 What follows presents a broad descriptive analysis of UK services trade policy and comparisons with the prevailing policy regimes in the EU27 and other OECD nations. Data from a variety of sources reveal that the UK is more open than the EU27 and other OECD countries. Ceteris paribus, the UK therefore offers a relatively attractive market for services exports. Whether developing countries will be able to take advantage of the relatively open market in the UK will depend on their comparative advantages and capabilities/capacity to export services. The relatively open policy stance reduces the scope for putting in place preferential trade policies to benefit suppliers in low-income countries, but our review of current trade policies towards services suggests that there are important potential areas where such preferences could be significant.

2 UK services trade policy

2.1 The main source of information on UK and EU services trade policy used in this appendix is the Services Trade Restrictiveness Index Database that has been developed by the OECD (http://www.oecd.org/tad/services-trade/services-trade-restrictiveness-index.htm). It consists of three observations (2014, 2015 and 2016) of services trade restrictions for 44 countries and up to 22 services sectors. The main variable in the database is the Services Trade Restrictiveness Index, which takes values from 0 (no restrictions) to 1 (maximum restrictiveness). These values are based on a scoring system that reflects expert judgement on how specific measures impact on firms seeking to provide different types of services. The indicator can be disaggregated into 5 additive policy components: restrictions on foreign entry, restrictions to movement of people, other discriminatory measures, barriers to competition and regulatory transparency.[42]

2.2 **Figure 16** shows the evolution of UK services trade policy (as captured in the aggregate STRI) in 20 sectors across the three years covered by the OECD database.[43] The chart reveals a general trend of policy progress toward a less restrictive policy environment. A policy steady state is observed in distribution and construction: two of the most open sectors to begin with. However, in three out of four of the covered professional services – accounting, architecture, and engineering - restrictions have increased between 2014 and 2015. Some policy progress is observed between 2015 and 2016

[42] The basic approach is that all policy measures are assigned a score of 0 (not restrictive) or 1 (restrictive), and policy areas are weighted according to relative importance. Weights are determined on the basis of expert judgement—groups of experts were asked to distribute 100 points among the policy areas covered according to how they see the relative importance for each sector. The weights applied use the results of this expert judgment exercise. Thus, the same policy area takes a different weight in different sectors. Detailed information on the STRI database and the STRI construction methodology can be found in (Grosso et al. 2015).

[43] We exclude from the present analysis the two sectors of motion pictures and sound recording which are systematically not covered in other relevant databases.

but restrictions in these sectors remain higher than they were in 2014. Finally, we observe very little policy progress in the most restricted sector of air transports.

Figure 16: UK STRI over time

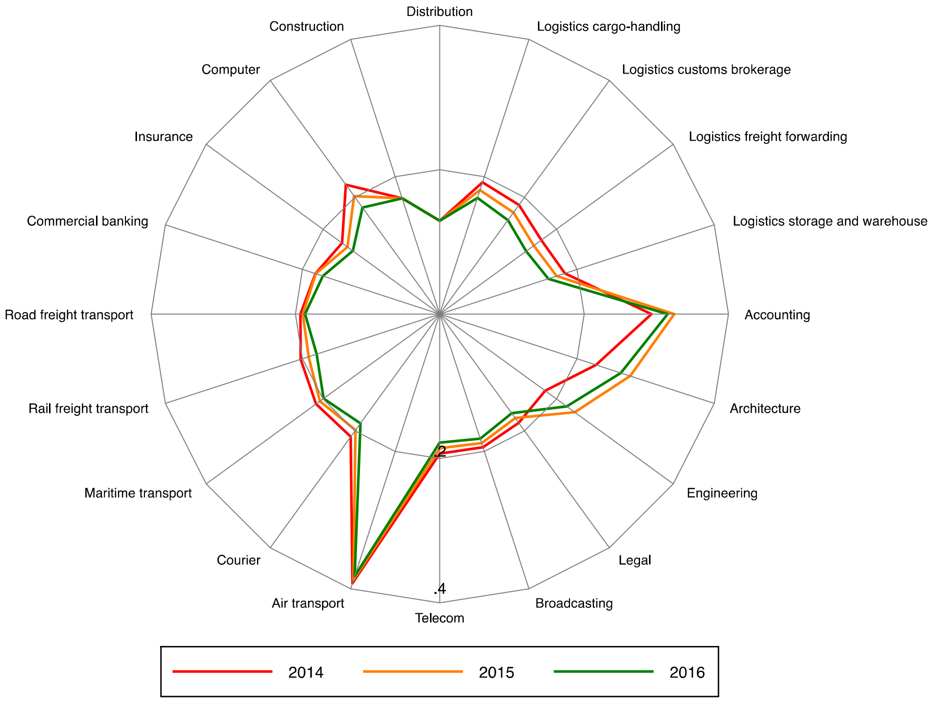


Table 12: STRI evolution across policy dimensions

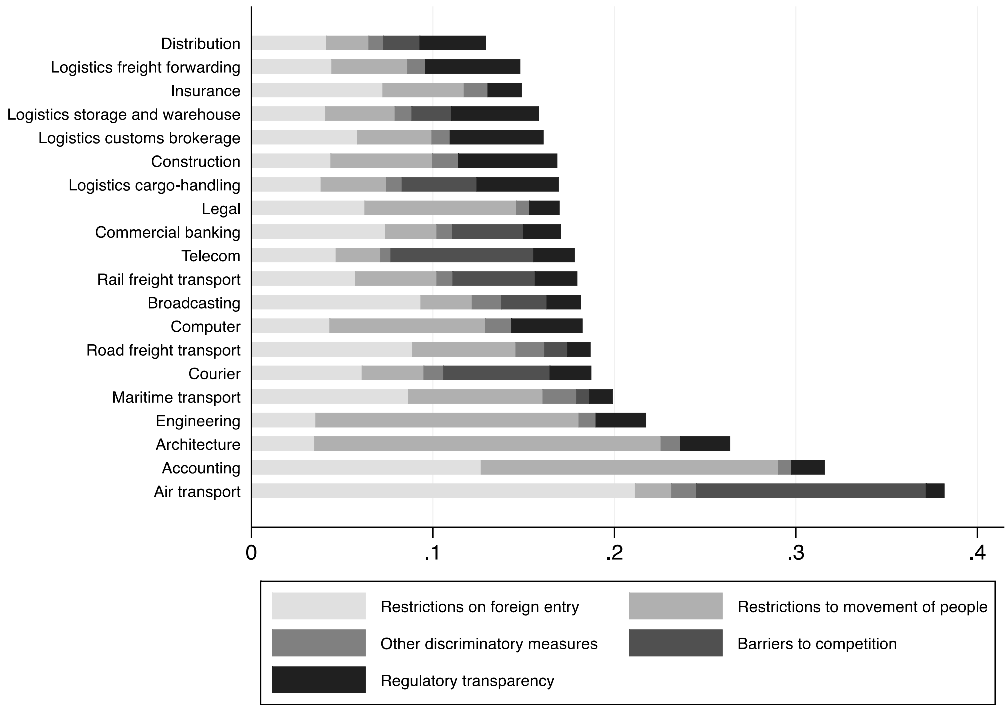
Policy dimension	Restrictions on foreign entry			Restrictions to movement of people			Other discriminatory measures			Barriers to competition			Regulatory transparency		
Year	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Distribution	0.041	0.041	0.041	0.023	0.023	0.023	0.008	0.008	0.008	0.020	0.020	0.020	0.036	0.036	0.036
Logistics cargo-handling	0.038	0.038	0.038	0.036	0.036	0.036	0.009	0.009	0.009	0.041	0.041	0.041	0.068	0.056	0.045
Logistics customs brokerage	0.058	0.058	0.058	0.041	0.041	0.041	0.010	0.010	0.010	0.000	0.000	0.000	0.077	0.064	0.052
Logistics freight forwarding	0.044	0.044	0.044	0.042	0.042	0.042	0.010	0.010	0.010	0.000	0.000	0.000	0.078	0.065	0.052
Logistics storage and warehouse	0.041	0.041	0.041	0.038	0.038	0.038	0.009	0.009	0.009	0.022	0.022	0.022	0.072	0.060	0.048
Accounting	0.126	0.126	0.126	0.123	0.164	0.164	0.007	0.007	0.007	0.000	0.000	0.000	0.037	0.028	0.018
Architecture	0.035	0.035	0.035	0.127	0.191	0.191	0.011	0.011	0.011	0.000	0.000	0.000	0.055	0.041	0.028
Engineering	0.035	0.035	0.035	0.081	0.145	0.145	0.009	0.009	0.009	0.000	0.000	0.000	0.055	0.041	0.028
Legal	0.062	0.062	0.062	0.083	0.083	0.083	0.007	0.007	0.007	0.000	0.000	0.000	0.033	0.025	0.016
Broadcasting	0.093	0.093	0.093	0.028	0.028	0.028	0.016	0.016	0.016	0.025	0.025	0.025	0.031	0.025	0.019
Telecom	0.047	0.047	0.047	0.024	0.024	0.024	0.006	0.006	0.006	0.079	0.079	0.079	0.038	0.030	0.023
Air transport	0.211	0.211	0.211	0.020	0.020	0.020	0.014	0.014	0.014	0.127	0.127	0.127	0.020	0.015	0.010
Courier	0.061	0.061	0.061	0.034	0.034	0.034	0.011	0.011	0.011	0.059	0.059	0.059	0.046	0.034	0.023
Maritime transport	0.086	0.086	0.086	0.074	0.074	0.074	0.019	0.019	0.019	0.007	0.007	0.007	0.026	0.019	0.013
Rail freight transport	0.057	0.057	0.057	0.045	0.045	0.045	0.009	0.009	0.009	0.045	0.045	0.045	0.047	0.035	0.023
Road freight transport	0.089	0.089	0.089	0.057	0.057	0.057	0.016	0.016	0.016	0.013	0.013	0.013	0.019	0.016	0.013
Commercial banking	0.074	0.074	0.074	0.028	0.028	0.028	0.009	0.009	0.009	0.029	0.039	0.039	0.041	0.031	0.021
Insurance	0.072	0.072	0.072	0.045	0.045	0.045	0.013	0.013	0.013	0.000	0.000	0.000	0.037	0.028	0.019
Computer	0.043	0.043	0.043	0.086	0.086	0.086	0.015	0.015	0.015	0.000	0.000	0.000	0.078	0.059	0.039
Construction	0.044	0.044	0.044	0.056	0.056	0.056	0.015	0.015	0.015	0.000	0.000	0.000	0.054	0.054	0.054

Notes: the table reports values policy specific STRI for all 5 policy dimensions and for all 3 time observations in the OECD database. Adjacent time observations within a specific dimension are highlighted in green (orange) whenever a less (more) restrictive stance is observed going from the first to the second observation.

2.3 The patterns of policy evolution can be disaggregated along the 5 components of STRI. Table 12 reports yearly scores for each policy dimension. Adjacent time observations within a specific dimension are highlighted in green (orange) whenever a less (more) restrictive stance is observed going from the first to the second period. No colour is used when there is no policy change. Table 12 shows that all policy progress has happened uniquely through an increase in regulatory transparency. Instead, the significant increase in STRI for accounting, architecture and engineering comes from higher restrictions to the movement of people.

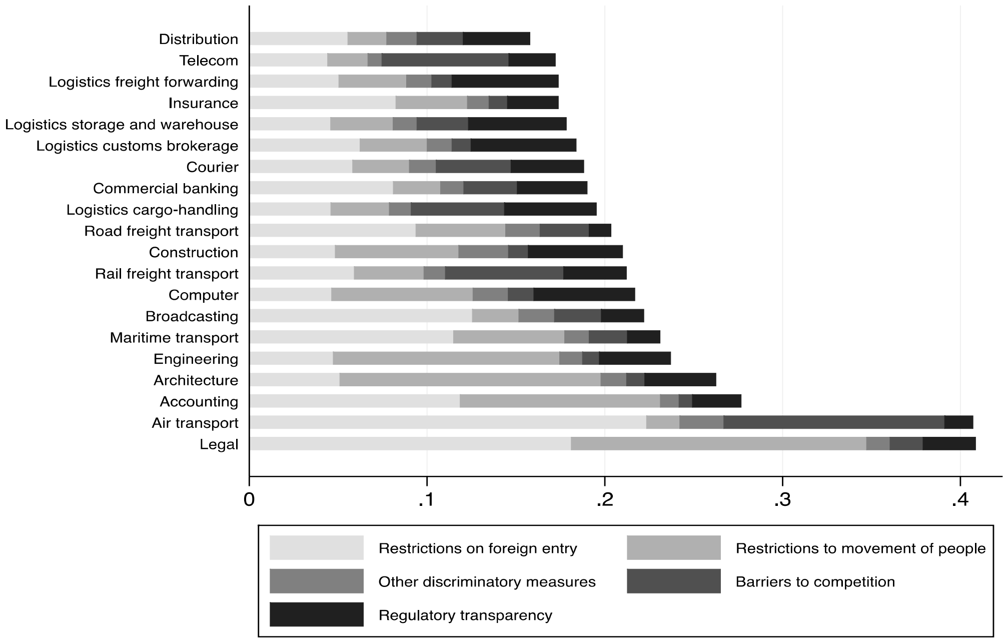
2.4 **Figure 17** focuses on the most recent observation and shows the relative contribution of each policy dimension to the overall STRI score. The relative share of each policy component varies across sectors. Barriers to foreign entry tend to prevail insurance, broadcasting, road freight transport, and air transport. Restrictions to the movement of people emerge has the highest component of overall restrictions in all 4 professional services and in computer related services. The residual category of other discriminatory measures is never predominant while barriers to competition seem particularly relevant in telecommunications. Finally, regulatory transparency tends to be a minor dimension everywhere but in logistics, construction and distribution.

Figure 17: STRI UK individual policy areas (2016)



2.5 Figure **18** replicates the policy decomposition across sectors for the average EU27 country.

Figure 18: STRI EU27 individual policy areas (simple average across countries, 2016)



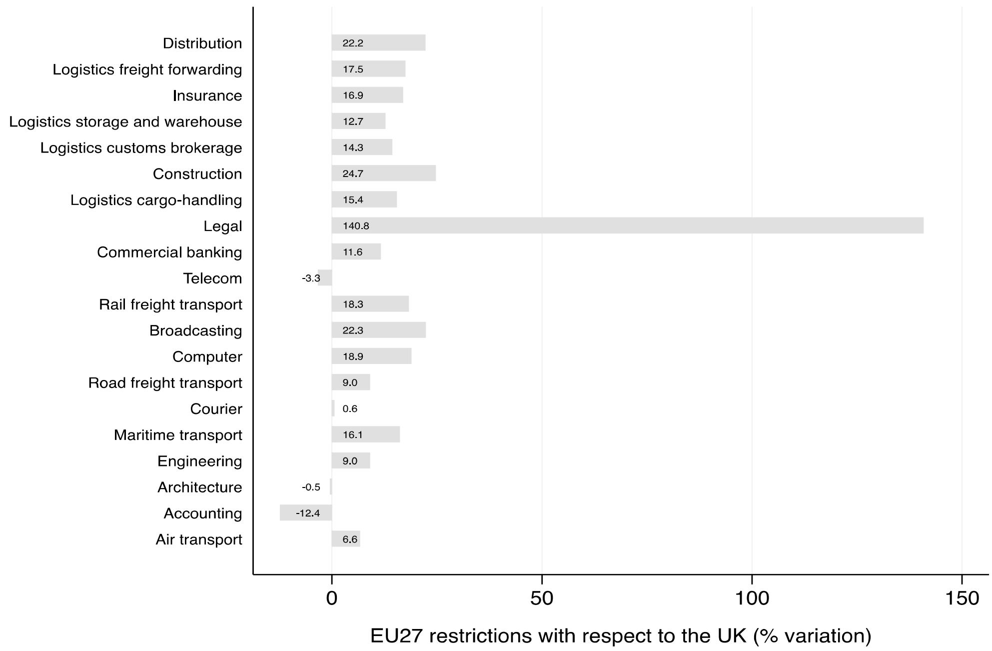
2.6 In order to better compare the policy stance of the UK with that prevailing on average in the EU27, **Table 13** reports for the aggregate STRI and for each specific policy dimension the absolute variation of EU27 restrictiveness compared to the respective UK score. This information is complemented by Figure 19 which offers a graphical representation of the corresponding percentage variation in the STRI indicator (the percentage changes implied by the absolute variations reported in the last column of **Table 13)**. Sector-policy pairs where the EU27 is on average more restrictive than the UK are highlighted in green while those for which EU27 imposes less restrictions than the UK are marked in orange. A number of observations can be made. First, the UK emerges as generally less restrictive than the average country in the EU27. However, except for legal services, there is no sector where the UK is less restricted across all covered policy dimensions. Moreover, for accounting, architecture and telecom services the EU27 appears as more open than the UK according to the aggregate STRI score. Finally, the UK systematically imposes more restrictions than the EU27 on the movement of people (with the notable exception of legal services and construction). Notwithstanding, the policy gap between the UK and EU27 is systematically higher when the UK imposes relatively less restriction. This suggests that when the UK appears as more protectionist than the average country in the EU27, the policy gap between them is relatively narrow.

Table 13: EU27 restrictiveness relative to the UK (absolute variation, 2016)

	Restrictions on foreign entry	Restrictions to movement of people	Other discriminatory measures	Barriers to competition	Regulatory transparency	Indicator STRI
Distribution	0.0142	-0.0016	0.0090	0.0060	0.0011	0.0287
Logistics cargo-handling	0.0075	-0.0029	0.0036	0.0113	0.0067	0.0261
Logistics customs brokerage	0.0040	-0.0034	0.0041	0.0107	0.0076	0.0230
Logistics freight forwarding	0.0060	-0.0034	0.0041	0.0114	0.0077	0.0258
Logistics storage and warehouse	0.0049	-0.0031	0.0042	0.0070	0.0071	0.0201
Accounting	-0.0078	-0.0512	0.0033	0.0075	0.0092	-0.0391
Architecture	0.0163	-0.0441	0.0039	0.0102	0.0125	-0.0012
Engineering	0.0118	-0.0176	0.0034	0.0094	0.0126	0.0197
Legal	0.1187	0.0827	0.0057	0.0187	0.0131	0.2389
Broadcasting	0.0322	-0.0021	0.0037	0.0015	0.0051	0.0405
Telecom	-0.0025	-0.0018	0.0021	-0.0072	0.0034	-0.0059
Air transport	0.0122	-0.0015	0.0112	-0.0024	0.0058	0.0253
Courier	-0.0028	-0.0022	0.0044	-0.0165	0.0181	0.0011
Maritime transport	0.0285	-0.0116	-0.0047	0.0143	0.0057	0.0321
Rail freight transport	0.0019	-0.0058	0.0032	0.0213	0.0122	0.0328
Road freight transport	0.0050	-0.0065	0.0036	0.0150	-0.0003	0.0168
Commercial banking	0.0073	-0.0018	0.0044	-0.0089	0.0188	0.0197
Insurance	0.0102	-0.0047	-0.0009	0.0103	0.0102	0.0251
Computer	0.0033	-0.0062	0.0053	0.0144	0.0178	0.0345
Construction	0.0046	0.0137	0.0133	0.0112	-0.0012	0.0416

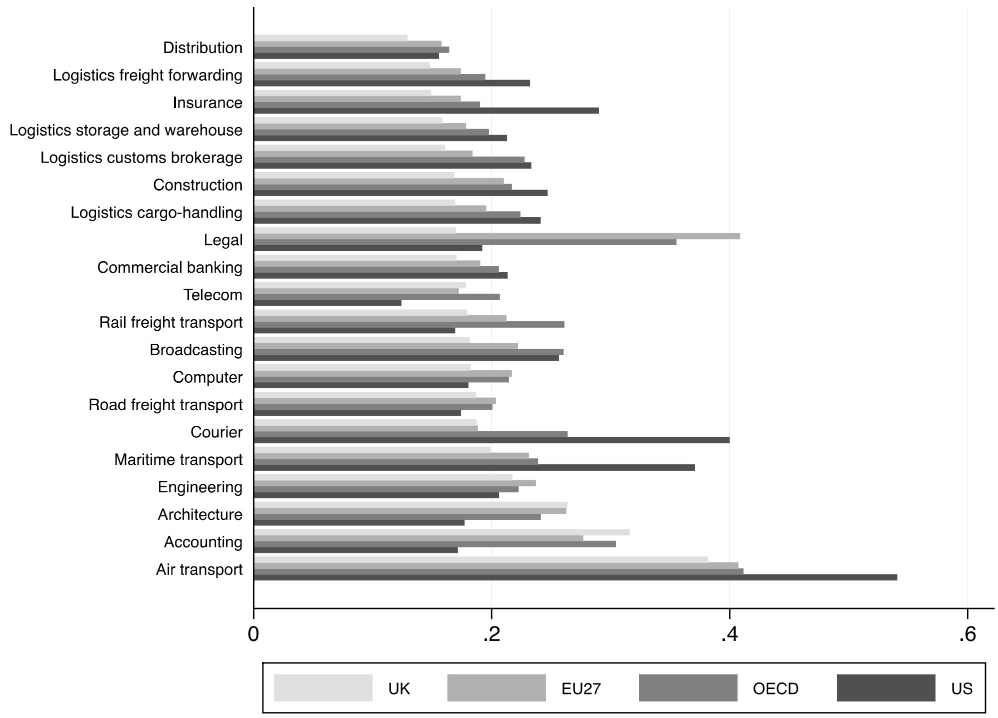
Notes: reports for the aggregate STRI and for each specific policy dimension the absolute variation of EU27 restrictiveness compared with the respective UK score. Sector-policy pairs where the EU27 is on average more restrictive than the UK are highlighted in green while those for which EU27 imposes less restriction than the UK are marked in orange.

Figure 19: STRI and how EU27 compares to the UK



2.7 **Figure 20, Figure 21** and **Figure 22** focus on UK aggregate STRI scores across sectors plotting them alongside the respective policy regimes in other relevant countries and country groups. The UK outperforms in terms of services trade openness the average EU27 and OECD country and for many services sectors it is more open than the US. The US imposes less trade restrictions in telecom, rail and road freight transport, computer, accounting, architecture and engineering sectors.

Figure 20: STRI in the UK, EU27, OECD and the US



2.8 **Figure 21** and **Figure 22** reveal some heterogeneity across EU27 sub-regions (see Supplementary Material) for the definition of EU27 sub-regions used in this appendix). The Baltic group is more open than the UK for almost all services sectors. For a smaller number of sectors including telecom, accounting, architecture and engineering the UK is also more restrictive than the average country in the sub-regions Central EU15 and Northern EU15.

Figure 21: STRI in the UK and EU15

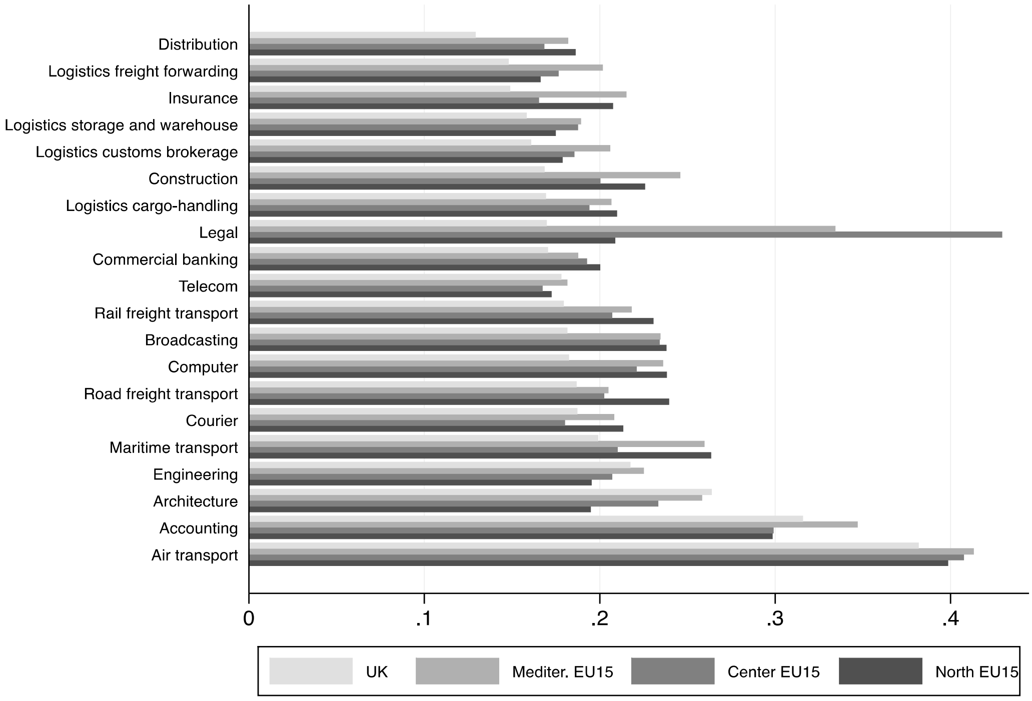


Figure 22: STRI in the UK and other EU regions

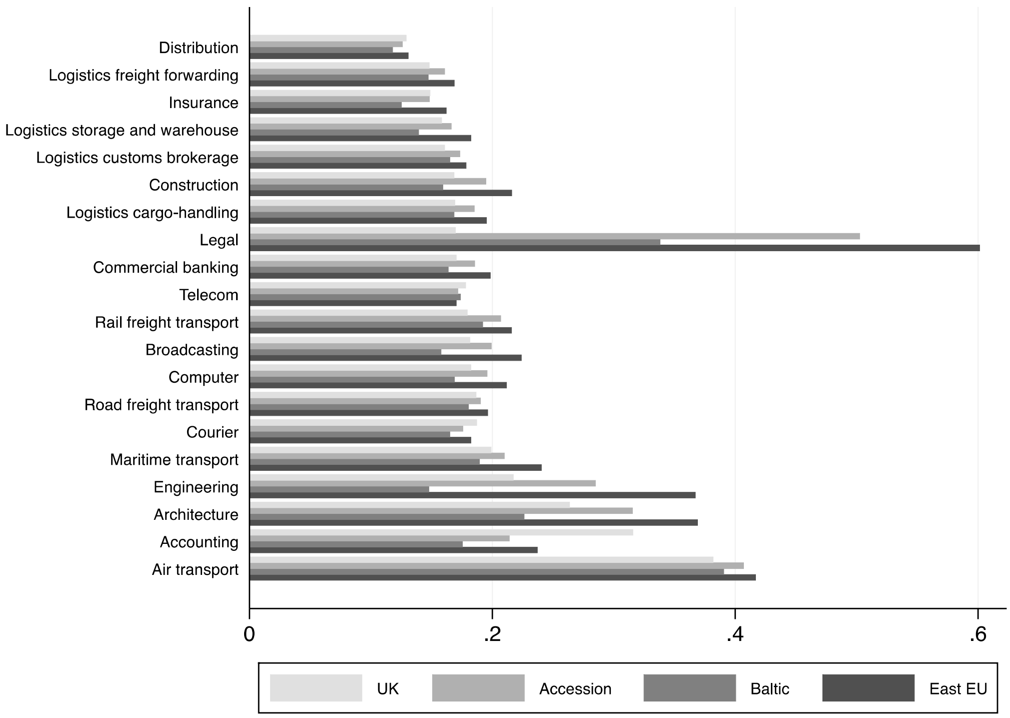


Table 14: STRI (OECD database, 2016)

	Logistics cargo-handling	Logistics customs brokerage	Logistics freight forwarding	Logistics storage and warehouse	Distribution	Accounting	Engineering	Legal	Architecture	Telecom	Broadcasting	Maritime transport	Rail freight transport	Road freight transport	Air transport	Courier	Insurance	Commercial banking	Computer	Construction
AUS	0.291	0.226	0.226	0.244	0.125	0.193	0.123	0.158	0.153	0.171	0.203	0.212	0.207	0.146	0.342	0.394	0.183	0.164	0.148	0.159
AUT	0.203	0.222	0.21	0.216	0.177	0.342	0.304	0.417	0.301	0.15	0.402	NA	0.232	0.228	0.396	0.213	0.241	0.22	0.28	0.24
BEL	0.265	0.256	0.244	0.236	0.239	0.418	0.251	0.307	0.345	0.21	0.268	0.291	0.269	0.244	0.465	0.295	0.215	0.259	0.318	0.292
BRA	0.358	0.294	0.251	0.327	0.207	0.271	0.232	0.299	0.247	0.318	0.477	0.312	0.255	0.215	0.581	0.544	0.365	0.454	0.292	0.23
CAN	0.218	0.171	0.156	0.166	0.26	0.247	0.179	0.165	0.21	0.313	0.303	0.19	0.165	0.152	0.409	0.386	0.213	0.184	0.18	0.243
CHE	0.277	0.279	0.282	0.282	0.219	0.312	0.285	0.409	0.287	0.269	0.399	NA	0.295	0.244	0.45	0.422	0.25	0.294	0.35	0.298
CHL	0.242	0.378	0.212	0.192	0.133	0.081	0.113	0.136	0.112	0.27	0.29	0.214	0.218	0.127	0.196	0.486	0.164	0.208	0.139	0.117
CHN	0.437	0.324	0.327	0.332	0.271	0.423	0.245	0.472	0.248	0.443	0.678	0.405	0.296	0.259	0.461	0.877	0.451	0.409	0.309	0.313
COL	0.306	0.255	0.246	0.235	0.154	0.255	0.207	0.172	0.197	0.309	0.679	0.253	0.255	0.193	0.282	0.263	0.257	0.31	0.27	0.248
CRI	0.379	0.327	0.302	0.336	0.229	0.377	0.26	0.181	0.263	0.266	0.265	0.296	0.337	0.418	0.285	0.232	0.208	0.231	0.286	0.249
CZE	0.179	0.184	0.171	0.169	0.106	0.233	0.258	0.311	0.273	0.207	0.151	NA	0.234	0.18	0.426	0.168	0.161	0.17	0.224	0.186
DEU	0.153	0.143	0.142	0.141	0.106	0.213	0.204	0.243	0.203	0.158	0.191	0.176	0.191	0.187	0.385	0.13	0.131	0.152	0.17	0.13
DNK	0.169	0.149	0.136	0.147	0.143	0.253	0.16	0.258	0.16	0.122	0.231	0.208	0.183	0.212	0.378	0.199	0.165	0.175	0.194	0.19
ESP	0.206	0.215	0.229	0.197	0.145	0.316	0.279	0.33	0.28	0.262	0.234	0.229	0.246	0.193	0.42	0.229	0.202	0.152	0.253	0.264
EST	0.216	0.205	0.178	0.164	0.132	0.187	0.193	0.487	0.399	0.204	0.191	0.248	0.231	0.228	0.398	0.2	0.119	0.182	0.228	0.188
FIN	0.222	0.197	0.185	0.192	0.223	0.314	0.228	0.185	0.227	0.228	0.254	0.278	0.272	0.25	0.413	0.224	0.25	0.238	0.279	0.236
FRA	0.187	0.158	0.145	0.178	0.174	0.483	0.144	0.593	0.197	0.195	0.248	0.209	0.198	0.234	0.401	0.151	0.147	0.188	0.18	0.201
GBR	0.169	0.161	0.148	0.158	0.129	0.316	0.217	0.17	0.264	0.178	0.181	0.199	0.179	0.187	0.382	0.187	0.149	0.17	0.182	0.168
GRC	0.24	0.23	0.218	0.212	0.227	0.274	0.225	0.492	0.227	0.152	0.244	0.349	0.231	0.228	0.418	0.212	0.236	0.228	0.259	0.288
HUN	0.228	0.214	0.201	0.221	0.172	0.274	0.269	0.757	0.271	0.183	0.237	NA	0.238	0.237	0.422	0.215	0.203	0.232	0.265	0.262
IDN	0.435	0.283	0.366	0.359	0.63	0.424	0.286	0.879	0.287	0.53	0.39	0.575	0.353	0.399	0.467	0.441	0.496	0.476	0.291	0.386
IND	0.346	0.294	0.281	0.311	0.406	0.88	0.272	0.906	0.63	0.486	0.353	0.386	1	0.269	0.508	0.546	0.543	0.5	0.335	0.309
IRL	0.189	0.172	0.159	0.169	0.149	0.205	0.146	0.202	0.187	0.131	0.197	0.198	0.178	0.19	0.392	0.16	0.113	0.145	0.165	0.166
ISL	0.345	0.354	0.34	0.346	0.346	0.34	0.343	0.55	0.332	0.319	0.463	0.346	NA	0.415	0.511	0.472	0.372	0.359	0.442	0.476
ISR	0.311	0.245	0.24	0.254	0.144	0.315	0.243	0.286	0.234	0.401	0.288	0.216	1	0.203	0.434	0.436	0.242	0.233	0.22	0.348
ITA	0.228	0.214	0.204	0.207	0.166	0.29	0.16	0.199	0.236	0.159	0.279	0.264	0.222	0.218	0.386	0.226	0.209	0.172	0.216	0.203
JPN	0.226	0.19	0.207	0.188	0.116	0.194	0.153	0.268	0.153	0.191	0.239	0.198	0.174	0.117	0.36	0.247	0.173	0.194	0.156	0.101
KOR	0.16	0.127	0.129	0.094	0.089	1	0.137	0.428	0.173	0.289	0.268	0.254	1	0.114	0.404	0.364	0.105	0.178	0.1	0.111
LTU	0.167	0.182	0.169	0.156	0.132	0.221	0.13	0.45	0.174	0.13	0.143	0.193	0.191	0.174	0.386	0.158	0.136	0.185	0.165	0.156
LUX	0.176	0.18	0.18	0.209	0.184	0.268	0.23	1	0.229	0.143	0.15	NA	0.234	0.168	0.428	0.184	0.159	0.206	0.229	0.193
LVA	0.123	0.108	0.094	0.098	0.09	0.118	0.121	0.078	0.105	0.187	0.14	0.128	0.154	0.139	0.388	0.137	0.121	0.124	0.114	0.134
MEX	0.317	1	0.259	0.272	0.178	0.145	0.184	0.17	0.185	0.227	0.616	0.348	0.286	0.203	0.382	0.448	0.227	0.346	0.192	0.219
NLD	0.185	0.167	0.155	0.164	0.149	0.164	0.171	0.244	0.17	0.185	0.183	0.178	0.147	0.168	0.385	0.128	0.15	0.179	0.205	0.179
NOR	0.311	0.29	0.282	0.271	0.266	0.328	0.244	0.307	0.247	0.336	0.319	0.257	0.309	0.294	0.545	0.33	0.294	0.281	0.31	0.332
NZL	0.301	0.227	0.229	0.233	0.129	0.138	0.127	0.176	0.142	0.245	0.163	0.213	0.197	0.152	0.369	0.234	0.126	0.186	0.116	0.118
POL	0.18	0.161	0.163	0.147	0.147	0.234	0.432	1	0.439	0.192	0.347	0.202	0.218	0.19	0.416	0.189	0.18	0.245	0.187	0.214
PRT	0.152	0.165	0.155	0.14	0.189	0.508	0.236	0.315	0.29	0.153	0.181	0.196	0.173	0.18	0.429	0.167	0.214	0.198	0.216	0.228
RUS	1	0.279	0.254	1	0.214	0.295	0.287	0.318	0.312	0.396	0.349	0.376	0.993	0.282	0.559	0.362	0.371	0.358	0.331	0.352
SVK	0.151	0.161	0.148	0.157	0.092	0.236	0.488	0.491	0.475	0.137	0.166	NA	0.206	0.18	0.42	0.191	0.139	0.176	0.204	0.212
SVN	0.238	0.173	0.16	0.218	0.137	0.208	0.39	0.449	0.387	0.132	0.219	0.279	0.184	0.193	0.401	0.149	0.128	0.17	0.179	0.206
SWE	0.239	0.191	0.178	0.186	0.193	0.329	0.198	0.183	0.197	0.167	0.229	0.305	0.237	0.256	0.404	0.217	0.208	0.188	0.242	0.251
TUR	0.303	0.218	0.204	0.232	0.113	1	0.147	0.475	0.173	0.243	0.381	0.176	0.197	0.19	0.508	0.444	0.173	0.197	0.18	0.186
USA	0.241	0.233	0.232	0.213	0.156	0.171	0.206	0.192	0.177	0.124	0.256	0.371	0.169	0.174	0.541	0.4	0.29	0.213	0.18	0.247
ZAF	0.341	0.219	0.222	0.259	0.168	0.216	0.181	0.247	0.194	0.301	0.38	0.211	0.254	0.133	0.466	0.458	0.236	0.297	0.16	0.18

Notes: Data are values of aggregate STRI in 2016 for each country-sector pair. The shades of green - from darkest to lightest - identify observations respectively in the 25th percentile (STRI≤0.1780903); between the 25th and the median (0.1780903≤STRI<0.226931); the median and the 75th percentile (0.226931≤STRI<0.3012036); and above the 75th percentile (STRI≥0.3012036). Darker tones reflect more open policy stances.

2.9 For a more detailed comparative assessment of the UK policy stance with respect to the EU27, the OECD and other countries covered in the database, Table 14 reports the aggregate STRI scores of all 44 countries across 20 sectors. Colours reflect the distribution of the STRI variable across all country-sector pairs. The four shades of green - from the darkest to the lightest - identify observations respectively below the 25th percentile; between the 25th and the median; between the median and the 75th percentile; above the 75th percentile. Darker tones reflect more open policy stances.[44]

Table 15: STRI rankings (OECD database, 2016)

	Logistics cargo-handling	Logistics customs brokerage	Logistics freight forwarding	Logistics storage and warehouse	Distribution	Accounting	Engineering	Legal	Architecture	Telecom	Broadcasting	Maritime transport	Rail freight transport	Road freight transport	Air transport	Courier	Insurance	Commercial banking	Computer	Construction
AUS	30	27	28	32	8	8	3	3	5	14	13	15	17	6	4	32	20	5	5	8
AUT	15	26	24	25	27	35	40	29	36	8	39	NA	23	31	16	17	32	26	34	27
BEL	28	33	33	31	38	37	31	22	39	24	25	27	32	35	35	27	28	33	40	36
BRA	40	39	35	39	32	22	26	21	26	37	41	30	30	27	44	42	39	42	37	25
CAN	18	11	10	12	39	18	14	4	19	36	30	5	3	7	22	31	26	15	13	28
CHE	29	34	39	37	34	27	37	28	33	31	38	NA	35	34	33	34	35	35	43	37
CHL	27	43	25	19	13	1	1	2	2	32	29	17	18	3	1	41	15	24	4	3
CHN	43	40	42	40	41	38	30	33	27	42	43	37	36	38	34	44	42	41	38	39
COL	33	32	34	30	21	20	21	7	16	35	44	21	31	21	2	26	36	37	32	30
CRI	41	41	41	41	37	36	33	9	28	30	24	28	38	44	3	23	24	28	35	31
CZE	10	16	15	14	5	15	32	24	31	23	4	NA	25	14	29	9	14	7	25	13
DEU	4	3	4	4	4	12	19	15	18	11	11	3	11	16	10	2	7	4	10	5
DNK	7	4	3	5	15	19	12	18	6	1	16	12	9	26	7	14	16	10	19	16
ESP	16	23	29	20	17	30	36	27	32	29	17	19	28	23	26	22	21	3	29	34
EST	17	20	17	10	12	7	17	35	41	22	10	20	21	29	17	15	3	14	26	15
FIN	19	19	19	18	35	28	24	11	20	26	22	25	33	36	23	20	34	31	33	26
FRA	13	5	5	15	26	40	7	39	15	21	21	13	15	32	19	5	10	19	14	18
GBR	8	6	6	9	9	31	22	5	29	15	8	10	8	17	9	11	11	8	16	10
GRC	25	29	26	23	36	23	23	37	21	9	20	33	22	30	25	16	30	27	30	35
HUN	21	22	20	27	25	24	34	40	30	16	18	NA	27	33	28	18	22	29	31	33
IDN	42	36	44	43	44	39	38	41	34	44	37	38	39	42	37	36	43	43	36	43
IND	39	38	38	38	43	42	35	42	44	43	34	36	42	39	39	43	44	44	42	38
IRL	14	12	11	13	19	10	8	14	13	4	12	8	7	19	15	7	2	2	9	9
ISL	38	42	43	42	42	34	41	38	38	38	40	31	NA	43	40	40	41	40	44	44
ISR	35	31	32	33	16	29	28	20	23	41	28	18	43	24	32	35	33	30	24	41
ITA	22	21	21	21	23	25	11	13	24	12	27	24	20	28	13	21	25	9	22	19
JPN	20	17	23	17	7	9	10	19	4	19	19	9	6	2	5	25	18	20	6	1
KOR	5	2	2	1	1	43	6	30	9	33	26	22	41	1	20	30	1	12	1	2
LTU	6	15	14	7	11	14	5	32	10	3	2	6	12	12	12	6	8	16	8	7
LUX	9	14	18	22	29	21	25	43	22	7	3	NA	24	10	30	10	13	23	27	17
LVA	1	1	1	2	2	2	2	1	1	18	1	1	2	5	14	3	4	1	2	6
MEX	36	44	37	36	28	4	16	6	12	25	42	32	34	25	8	38	29	38	18	23
NLD	12	10	8	11	20	5	13	16	7	17	9	4	1	9	11	1	12	13	21	11
NOR	34	37	40	35	40	32	29	23	25	39	31	23	37	41	42	28	38	34	39	40
NZL	31	28	30	29	10	3	4	8	3	28	5	16	14	8	6	24	5	17	3	4
POL	11	7	13	6	18	16	43	44	42	20	32	11	19	18	24	12	19	32	17	22
PRT	3	9	9	3	30	41	27	25	35	10	7	7	5	13	31	8	27	22	23	24
RUS	44	35	36	44	33	26	39	26	37	40	33	35	40	40	43	29	40	39	41	42
SVK	2	8	7	8	3	17	44	36	43	6	6	NA	16	15	27	13	9	11	20	21
SVN	23	13	12	26	14	11	42	31	40	5	14	26	10	22	18	4	6	6	11	20
SWE	24	18	16	16	31	33	18	10	17	13	15	29	26	37	21	19	23	18	28	32
TUR	32	24	22	28	6	44	9	34	8	27	36	2	13	20	38	37	17	21	12	14
USA	26	30	31	24	22	6	20	12	11	2	23	34	4	11	41	33	37	25	15	29
ZAF	37	25	27	34	24	13	15	17	14	34	35	14	29	4	36	39	31	36	7	12

Notes: the table reports sector-specific rankings of countries with respect to aggregate STRI in 2016. Grey cells identify all countries (rows) that for each sector (column) score as less restrictive than the UK.

2.10 **Table 15** complements the analysis by reporting for each column the respective sector-specific ranking of countries. All countries that score as less restrictive than the UK in a sector are identified

[44] Looking at the sample of 873 observations presented in the table the mean value of STRI is 0.261; the standard deviation is 0.139; the min and max values are 0.078 and 1 respectively.

by highlighting the respective cell in grey. The general inter-sectoral patterns highlighted above are confirmed with the advantage of precisely identifying those countries (among the OECD members + 6 covered in the database) that represent more accessible partners than the UK, as well as those that from the point of view of the UK export activities, appear as more difficult markets to contest. **Table 15** shows that, among the members of EU27, Germany belongs to the former group in the majority of services sectors together with Latvia and Lithuania. Denmark, Portugal and Slovakia also appear to have less restricted markets for many services sectors. However, many big EU27 economies such as France, Italy and Spain maintain significantly higher barriers than the UK.

Table 16: FDIRRI across European countries

	All services	Distribution	Transport	Surface	Maritime	Air	Hotels & restaurants	Media	Communications	Financial services	Banking	Insurance	Other finance	Business services	Legal	Accounting & audit	Architectural	Engineering	Real estate investment	Total FDI Index
LUX	0.007	0.000	0.075	0.000	0.000	0.225	0.000	0.000	0.000	0.002	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.004
NLD	0.008	0.000	0.083	0.000	0.023	0.225	0.000	0.000	0.000	0.002	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.015
CZE	0.012	0.000	0.075	0.000	0.000	0.225	0.000	0.000	0.000	0.010	0.000	0.000	0.030	0.000	0.000	0.000	0.000	0.000	0.023	0.010
PRT	0.012	0.000	0.083	0.000	0.023	0.225	0.002	0.000	0.000	0.017	0.023	0.023	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.007
SVN	0.015	0.000	0.150	0.000	0.225	0.225	0.000	0.000	0.000	0.002	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.010	0.007
ROU	0.016	0.000	0.167	0.000	0.000	0.500	0.000	0.000	0.000	0.002	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.008
FIN	0.019	0.009	0.092	0.009	0.032	0.234	0.009	0.009	0.009	0.011	0.009	0.009	0.014	0.046	0.099	0.065	0.009	0.009	0.000	0.019
DEU	0.022	0.000	0.200	0.000	0.275	0.325	0.000	0.025	0.000	0.005	0.011	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.023
EST	0.028	0.000	0.150	0.000	0.225	0.225	0.000	0.000	0.000	0.002	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.150	0.018
FRA	0.033	0.000	0.150	0.000	0.225	0.225	0.000	0.048	0.000	0.054	0.045	0.068	0.050	0.003	0.010	0.000	0.000	0.000	0.000	0.045
GRC	0.035	0.000	0.150	0.000	0.225	0.225	0.005	0.113	0.000	0.020	0.056	0.000	0.005	0.056	0.000	0.225	0.000	0.000	0.000	0.032
LVA	0.036	0.009	0.084	0.009	0.009	0.234	0.009	0.009	0.009	0.011	0.009	0.009	0.014	0.009	0.009	0.009	0.009	0.009	0.225	0.026
IRL	0.037	0.000	0.125	0.000	0.150	0.225	0.000	0.000	0.000	0.009	0.000	0.023	0.005	0.000	0.000	0.000	0.000	0.000	0.250	0.043
ESP	0.038	0.000	0.075	0.000	0.000	0.225	0.000	0.225	0.000	0.002	0.000	0.000	0.005	0.113	0.450	0.000	0.000	0.000	0.000	0.021
LTU	0.039	0.005	0.280	0.005	0.230	0.605	0.005	0.005	0.005	0.006	0.005	0.005	0.009	0.005	0.005	0.005	0.005	0.005	0.105	0.034
DNK	0.045	0.000	0.083	0.000	0.023	0.225	0.000	0.000	0.000	0.002	0.000	0.000	0.005	0.363	1.000	0.450	0.000	0.000	0.050	0.033
GBR	0.050	0.023	0.114	0.023	0.073	0.248	0.023	0.248	0.023	0.024	0.023	0.023	0.027	0.023	0.023	0.023	0.023	0.023	0.000	0.061
BEL	0.052	0.023	0.114	0.023	0.073	0.248	0.029	0.023	0.023	0.024	0.023	0.023	0.027	0.248	0.473	0.473	0.023	0.023	0.023	0.040
HUN	0.057	0.000	0.167	0.000	0.275	0.225	0.000	0.000	0.000	0.005	0.000	0.000	0.016	0.000	0.000	0.000	0.000	0.000	0.450	0.029
ITA	0.057	0.000	0.200	0.000	0.300	0.300	0.007	0.363	0.000	0.018	0.000	0.000	0.055	0.000	0.000	0.000	0.000	0.000	0.000	0.052
AUT	0.066	0.000	0.182	0.050	0.225	0.270	0.015	0.000	0.000	0.002	0.000	0.000	0.005	0.322	0.225	0.613	0.225	0.225	0.200	0.106
SWE	0.068	0.000	0.292	0.200	0.250	0.425	0.000	0.200	0.200	0.002	0.000	0.000	0.005	0.051	0.090	0.113	0.000	0.000	0.000	0.059
SVK	0.098	0.000	0.075	0.000	0.000	0.225	0.000	0.000	0.000	0.002	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	1.000	0.049
POL	0.125	0.000	0.092	0.000	0.050	0.225	0.000	0.298	0.075	0.003	0.000	0.000	0.010	0.000	0.000	0.000	0.000	0.000	0.900	0.072

Notes: the table presents values for FDIRRI in the UK and those EU27 countries covered in the data for the latest available year (2015). The first column (highlighted in green) presents the value of FDIRRI aggregated across all services sectors, followed by sector services specific scores (dark grey columns denote services aggregates and are followed by the their respective individual services components in light grey: transport aggregating surface, maritime and air; financial services aggregating banking insurance and other finance; and business services aggregating legal, accounting & audit, architecture and engineering). The last column (highlighted in orange) reports the FDIRRI score across all economic sectors. Countries are sorted from the least to the most restrictive according to the all services aggregate (values in column 1).

2.11 Finally, this section offers a snapshot on policy measures that specifically target Mode 3 services trade (FDI). These include equity restrictions, screening and approval requirements, and restrictions on key foreign personnel. Such policies are coded by the OECD and aggregated by sector in the FDI Regulatory Restrictiveness index (FDIRRI). Table 16 presents values for FDIRRI in the UK and those EU27 countries covered in the data for the latest available year (2015). The first column (green) presents the value of FDIRRI aggregated across all services sectors, followed by sector services specific scores (dark grey columns denote services aggregates and are followed by the their respective individual services components in light grey: transport aggregating surface, maritime and air; financial services aggregating banking insurance and other finance; and business services aggregating legal, accounting & audit, architecture and engineering). The last column reports the FDIRRI score across all economic sectors. Countries are sorted from the less to the most restrictive according to the all services aggregate (values in column 1).

3 *Economic impact of services trade liberalization*

3.1 Services are very heterogeneous. Some satisfy final demand – e.g., recreation, travel, tourism services – but many are intermediate inputs into production. Services comprise a substantial share of all inputs used by firms. The cost, quality and variety of services available to firms therefore are an important determinant of their competitiveness. Sector-specific restrictive trade policies that impact on the degree of competition on services markets, and thus mark-ups and sectoral efficiency, will affect negatively downstream sectors as well as the performance of protected services sectors themselves (Francois and Hoekman 2010). The empirical literature on international trade policy offers a number of studies that evaluate the economic effects of services trade liberalization on downstream sectors that use services as intermediate inputs. Many of these works consists of country case studies featuring firm level data (see for instance Arnold et al., 2011 and 2016), while others present cross country evidence based on the available multi-country policy datasets (see Hoekman and Shepherd, 2017 and Beverelli et al., 2017).

3.2 This section presents a quantification of results drawn from the latter type of studies. The focus is on the dimension of services trade policy that matters for downstream economic activity. This is just one, albeit important, way such policies impact on economic performance of countries. More precisely, Table 17 reports the estimated percentage change in labour productivity of 18 UK manufacturing sectors following a hypothesized policy reform consisting of the complete removal of all barriers to Mode 3 services trade (FDI) in four services sectors which are common inputs into manufacturing production: finance, transport, communications and professional services.

Table 17: Economic impact of services trade liberalization

Manufacturing sector (Isic Rev 3 code)	Impact (% change in labour productivity)
Food products, beverages and tobacco (15-16)	39.33
Textiles, textile products, leather and footwear (17-19)	28.41
Wood and products of wood and cork (20)	24.98
Pulp, paper, paper products, printing and publishing (21-22)	34.08
Coke, refined petroleum products and nuclear fuel (23)	12.27
Chemicals and chemical products (24)	37.48
Rubber and plastics products (25)	26.96
Other non-metallic mineral products (26)	73.08
Basic metals (27)	47.74
Fabricated metal products except machinery and equipment (28)	24.31
Machinery and equipment n.e.c (29)	26.81
Office, accounting and computing machinery (30)	28.69
Electrical machinery and apparatus n.e.c (31)	24.60
Radio, television and communication equipment (32)	28.69
Medical, precision and optical instruments (33)	28.69
Motor vehicles, trailers and semi-trailers (34)	15.46
Other transport equipment (35)	23.52
Manufacturing n.e.c; recycling (36-37)	30.18

Notes: "Impact" refers to the estimated percentage change in sectoral labour productivity of removing all barriers to Mode 3 services trade in financial, transport, communication and professional services estimated according to the methodology presented in Beverelli et al. (2017). All estimates are statistically significant at the 1% level. Services trade policies from the World Bank Services Trade Restrictiveness Database. Labour productivity (output per worker) from UNIDO industrial statistics database. Sectors based on ISIC 2-digit classification Rev. 3.

3.3 The same exercise for other European countries but for a smaller set of services is conducted in Fiorini and Hoekman (2017a) based on the empirical methodology introduced by Beverelli et al. (2017). The main source of information for services policy is the World Bank Services Trade Restrictiveness Database (STRD), covering 103 countries for the year 2007 (Borchert et al., 2014). The sign and the magnitude of the estimated effects are suggestive of the positive and sizable economic effect of services trade liberalization.

3.4 Several considerations are in order for a cautious interpretation of the presented quantification results. First, complete removal of all FDI restrictions is an example of liberalization reform that may not be achievable in practice. This might be true even though the producer services used in the analysis are in sectors where full liberalization should in principle be possible. Practical difficulties to implement such an extreme policy might stem from political economy forces such as lobbying opposition or stakeholders' mobilization against the reform. Second, the methodology is partial equilibrium in nature, limiting the focus to sector-specific productivity effects (estimation of the overall net GDP effects from removing services trade restrictions is precluded). This aspect implies that the magnitude of the results for any given sector will be upper bounds, as no account is taken of factor demand or investment diversion effects.

4 *Mobility Barriers*[45]

4.1 The analysis of UK services trade policy highlights among other things a relatively more restrictive policy stance toward people mobility. To further investigate this dimension what follows presents a descriptive assessment of a Mobility Barrier Index (MBI) that captures mobility restrictions for people constructed as part of The European Visa Database project.[46] It covers 8 years from 2005 to 2012 for up to 199 origin countries. The UK is covered as a destination up to 2008. The MBI allows analysis of visa requirements, visa issuing practices and consular services. The index has an ordinal scale from 0 to 3 (0 = no barriers, 1 = low barriers, 2 = medium barriers, 3 = high barriers). It has been constructed in the following way: if no visa requirement is in force a score of 0 is assigned. If a receiving country does not provide visa-related consular services in a sending state, then a score of 2 is assigned. If a receiving state relies on the consular services of another for visa-issuing, then they are assumed to have the similar practice. If the visa refusal rate was below 3% a score of 1 was assigned, between 3% and 20% a score of 2, and above 20% a score of 3. This grouping is based on a quantitative analysis of the total data-set: group 1 is approximately the first quartile; group 2 the second and third; group 3 the fourth and last. If the number of visa applications is very low (below 20% of a modelling estimate) compared to the population size of the sending and receiving country - and the travel distance between them - the score is increased by one. This is done to consider that receiving countries can put into place barriers that prevent people from lodging applications.[47]

4.2 **Figure 23** shows UK restrictiveness toward sending countries across income groups.[48] The UK is highly open toward high income countries (HICs). Openness appears as a clear positive function of the average per capita income across countries in the 4 income groups used in the figure. Barriers imposed by the UK are close to maximum restrictiveness when looking at low income countries as the origin economies. Comparing these figures with the average EU27 country covered in the database the UK emerges as relatively more open than the EU27 toward all income groups with the exception of the LICs (see **Figure 24**). The time dimension in both figures suggests a relatively stable policy stance in this domain from 2005 to 2008.

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[45] This section was prepared by Omar Bamieh (EUI).
[46] For more information refer to http://www.mogenshobolth.dk
[47] For more information on this estimation see the research note, http://www.lse.ac.uk/government/research/resgroups/MSU/documents/workingPapers/WP_2012_03.pdf
[48] Income groups follow the World Bank 2016 categorization. Income group specific aggregate scores are computed using simple averages across countries.

Figure 23: Mobility barriers imposed by the UK across sending countries

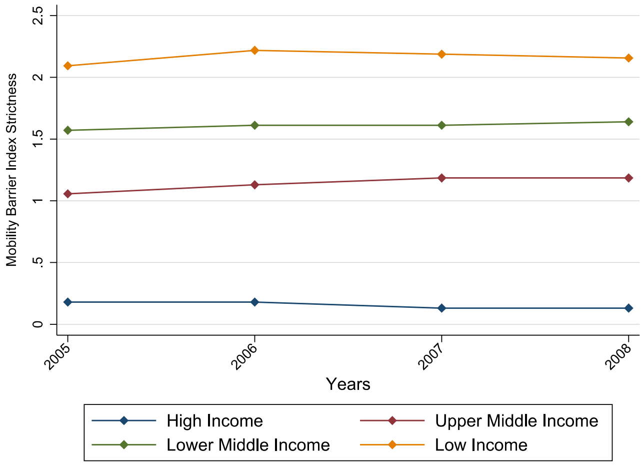
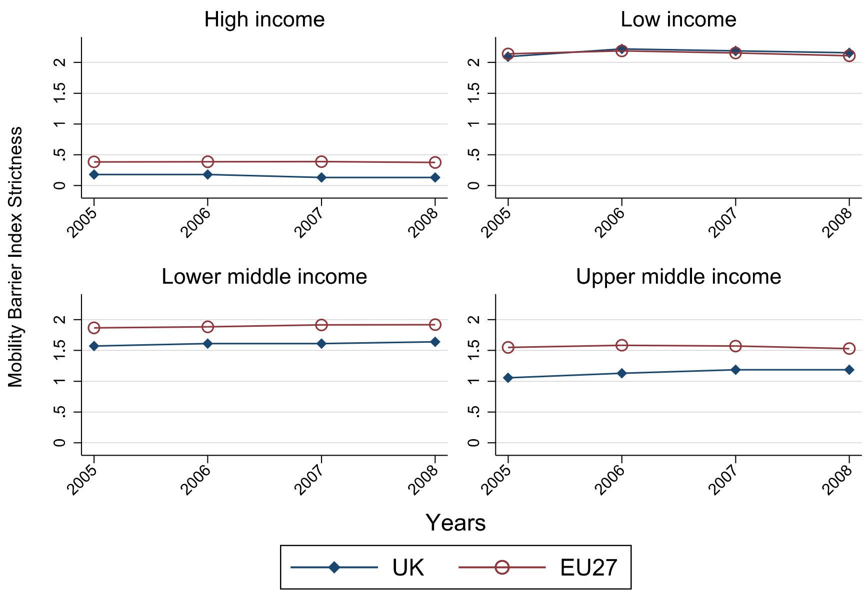


Figure 24: Mobility restrictions imposed by the UK and EU27



4.3 More precise assessment of bilateral policy stances is given in **Table 18** where the scores of the 2008 MBI are reported for origin-destination pairs. All origin countries are listed as rows while selected destinations are listed as columns. Origin countries are grouped according to the 4 WB income categories, from high income (Panel A) to low income (Panel D). The last column reports average scores across covered EU27 destination countries. Colours reflect the 4 possible values taken by the MBI, with darker green identifying less restrictive policies imposed by the destination on the origin. Table 18 confirms the patterns highlighted above. It also allows one to identify countries toward which the UK imposes relatively more restrictive mobility policies. Two examples from Panel D are Malawi and Uganda, which confront the highest mobility barriers in the UK (and the US).

Table 18: Mobility Barrier Index across destination-origin pairs

	BEL	BGR	CZE	DEU	DNK	ESP	EST	FIN	FRA	GRC	HUN	ITA	LUX	LVA	MLT	NLD	POL	PRT	ROM	SVK	SVN	SWE	ISL	NOR	GBR	USA	EU27
Panel A: High income origin countries																											
AND	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
ARE	2	2	2	1	2	2	2	2	1	1	2	1	2	1	2	2	2	2	1	2	1	3	2	2	2	2	1.76
ATG	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	3	2.00
AUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
AUT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
BEL	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
BHR	1	2	2	1	1	1	2	1	1	1	2	1	1	2	1	1	2	1	2	2	1	1	1	1	1	2	1.33
BHS	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	2	2.00
BRB	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	2	2.00
BRN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
CAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
CHE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
CHL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.00
CYP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.00
CZE	0	0	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.00
DEU	0	0	0	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
DNK	0	0	0	0	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
ESP	0	0	0	0	0	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
EST	0	0	0	0	0	0	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.00
FIN	0	0	0	0	0	0	0	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
FRA	0	0	0	0	0	0	0	0	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
GBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	0	0.00
GRC	0	0	0	0	0	0	0	0	0	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.00
HKG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.00
HRV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.00
HUN	0	0	0	0	0	0	0	0	0	0	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.00
IRL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
ISL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	0	0	0	0.00
ISR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.00
ITA	0	0	0	0	0	0	0	0	0	0	0	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
JPN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
KNA	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	3	2.00
KOR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.00
KWT	1	1	2	1	NA	1	2	1	1	1	1	1	1	1	NA	1	2	1	1	1	NA	1	2	1	1	2	1.17
LIE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
LTU	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.00
LUX	0	0	0	0	0	0	0	0	0	0	0	0	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
LVA	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	0	0	0	0	0	0	0	0	0	0	0	2	0.00
MAC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.00
MCO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
MLT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	0	0	0	0	0	0	0	0	0	0	1	0.00
NLD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	0	0	0	0	0	0	0	0	0	0	0.00
NOR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	0	0	0.00
NRU	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	3	2.00
NZL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
OMN	1	2	2	1	NA	1	2	NA	1	1	NA	1	1	2	NA	1	2	1	2	2	NA	NA	2	1	1	1	1.40
POL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	0	0	0	0	0	0	0	0	2	0.00
PRT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	0	0	0	0	0	0	0	0	0.00
QAT	3	2	2	1	1	2	2	1	1	1	2	1	3	2	1	1	3	1	1	2	1	1	1	1	1	1	1.62
ROM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	0	0	0	0	0	0	3	0.00
SAU	2	2	2	2	1	2	2	1	1	1	3	1	2	2	2	2	2	2	2	2	NA	1	1	2	1	2	1.75
SGP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
SMR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
SVK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	0	0	0	0	0	1	0.00
SVN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	0	0	0	0	0	0.00
SWE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	0	0	0	0	0.00
SYC	1	2	2	1	1	1	2	2	1	1	2	1	1	2	2	1	2	1	2	2	2	1	2	1	0	2	1.48
TTO	1	2	2	1	1	1	1	1	1	2	2	1	1	2	2	1	2	1	2	2	2	1	1	1	0	3	1.43
TWN	1	2	1	1	1	1	2	2	1	2	1	1	2	2	2	1	1	2	2	2	2	1	2	2	1	2	1.48
URY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.00
USA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	0.00
VAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.00
	BEL	BGR	CZE	DEU	DNK	ESP	EST	FIN	FRA	GRC	HUN	ITA	LUX	LVA	MLT	NLD	POL	PRT	ROM	SVK	SVN	SWE	ISL	NOR	GBR	USA	EU27

Panel B: Upper middle income origin countries

	BEL	BGR	CZE	DEU	DNK	ESP	EST	FIN	FRA	GRC	HUN	ITA	LUX	LVA	MLT	NLD	POL	PRT	ROM	SVK	SVN	SWE	ISL	NOR	GBR	USA	EU27
AGO	3	3	3	2	2	1	2	2	2	1	2	2	3	2	2	2	3	1	2	2	3	3	1	1	2	2	2.19
ALB	2	1	3	2	2	2	1	2	2	3	1	2	2	1	NA	2	3	2	2	2	1	2	2	2	3	3	1.90
ARG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.00
AZE	2	1	2	2	2	2	2	2	2	1	2	1	2	2	1	2	2	2	2	2	2	2	2	2	2	2	1.81
BGR	0	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.00
BIH	1	1	1	2	2	1	1	2	1	1	1	1	1	2	NA	1	2	2	2	1	2	2	2	1	1	3	1.40
BLR	1	1	1	1	1	2	1	1	2	2	1	1	1	1	1	1	1	2	1	1	1	2	2	2	2	3	1.24
BLZ	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	3	2.00
BRA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.00
BWA	1	2	2	2	2	1	2	2	1	1	2	1	1	2	2	1	2	2	2	2	1	2	2	2	0	2	1.62
CHN	2	2	2	2	1	2	3	1	2	2	2	2	2	3	3	2	2	2	2	2	2	1	2	1	2	2	2.00
COL	2	2	3	2	3	2	2	2	2	2	2	2	2	2	NA	2	3	3	3	2	NA	2	2	2	1	3	2.21
CRI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.00
CUB	2	2	3	2	3	2	2	2	1	2	1	3	2	1	2	2	3	3	3	2	1	2	2	1	2	3	2.05
DMA	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	3	2.00
DOM	3	2	2	3	3	3	3	3	3	3	2	3	3	2	3	3	2	3	2	2	3	3	3	3	2	3	2.71
DZA	3	3	3	3	2	3	2	2	3	3	3	2	3	3	2	3	3	3	3	2	NA	3	2	3	3	2	2.70
ECU	2	2	2	2	2	3	2	2	2	3	2	2	2	2	3	2	2	3	2	2	2	2	2	2	2	3	2.19
FJI	1	2	2	1	2	1	2	2	1	1	2	1	1	2	2	1	2	1	2	2	2	1	1	1	2	3	1.52
GAB	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	3	1.95
GEO	2	2	2	2	2	2	3	2	2	2	3	2	2	3	2	2	2	2	2	2	2	3	2	2	2	3	2.19
GNQ	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1.95
GRD	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	3	2.00
GUY	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2.00
IRN	3	1	3	2	3	3	3	3	2	1	2	1	3	2	NA	2	3	3	3	3	3	3	3	3	3	3	2.45
IRQ	2	2	2	2	2	2	2	2	2	2	2	1	2	2	1	2	3	1	3	2	1	2	2	2	2	3	1.86
JAM	1	2	2	2	2	1	2	2	1	1	2	2	2	2	2	2	2	1	2	2	2	2	2	1	3	3	1.76
JOR	2	1	3	2	3	2	2	2	1	1	2	1	2	2	1	2	3	2	2	2	NA	2	2	2	2	3	1.90
KAZ	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1.10
LBN	2	2	1	2	3	2	2	NA	1	2	2	1	2	2	1	2	2	2	2	2	2	1	1	1	2	3	1.80
LBY	2	3	3	1	1	2	2	1	2	2	3	1	2	2	2	2	2	2	3	1	NA	1	2	1	2	3	1.85
LCA	1	2	2	1	1	1	2	2	1	1	2	1	1	2	2	1	2	1	2	2	2	1	2	2	0	3	1.48
MDV	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	2	2.00
MEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.00
MHL	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	0	2.00
MKD	2	1	2	2	2	2	1	2	2	1	1	2	2	2	2	2	1	2	1	2	2	3	2	1	2	3	1.81
MNE	1	1	2	2	1	2	1	2	1	1	1	1	1	2	1	1	1	2	2	2	1	2	2	2	2	3	1.38
MUS	1	2	2	1	1	1	2	2	1	1	2	1	1	2	2	1	2	1	2	2	2	1	1	1	0	2	1.48
MYS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.00
NAM	1	2	2	1	1	1	1	1	2	1	2	2	1	2	2	1	2	1	2	2	2	1	1	1	0	2	1.48
PAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.00
PER	2	2	2	2	3	2	2	2	2	3	2	2	2	2	NA	2	2	2	2	2	NA	2	2	2	2	3	2.11
PLW	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	3	2.00
PRY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.00
RUS	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1.10
SRB	2	1	1	2	2	1	2	2	1	1	3	1	2	2	1	2	1	1	1	1	1	2	2	2	1	2	1.52
SUR	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1.95
THA	3	1	1	2	2	1	2	2	1	1	1	1	2	1	NA	2	1	1	1	2	NA	3	2	2	2	2	1.58
TKM	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	3	2.05
TUR	2	1	1	2	2	1	2	2	1	1	1	1	2	2	1	2	2	1	1	1	2	2	2	3	1	2	1.52
TUV	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	3	2.00
VCT	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	3	2.00
VEN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.00
ZAF	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1.05

Panel C: Lower middle income origin countries

	BEL	BGR	CZE	DEU	DNK	ESP	EST	FIN	FRA	GRC	HUN	ITA	LUX	LVA	MLT	NLD	POL	PRT	ROM	SVK	SVN	SWE	ISL	NOR	GBR	USA	EU27
ARM	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	1.95
BGD	3	2	2	2	3	3	2	2	3	2	2	2	3	2	2	3	2	3	2	2	3	2	2	3	3	3	2.38
BOL	3	2	2	1	1	3	1	3	2	3	2	3	3	2	3	3	2	3	2	2	3	1	1	1	0	3	2.29
BTN	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2.00
CIV	3	2	2	3	3	2	3	2	3	3	2	3	3	2	2	3	2	2	2	2	3	2	2	3	2	3	2.48
CMR	3	2	2	3	3	3	3	2	3	3	2	3	3	2	2	3	2	3	2	2	2	3	2	3	3	3	2.57
COG	3	2	2	2	2	2	2	2	2	2	2	2	3	2	2	3	2	2	2	2	2	2	2	2	2	3	2.14
CPV	3	2	2	3	2	3	2	2	3	2	2	2	3	2	2	3	2	2	2	2	2	3	2	2	2	3	2.33
DJI	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2.00
EGY	2	3	2	2	1	2	2	2	2	2	3	2	2	2	2	2	3	2	3	3	2	2	1	2	2	3	2.14
FSM	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	0	2.00
GHA	3	3	3	3	2	3	3	2	3	3	2	3	3	2	3	3	2	3	2	2	2	2	2	2	3	3	2.62
GTM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.00
HND	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.00
IDN	2	1	2	1	1	1	1	1	1	1	2	1	2	1	NA	2	1	1	2	2	NA	1	1	1	1	3	1.32
IND	2	3	2	1	1	2	3	1	2	2	2	1	2	2	3	2	2	2	2	3	3	2	1	1	2	3	2.05
KEN	2	2	3	2	2	2	2	2	1	2	3	1	2	3	NA	2	3	3	2	3	NA	2	2	2	3	3	2.21
KGZ	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2.00
KHM	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	3	2.05
KIR	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	3	2.00
KSV	2	2	2	3	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2.10
LAO	1	2	2	2	2	2	2	2	1	2	2	2	1	2	2	1	2	2	2	2	2	1	1	1	2	3	1.76
LKA	3	2	2	3	3	3	3	2	3	2	2	2	3	3	2	3	2	3	2	2	3	2	3	3	3	3	2.52
LSO	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	3	2.00
MAR	3	3	3	3	3	2	2	3	2	3	3	2	3	3	2	3	3	3	3	2	3	2	2	3	2	3	2.67
MDA	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	1	2	2	2	2	2	3	3	1.90
MMR	3	2	2	3	2	1	2	3	1	3	2	2	3	2	2	3	2	1	2	2	2	2	3	3	2	3	2.14
MNG	2	1	3	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2.05
MRT	2	2	2	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2.10
NGA	3	3	3	3	3	3	2	3	2	3	3	2	3	2	2	3	2	2	3	3	2	3	3	3	3	3	2.62
NIC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.00
PAK	3	3	3	3	3	3	3	3	3	3	3	2	3	3	2	3	3	3	3	2	3	3	3	3	3	3	2.86
PHL	3	2	2	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	3	2	3	2	2	2	2	3	2.14
PNG	1	2	2	1	2	1	2	2	1	1	2	1	1	2	2	1	2	1	2	2	1	1	1	1	0	2	1.48
SDN	3	3	2	3	3	1	3	2	1	3	2	2	3	2	2	3	2	1	3	2	2	1	1	1	3	3	2.19
SLB	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	3	2.00
SLV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.00
STP	1	2	2	1	2	1	2	2	1	1	2	1	1	2	2	1	2	1	2	2	1	2	2	2	2	3	1.52
SWZ	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	3	2.00
SYR	3	3	2	2	3	2	3	3	2	2	3	2	3	2	2	3	3	2	3	3	NA	3	3	3	2	3	2.55
TJK	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2.00
TON	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	3	2.00
TUN	3	2	3	2	2	2	2	2	2	2	3	3	3	2	2	3	3	1	2	2	NA	2	2	2	2	3	2.30
UKR	2	1	1	1	2	2	1	1	1	2	1	2	2	2	2	2	1	1	1	1	2	1	1	1	2	3	1.48
UZB	1	2	2	2	2	2	2	2	1	2	2	2	1	2	2	1	2	1	2	2	2	2	1	2	3	3	1.76
VNM	2	2	2	2	2	2	2	2	2	3	1	1	2	1	2	2	2	2	2	2	2	2	2	2	2	3	1.90
VUT	1	2	2	1	2	1	2	2	1	1	2	1	1	2	2	1	2	1	2	2	2	2	2	2	0	3	1.57
WSM	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	3	2.00
YEM	3	3	3	2	2	3	2	3	2	2	2	2	3	2	2	3	3	2	2	2	2	2	2	3	3	3	2.38
ZMB	2	2	2	1	1	1	2	1	1	1	2	1	2	2	1	2	2	1	2	2	1	1	1	1	2	3	1.48

Panel D: Low income origin countries

	BEL	BGR	CZE	DEU	DNK	ESP	EST	FIN	FRA	GRC	HUN	ITA	LUX	LVA	MLT	NLD	POL	PRT	ROM	SVK	SVN	SWE	ISL	NOR	GBR	USA	EU27
AFG	3	3	2	3	2	3	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	3	2.24
BDI	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2.00
BEN	3	2	2	2	3	2	2	3	2	2	2	2	3	2	2	3	2	2	2	2	3	3	3	3	2	3	2.33
BFA	2	2	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2.05
CAF	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2.00
COD	3	2	3	3	3	3	2	3	3	3	2	3	3	2	2	3	2	2	2	2	2	3	3	3	2	3	2.57
COM	3	2	2	3	2	3	2	2	3	3	2	3	3	2	2	3	2	3	2	2	2	2	2	2	2	3	2.43
ERI	3	2	2	3	3	3	2	3	3	3	2	2	3	2	2	3	2	3	2	2	3	3	3	3	2	3	2.57
ETH	2	2	3	2	3	3	2	3	2	3	NA	2	2	2	NA	2	3	3	3	2	2	3	3	3	3	3	2.42
GIN	3	2	2	3	2	3	2	2	3	3	2	3	2	2	2	2	2	3	2	2	3	2	2	2	2	3	2.38
GMB	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	2.00
GNB	2	2	2	2	2	3	2	3	2	3	2	2	2	2	2	2	2	3	2	2	3	3	2	2	2	3	2.29
HTI	3	2	2	2	3	3	2	2	3	3	2	3	3	2	3	3	2	3	2	2	2	3	2	3	2	3	2.52
LBR	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2.00
MDG	1	2	2	1	1	2	1	2	2	2	2	2	1	2	2	1	2	2	2	2	2	1	2	1	2	3	1.67
MLI	3	2	2	3	3	3	2	2	3	3	2	3	3	2	2	3	2	3	2	2	2	3	2	3	2	3	2.52
MOZ	1	2	2	2	1	1	2	1	1	1	2	1	1	2	1	1	2	1	2	2	1	1	1	1	2	3	1.38
MWI	1	2	2	1	1	1	2	1	1	1	2	1	1	2	2	1	2	1	2	2	2	1	1	1	3	3	1.43
NER	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2.00
NPL	3	2	2	3	2	2	2	3	2	2	2	2	3	2	2	3	2	2	2	2	2	2	2	2	3	3	2.24
PRK	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2.00
PSE	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2.00
RWA	3	2	2	2	2	2	2	3	3	3	2	3	3	2	2	3	2	3	2	2	3	3	2	2	2	3	2.48
SEN	3	2	2	3	3	3	2	3	3	NA	NA	3	3	2	NA	3	2	3	3	2	NA	3	3	3	3	3	2.65
SLE	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	2.00
SOM	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2.00
TCD	1	2	2	1	1	1	2	2	1	1	2	1	1	2	2	1	2	2	2	2	1	2	2	2	2	3	1.52
TGO	2	2	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2.05
TLS	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	3	2.00
TZA	2	2	2	2	2	3	2	2	2	2	2	1	2	2	1	2	2	3	2	2	2	1	1	2	2	3	1.95
UGA	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	2.00
ZWE	2	3	2	1	2	3	2	2	1	2	NA	2	2	2	NA	1	2	2	3	2	1	3	1	1	2	3	1.95

Notes: the table reports values of MBI in 2008. Colours reflect the 4 possible values of the index. Darker green identifies more open regimes. "NA" identifies both not available as well as not applicable observations.

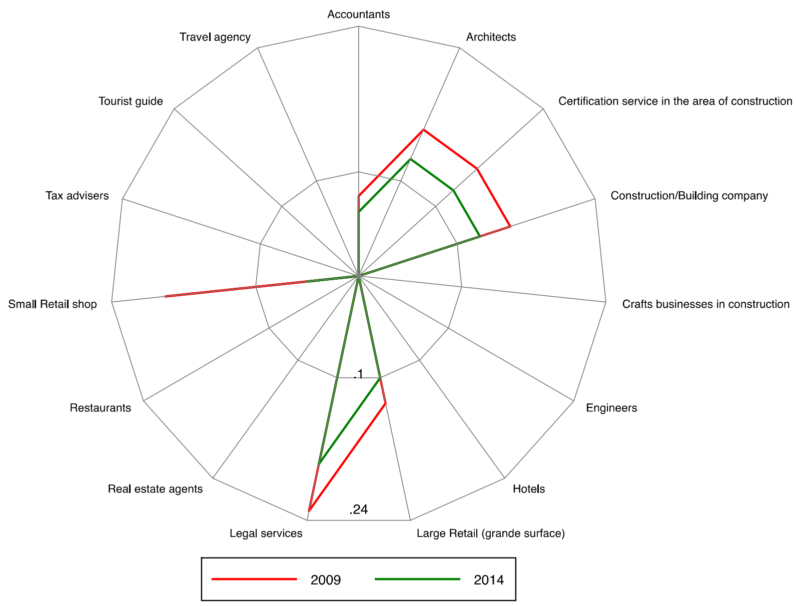
5 *The UK and the 2006 Services Directive*

5.1 This section offers descriptive analysis to assess the degree of implementation of the 2006 EU Services Directive (SD) by the UK and how this compares to EU-27 member states. We use the data from Monteagudo et al. (2012). The database has been constructed by identifying a set of key sector-specific requirements from the 2006 SD and by measuring how much EU Member States comply with these requirements by the transposition deadline (2009) and in two subsequent periods (2012 and 2014). The data map 15 services sectors including relevant producer services such as legal, accounting, engineering services.

5.2 The key variable in the raw data captures the distance between the SD requirement and the prevailing policy regime at the year-country-sector level. Such distance variable is coded at the year-country-sector-requirement level and varies between 0 and 1, with 0 meaning that the barrier identified in the corresponding requirement is absent in the corresponding year-country-sector triple (0 distance from the SD requirement) and 1 meaning that the barrier is fully active (maximum distance from the SD requirement). Intermediate values of 0.8 and 0.2 have been used to account for partial compliance with SD requirements.

5.3 Following Monteagudo et al. (2012) the present analysis aggregates the raw data at the sector-country-year level taking a simple average over requirements. The database covers up to 20 requirements, drawn from SD Articles 9, 14, 15, 16 and 25 (we refer the reader to Monteagudo et al., 2012 for a complete descriptions of individual requirements). Figure 25 shows how the UK performed at the end of the transposition period (2006-2009) with full compliance with SD requirements in 8 sectors out of the 15 mapped in the data. Moreover, whenever barriers identified as such by the SD existed in 2009, the UK has made progress to partially remove them in the subsequent 5 years. Surprisingly, the sector where UK policies appear most distant from the SD requirements is that of legal services where, according to the OECD STRI scores, the UK is nonetheless far less restrictive than the average EU27 country. Looking in details at individual requirements for legal services the data reveals how the UK maintains barriers in the form of legal form requirements (SD article 15.2b), shareholding requirements (SD article 15.2c) and prior authorization to access the activity (SD article 9).

Figure 25: UK sectoral distance from 2006 SD requirements



5.4 **Table 19** reports country-sector specific values of the variable capturing distance to the 2006 SD (on average across requirements), with darker tones of green denoting lower distance. The UK emerges as one of the countries more closely complying with the SD requirements. In legal services it is actually the 6th best country in terms of distance to the SD. Moreover Table 19 highlights three sectors where many EU27 countries (more than 10) are outperforming the UK in terms of distance to SD requirements. These sectors are architectural services, certification services in the area of construction and construction/building services.

Table 19: Distance to 2006 SD requirements across countries and sectors

	Accountants	Architects	Certification service in the area of construction	Construction/Building company	Crafts businesses in construction	Engineers	Hotels	Large Retail (grande surface)	Legal services	Real estate agents	Restaurants	Small Retail shop	Tax advisers	Tourist guide	Travel agency
AT	0.13	0.22	0.14	0.06	0.06	0.14	0.06	0.17	0.29	0.13	0.14	0.28	0.27	0.08	0.00
BE	0.29	0.29	0.20	0.14	0.14	0.14	0.06	0.21	0.37	0.22	0.06	0.26	0.37	0.14	0.14
BG	0.05	0.38	0.15	0.29	0.20	0.38	0.06	0.16	0.39	0.05	0.06	0.16	0.05	0.09	0.22
CY	0.12	0.17	0.00	0.12	0.06	0.12	0.06	0.05	0.37	0.12	0.06	0.05	0.06	0.22	0.25
CZ	0.00	0.35	0.00	0.00	0.06	0.12	0.06	0.10	0.25	0.00	0.06	0.05	0.12	0.06	0.14
DE	0.35	0.45	0.54	0.00	0.06	0.31	0.00	0.10	0.42	0.06	0.06	0.05	0.53	0.00	0.00
DK	0.16	0.00	0.11	0.06	0.15	0.00	0.00	0.13	0.27	0.21	0.00	0.08	0.00	0.00	0.05
EE	0.06	0.00	0.14	0.09	0.09	0.00	0.00	0.08	0.25	0.00	0.00	0.08	0.00	0.05	0.05
ES	0.09	0.09	0.00	0.00	0.12	0.09	0.00	0.13	0.14	0.12	0.14	0.04	0.00	0.09	0.15
FI	0.12	0.00	0.00	0.09	0.09	0.00	0.00	0.16	0.09	0.09	0.00	0.16	0.00	0.09	0.09
FR	0.20	0.25	0.14	0.11	0.14	0.00	0.00	0.12	0.25	0.09	0.06	0.08	0.20	0.05	0.14
GR	0.06	0.06	0.00	0.12	0.12	0.06	0.06	0.09	0.29	0.00	0.06	0.09	0.06	0.00	0.11
HU	0.12	0.12	0.12	0.06	0.06	0.12	0.06	0.23	0.42	0.12	0.06	0.18	0.18	0.00	0.12
IE	0.00	0.06	0.00	0.15	0.00	0.00	0.00	0.16	0.31	0.00	0.08	0.17	0.00	0.18	0.08
IT	0.23	0.23	0.00	0.00	0.13	0.23	0.00	0.25	0.33	0.09	0.11	0.09	0.23	0.11	0.06
LT	0.00	0.09	0.11	0.16	0.09	0.09	0.00	0.15	0.26	0.00	0.00	0.20	0.05	0.21	0.15
LU	0.13	0.27	0.40	0.11	0.11	0.13	0.06	0.14	0.35	0.13	0.06	0.14	0.20	0.00	0.13
LV	0.00	0.09	0.09	0.09	0.09	0.09	0.00	0.08	0.09	0.05	0.00	0.08	0.05	0.15	0.09
MT	0.15	0.31	0.00	0.06	0.12	0.31	0.06	0.15	0.31	0.00	0.06	0.21	0.00	0.00	0.08
NL	0.14	0.06	0.27	0.06	0.14	0.06	0.06	0.15	0.14	0.06	0.06	0.15	0.06	0.06	0.06
PL	0.00	0.09	0.09	0.00	0.09	0.09	0.06	0.08	0.19	0.00	0.06	0.08	0.20	0.09	0.15
PT	0.25	0.09	0.00	0.24	0.24	0.09	0.06	0.08	0.35	0.14	0.14	0.08	0.00	0.09	0.05
RO	0.29	0.34	0.17	0.06	0.23	0.11	0.00	0.14	0.34	0.00	0.00	0.09	0.29	0.16	0.19
SE	0.36	0.06	0.06	0.14	0.14	0.06	0.06	0.10	0.29	0.31	0.06	0.15	0.06	0.06	0.12
SI	0.05	0.11	0.06	0.20	0.20	0.05	0.00	0.08	0.27	0.26	0.00	0.04	0.05	0.09	0.14
SK	0.12	0.20	0.00	0.00	0.00	0.12	0.00	0.10	0.12	0.00	0.00	0.05	0.18	0.00	0.00
UK	0.06	0.12	0.12	0.12	0.00	0.00	0.00	0.10	0.18	0.00	0.00	0.05	0.00	0.00	0.00

Notes: colours reflect distributions on the distance to SD requirements (sector-specific, average across requirements), with four tones of green from the darkest to the lightest identifying observations respectively in the 25th percentile (smallest distance); between the 25th and the median; between the median and the 75th percentile; above the 75th percentile (highest distance).

6 Developing countries revealed comparative advantages in services

6.1 This section focuses on developing countries with the objective of identifying country-sector pairs where UK preferential trade policy could trigger an effective stimulus to economic development. More precisely, descriptive analysis will be conducted to assess the potential of middle and low income countries to increase direct and indirect exports in services sectors. To this end, two indicators are used: (i) standard Balassa measure of revealed comparative advantage (RCA) based on the gross value of exports; and (ii) a measure of indirect revealed comparative advantage (IRCA). While the former provides information on the extent of specialization in specific services that are directly exported, the latter captures the degree of specialization in services which are embedded as intermediate inputs into all exports. Thus, IRCA takes into account that many services are difficult if not impossible to trade directly, although that is something that is changing rapidly as a result of technical change and, as discussed below, in practice services can be traded through FDI.

6.2 In a given country, a high IRCA for a particular services sector reflects good export performance of that sector, which could translate into a higher rate of economic growth for the country. In order to capture the indirect export performance, we use the forward linkage value added exports.[49] For any given country and any given services sector, we construct our measure of `forward linkage RCA' as the ratio between the share of that sector's value added (forward linkage) in the total exports of that country and the world average measure of the same share. Analogously the direct export RCA is defined as the ratio between the share of a sector in total exports of a country based on the gross value of exports and the world average share for that sector.

6.3 The data in this section are sourced from the Export Value Added Database managed by the World Bank.[50] The database covers 69 economies which are classified by the World Bank as non-high income: 14 low income countries (LICs), 27 lower middle income (LMICs) and 28 upper middle income countries (UMICs), plus 49 that are classified as high income. The data also covers 9 services sectors (water and other utility services; construction; wholesale and retail; transports; financial services; insurance services; business and ICT services; recreational, cultural and other consumer services; and education, health and other public services). For each of the two variables of interest – RCA and IRCA – the database allows one to compute a sample of 621 country-sector specific observations. Summary statistics on the sample are given in Table 20.[51] The correlation between the two variables is equal to 0.5389 and highly significant. This suggests a relevant degree of positive co-movement between the two indicators across countries and sectors.

Table 20: Summary statistics RCA and IRCA

Variable	Mean	Median	sd	Min	Max
RCA	0.839	0.477	1.363	0	22.036
IRCA	0.942	0.678	0.966	0	8.180

6.4 **Figure 26** and **Figure** 27 plot the country specific simple averages across sectors for RCA and IRCA respectively.[52] Colours reflect comparable intervals in the value of the two variables, with darker tones capturing higher values of relative specialization. These maps reveal how on average across services sectors, IRCA tends to be higher than RCA for many countries, see for instance the covered economies in South America, India and China. This pattern is somehow reversed for Iran, Egypt and some of the Eastern and Southern African countries in the database including Ethiopia, Kenya, Tanzania, Mozambique, Zimbabwe and Botswana revealing relatively higher capacity/necessity of directly exporting the output of their services sectors.

[49] Forward linkage value added exports of country c in sector s consist of the value of s's output used as intermediate input to produce any good and service that is exported by country c.
[50] http://data.worldbank.org/data-catalog/export-value-added.
[51] The values of RCA and IRCA for Armenia in water and other utility services are 22.036 and 8.180 respectively and they represent outliers in the sample, especially for RCA where the second highest value is 10.12 (Jamaica for recreational, cultural and other consumer services).
[52] The values for the UK of average RCA and average IRCA are 2.167 and 1.348.

Figure 26: RCA for developing countries (country average across services sectors)

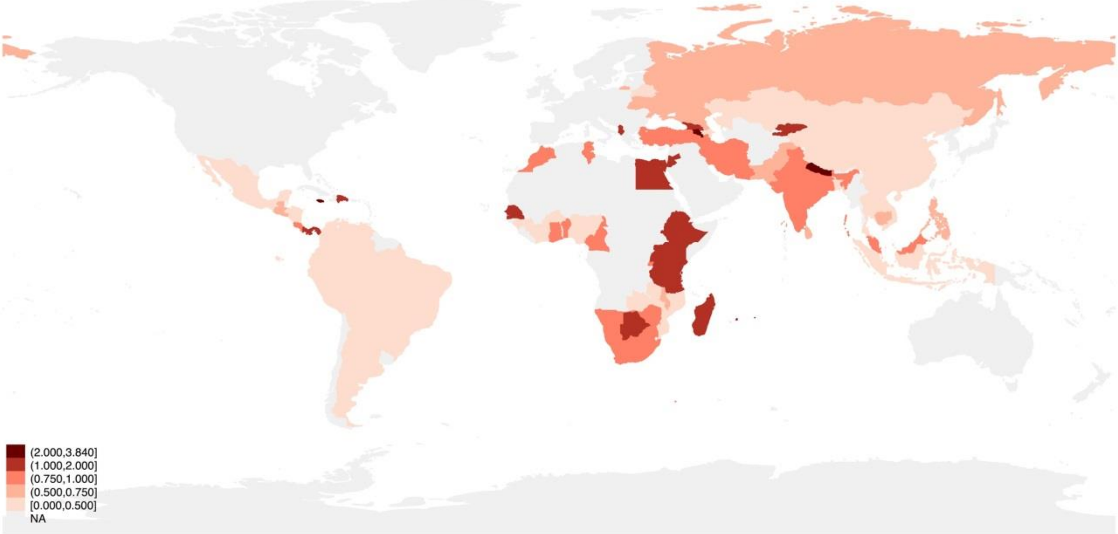
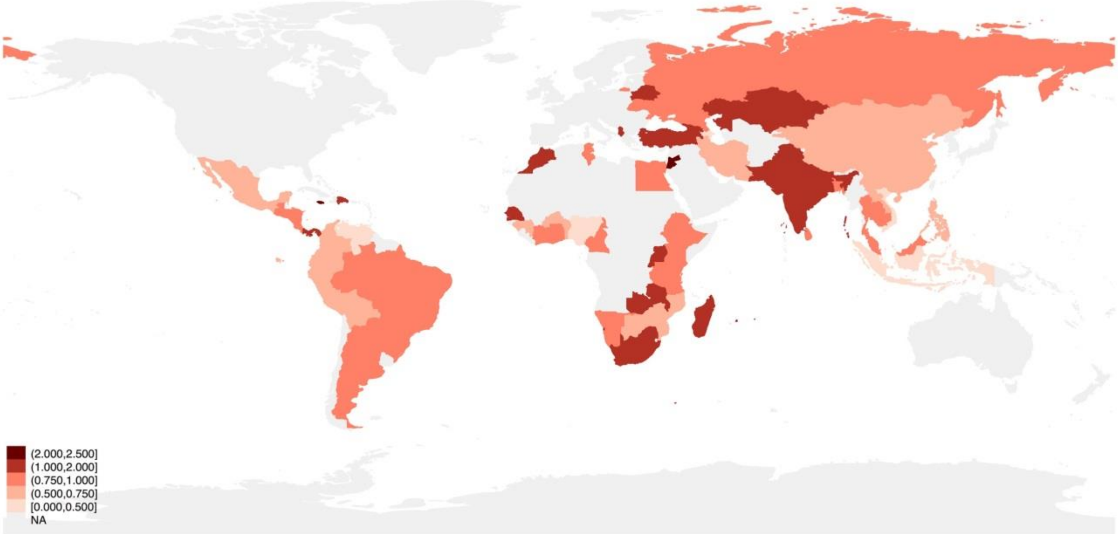


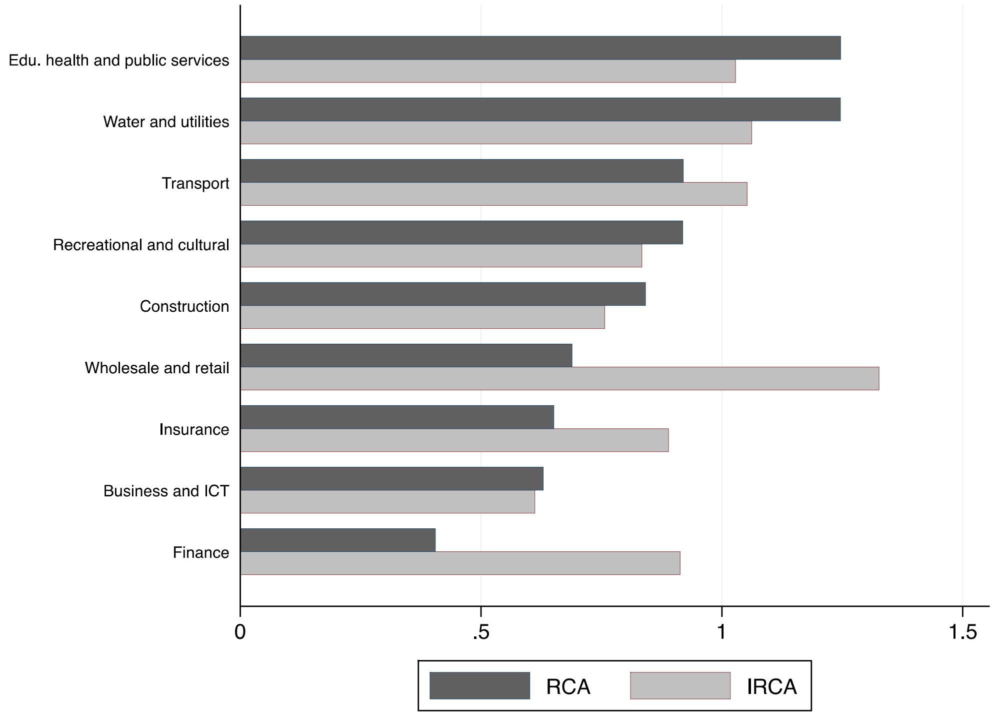
Figure 27: IRCA for developing countries (country average across services sectors)



6.5

Figure 28 plots the sector specific simple average across countries for both RCA and IRCA. On average across non HICs the degree of international specialization in key producer services such as finance, insurance, business remain very low. Only averages for public services and water and utilities are above one for both indicators, together with average IRCA for transport and wholesale and retail trade.

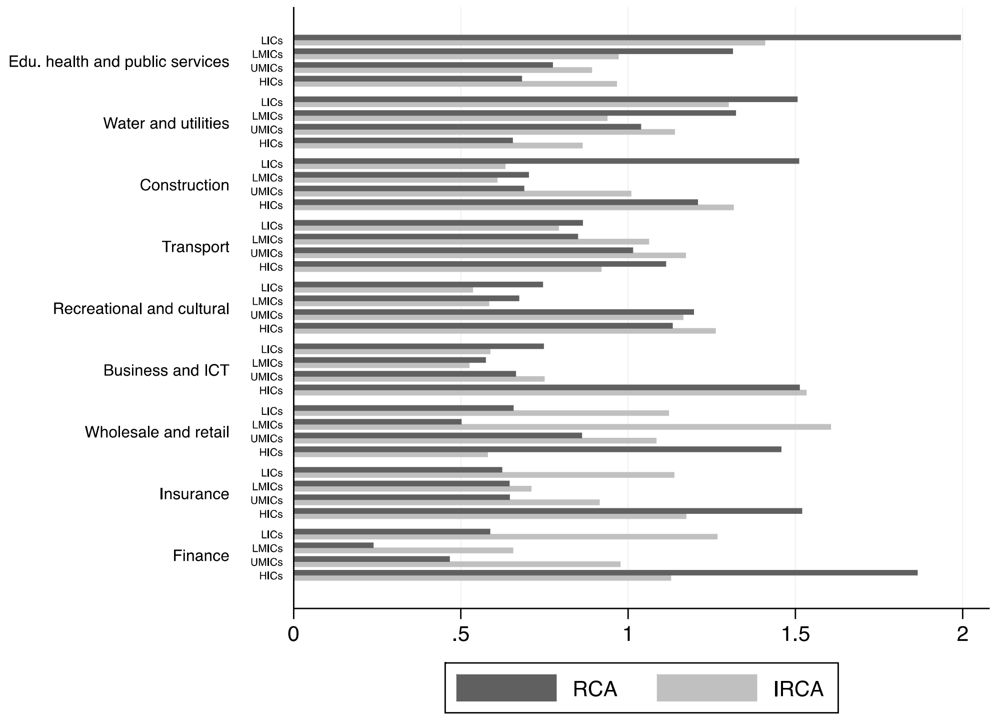
Figure 28: RCA and IRCA (sector averages across countries)



7

6.6 It is possible to further unpack these averages across the 4 income groups defined by the World Bank: i.e. LICs, LMICs, UMICs and high income countries (HICs). **Figure 29** reports sectoral averages across these four income regions. On average, HICs tend to show a relatively stronger comparative advantage (both direct and indirect) in business and ICT services, insurance and finance.

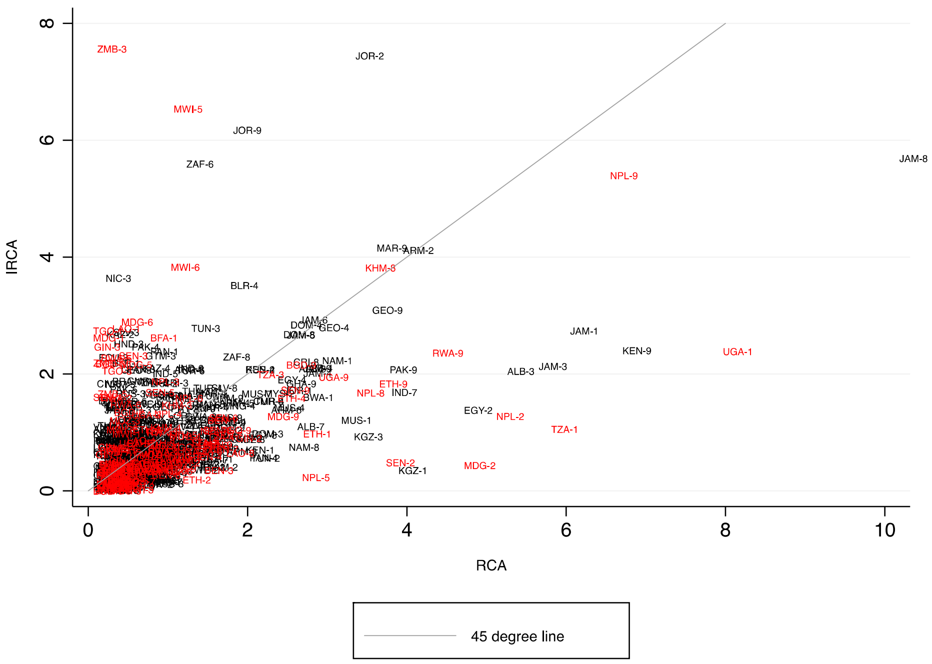
Figure 29: RCA and IRCA (sector averages across countries) by income group



6.7 A more precise assessment of the country-sector performance across all 69 non HICs and all 9 services sectors is given in **Table 21** where every single observation is reported. Countries are sorted in alphabetic order within each income group. Least Developed Countries (LDCs) as defined by the UN are identified within the group of LICs (the only LIC in the data that does not belong to the LDC group is Zimbabwe). Colours reflect 4 relevant intervals in the distribution of the two variables: observations below the 25th percentile; between the 25th and the 50th; between the 50th and the 75th; and above the 75th. Darker tones of green reflect intervals toward the right-hand side of the distribution. Beyond its function of complete reference of the data, **Table 21** is useful to identify specific countries that perform relatively well in sectors that scored low values in terms of averages across countries, or specific sectors for which countries with low average scores tend to perform relatively better. Take for instance the columns of business and ICT services. Dark green cells highlight the relatively better performance of India as captured by both RCA and IRCA. As another example consider the row for Nicaragua. Dark green cells reveal that the country has a strong IRCA in wholesale and retail services.

6.8 **Table 21** is complemented by **Figure 30** where country-sector values of IRCA are plotted against respective values of RCA. Each point in the figure has a composite label which comprehends a country ISO code and a numeric label for a sector (1 for water and other utility services; 2 for construction; 3 for wholesale and retail; 4 for transports; 5 for financial services; 6 for insurance services; 7 for business and ICT services; 8 for recreational, cultural and other consumer services; and 9 for education, health and other public services). The outlier observation of Armenia-water and utilities is excluded. **Figure 30** allows one to quickly identify country-sector pairs with the highest scores for the two indicators. Examples are Jordan-construction services, Malawi for financial services and transport, Albania and Jamaica for wholesale and retail etc. Observations (country-sector pairs) including LDCs are denoted with a red coloured label.

Figure 30: RCA and IRCA in country-sector pairs (scatterplot)



Notes: each point in the chart represent a country-sector pair. Countries are identified through their ISO codes while sectors with a numeric label: 1 for water and other utility services; 2 for construction; 3 for wholesale and retail; 4 for transports; 5 for financial services; 6 for insurance services; 7 for business and ICT services; 8 for recreational, cultural and other consumer services; and 9 for education, health and other public services. Observations including LDCs are labelled in red.

Table 21: RCA and IRCA across non HICs

		RCA									Indirect RCA								
		Water and other utility services	Construction	Wholesale and retail trade	Transport services	Financial services	Insurance services	Business and ICT services	Recreational, cultural and other consumer services	Education, health and other public services	Water and other utility services	Construction	Wholesale and retail trade	Transport services	Financial services	Insurance services	Business and ICT services	Recreational, cultural and other consumer services	Education, health and other public services
LDC - LIC	BEN	1.44	0.41	1.40	1.25	0.22	0.69	1.46	0.74	1.38	1.21	0.08	0.35	0.59	0.41	0.74	0.72	0.28	0.80
	BFA	0.72	0.05	0.17	0.07	0.26	0.07	0.04	0.18	0.23	2.62	0.31	0.10	0.46	0.67	0.33	0.28	0.11	0.15
	BGD	0.00	0.26	0.03	0.08	0.09	0.12	0.41	0.07	2.42	0.00	1.34	2.18	0.69	0.44	0.25	0.17	0.31	2.16
	ETH	2.63	1.12	0.67	2.31	0.95	0.50	0.43	0.63	3.59	0.98	0.19	0.82	1.59	0.96	1.05	0.82	0.49	1.83
	GIN	0.24	1.79	0.01	0.06	0.03	0.20	0.22	0.09	0.21	0.39	0.91	2.47	0.75	0.62	0.51	0.49	0.19	0.13
	KHM	0.24	0.19	0.86	0.72	0.10	0.12	0.09	3.42	0.54	0.47	0.17	1.47	1.09	0.40	0.31	0.17	3.82	0.47
	LAO	0.24	0.05	0.20	0.43	0.04	0.48	0.04	1.67	0.64	2.78	0.06	1.12	0.86	0.13	0.45	0.09	0.65	0.39
	MDG	0.00	4.65	0.21	0.96	0.34	0.35	0.95	0.06	2.19	2.62	0.44	0.00	0.93	2.16	2.89	0.59	0.03	1.28
	MOZ	0.72	0.81	0.21	0.58	0.11	0.12	0.28	0.21	0.84	0.78	0.35	1.21	0.63	0.33	0.16	0.20	0.31	0.57
	MWI	0.24	0.98	0.40	0.57	1.01	0.98	1.00	0.16	0.50	0.98	0.49	0.02	0.37	6.54	3.83	0.53	1.05	0.62
	NPL	0.24	5.06	0.73	0.77	2.62	1.03	1.34	3.31	6.49	0.35	1.28	1.87	1.32	0.23	1.59	1.03	1.68	5.40
	RWA	0.48	0.10	0.67	0.68	0.10	0.21	0.13	0.43	4.26	0.31	1.59	1.00	0.68	2.28	1.48	0.38	0.34	2.36
	SEN	0.00	3.68	0.32	1.23	0.66	1.45	1.51	1.38	2.36	1.60	0.49	2.32	0.83	1.69	1.25	0.96	1.04	1.73
	TGO	0.00	0.19	0.11	0.99	0.26	0.32	0.49	0.09	1.61	2.74	0.05	2.05	0.75	0.23	0.18	0.34	0.07	1.04
	TZA	5.75	0.64	2.05	1.43	0.15	0.90	1.22	1.28	0.95	1.06	1.02	1.99	0.92	0.03	0.34	0.83	0.68	0.38
	UGA	7.90	0.48	1.32	0.45	0.32	0.74	0.14	1.06	2.83	2.39	1.31	0.78	0.56	0.81	0.45	0.48	0.67	1.95
	ZMB	0.00	0.02	0.05	0.17	0.06	0.20	0.05	0.05	0.07	2.19	0.01	7.56	0.73	1.66	0.73	0.12	0.10	0.21
LIC	ZWE	0.72	1.19	0.92	0.74	1.18	1.15	1.24	0.82	0.48	0.16	0.36	0.71	0.71	0.76	1.13	0.60	0.56	1.49
LMIC	ARM	22.04	3.89	1.67	1.58	0.45	2.23	0.74	0.39	1.50	8.18	4.12	0.68	1.51	0.22	1.39	0.16	0.07	1.59
	BOL	0.48	0.05	0.13	0.42	0.20	1.52	0.09	0.08	0.47	0.63	0.04	1.09	0.95	0.26	0.99	0.37	0.07	0.65
	CIV	0.00	0.69	0.05	0.33	0.40	0.90	0.67	0.07	1.14	0.67	0.11	1.84	0.34	1.02	0.99	1.49	0.04	0.63
	CMR	0.00	0.17	0.43	2.01	0.10	1.31	1.34	0.48	1.73	0.27	0.18	1.88	1.54	0.14	0.90	1.22	0.31	0.89
	EGY	0.00	4.65	0.79	2.32	0.53	0.83	0.82	1.95	1.32	0.12	1.38	0.44	1.90	0.58	0.85	0.61	0.96	1.03
	GHA	0.00	0.10	0.03	0.99	0.14	0.48	1.32	1.46	2.42	0.43	0.38	0.88	1.63	0.16	0.43	0.53	0.93	1.84
	GTM	0.48	0.07	0.66	0.24	0.15	0.48	0.28	1.46	1.53	1.21	0.37	2.31	0.06	0.64	0.76	0.78	1.22	1.17
	HND	0.72	0.02	0.26	0.32	0.16	0.80	0.08	0.21	0.70	0.51	0.87	2.52	0.46	0.25	0.33	0.98	0.38	0.85
	IDN	0.24	0.60	0.24	0.21	0.20	0.11	0.08	0.31	0.31	0.12	0.34	0.84	0.45	0.85	0.25	0.08	0.90	0.40
	IND	0.00	0.57	0.45	0.75	0.74	1.06	3.75	0.19	0.30	0.31	1.01	1.17	1.07	2.01	2.10	1.69	0.26	0.31
	KEN	1.92	0.10	0.04	1.92	0.37	0.66	0.13	0.05	6.64	0.70	0.28	0.60	2.08	0.59	0.60	0.37	0.04	2.40
	KGZ	3.83	1.41	3.27	1.01	0.15	0.35	0.31	1.80	1.46	0.35	0.91	0.93	0.60	0.19	0.23	0.22	0.89	0.74
	LKA	0.00	0.72	0.28	0.98	0.09	1.24	0.78	0.24	0.22	0.74	1.84	1.13	1.55	0.22	1.13	0.46	0.42	0.14
	MAR	0.72	0.19	0.43	1.29	0.09	0.76	1.03	0.28	3.56	0.20	0.28	0.78	1.68	0.30	0.68	0.52	0.45	4.16
	MNG	0.72	0.24	0.30	1.64	0.14	0.14	0.24	0.30	0.39	0.59	0.57	0.54	1.46	1.06	0.55	0.16	0.19	0.35
	NGA	0.00	0.02	0.05	0.20	0.07	0.07	0.04	0.05	0.41	0.16	0.04	0.09	0.24	0.06	0.05	0.03	0.03	0.10
	NIC	0.96	0.02	0.16	0.38	0.04	0.20	0.13	0.49	0.71	0.47	0.40	3.64	0.35	0.85	0.49	0.25	0.55	0.42
	PAK	0.00	0.57	0.12	0.48	0.21	0.30	0.49	0.08	3.72	0.86	0.19	1.54	2.47	1.74	1.28	1.01	0.02	2.08
	PHL	0.24	0.41	0.57	0.67	0.39	0.23	1.11	0.69	0.35	0.63	0.25	1.16	0.61	0.57	0.54	0.67	0.64	0.33
	SLV	0.72	0.81	0.25	0.95	0.15	1.44	0.14	1.48	0.46	0.20	0.34	2.72	1.10	0.55	0.76	0.51	1.77	0.31
	TUN	1.44	1.98	1.23	1.33	0.69	0.53	0.37	0.21	1.20	0.94	0.56	2.78	1.63	0.91	0.79	0.36	0.01	0.97
	UKR	0.72	0.48	0.68	1.33	0.31	0.27	0.66	0.50	0.87	0.51	0.19	0.94	1.43	1.53	0.88	0.72	0.50	1.16
	VNM	0.00	0.69	0.32	0.20	0.37	0.59	0.31	0.24	0.33	1.10	0.19	0.52	0.19	0.39	0.49	0.45	0.24	0.48
UMIC	ALB	0.72	0.93	5.20	2.67	0.95	0.69	2.56	2.58	0.92	0.47	0.45	2.05	2.10	1.20	1.14	1.10	2.09	0.82
	ARG	0.48	0.14	0.55	0.40	0.11	0.12	0.98	1.02	0.57	0.43	0.77	0.74	0.76	0.71	0.25	0.81	2.08	1.87
	AZE	0.00	0.45	0.06	0.47	0.03	0.14	0.38	0.05	0.27	1.06	0.72	0.19	0.68	0.23	0.21	0.19	0.18	0.17
	BLR	0.24	0.79	0.09	1.72	0.07	0.09	0.37	0.07	0.31	2.19	1.61	0.62	3.52	1.55	1.00	0.27	0.09	0.60
	BRA	0.24	0.10	0.32	0.33	0.39	0.55	1.12	0.25	0.56	1.88	0.28	0.98	0.88	1.25	0.79	0.89	0.19	0.33
	BWA	2.63	0.45	0.53	0.51	0.71	1.22	0.80	1.16	1.11	1.60	0.72	0.52	0.42	0.25	0.80	0.46	1.28	0.51
	CHN	0.24	0.67	0.65	0.37	0.10	0.18	0.27	0.26	0.25	0.59	0.18	0.80	0.85	1.51	0.49	0.50	0.81	0.65
	COL	0.72	0.10	0.62	0.62	0.31	0.14	0.40	0.51	0.47	0.70	0.46	0.65	0.87	0.50	0.53	0.97	0.66	0.28
	CRI	1.44	0.05	0.87	0.31	0.14	0.14	1.01	2.51	0.70	0.55	0.04	1.85	1.00	0.95	0.40	1.29	2.21	0.57
	DOM	0.72	0.10	1.99	2.48	0.26	0.67	0.41	2.39	1.51	1.64	0.26	0.98	2.84	1.15	1.13	0.48	2.68	1.09
	ECU	0.00	0.05	0.07	0.58	0.13	0.04	0.05	0.29	0.46	0.08	0.43	2.29	0.95	0.11	0.26	0.39	0.36	0.29
	GEO	1.44	0.33	0.35	2.83	0.27	1.01	0.28	0.75	3.50	0.67	0.27	2.07	2.80	0.24	0.69	0.33	1.44	3.09
	IRN	0.48	1.34	1.02	0.99	1.27	1.15	1.39	0.40	0.69	0.31	0.41	0.55	0.69	0.64	0.74	0.73	0.27	0.44
	JAM	5.99	0.14	5.59	2.64	2.43	2.59	0.37	10.12	2.64	2.74	1.39	2.13	2.02	2.67	2.93	0.81	5.69	2.10
	JOR	2.40	3.29	0.94	1.56	0.42	0.12	0.85	0.61	1.76	1.72	7.45	0.45	1.19	0.80	0.26	0.30	0.70	6.17
	KAZ	0.00	0.17	0.14	0.62	0.13	0.14	0.20	0.25	0.65	0.98	2.68	0.02	2.11	1.48	0.16	1.18	0.46	0.42
	MEX	0.00	0.69	0.16	0.29	0.39	1.21	0.21	0.64	0.14	0.08	0.30	1.44	0.60	0.56	0.96	1.18	1.24	0.15
	MUS	3.11	0.41	0.75	2.27	0.99	1.12	1.86	0.86	1.49	1.21	0.32	0.13	1.43	0.83	0.86	1.66	1.62	1.26
	MYS	1.44	2.15	0.63	0.57	0.15	0.85	0.54	0.96	0.16	1.02	1.67	1.66	0.59	1.43	0.66	0.57	0.65	0.18
	NAM	2.87	1.43	0.15	0.45	0.20	0.37	0.06	2.45	0.53	2.23	0.41	1.83	0.99	0.67	0.43	0.87	0.75	0.38
	PAN	0.72	0.10	0.43	1.96	1.67	1.24	0.88	1.30	1.18	2.39	0.45	2.08	0.57	1.51	1.48	0.97	1.49	1.41
	PER	0.00	0.05	0.15	0.39	0.11	1.17	0.18	0.61	0.22	0.63	0.41	0.18	0.30	0.90	1.21	0.88	0.83	0.24
	PRY	0.24	0.17	0.97	0.33	0.07	0.92	0.53	0.33	0.74	0.47	1.38	1.41	0.49	0.84	0.95	0.24	1.50	0.44
	RUS	0.48	1.91	0.29	0.57	0.23	0.28	0.76	0.18	0.16	1.14	2.08	1.67	0.87	0.94	0.41	0.69	0.07	0.13
	THA	0.48	0.50	1.12	0.64	0.06	0.44	0.51	0.39	0.22	0.82	0.13	1.71	0.62	1.12	0.93	0.32	0.89	0.37
	TUR	0.48	1.22	0.37	1.26	1.04	0.92	0.10	2.03	0.35	1.25	0.46	1.39	1.76	2.06	0.81	0.39	1.54	0.27
	VEN	0.24	0.05	0.20	0.23	0.06	0.07	0.11	0.14	0.29	0.16	0.76	0.22	0.31	0.99	0.16	0.43	0.16	0.23
	ZAF	1.44	0.17	0.60	0.40	0.61	1.17	0.28	1.63	0.80	0.74	0.45	1.86	0.67	0.51	5.60	0.91	2.30	0.57

Notes: colours reflect distributions on the two variables RCA and IRCA, with four tones of green from the lightest to the darkest identifying observations respectively in the 25th percentile; between the 25th and the median; between the median and the 75th percentile; above the 75th percentile.

6.9 Finally, **Table 22** reports country-sector specific values of RCA and IRCA for the 49 HICs in the World Bank EVAD database, together with income group averages as a benchmark. The data confirm the expected strong direct comparative advantage of the UK in financial, insurance and business services. Only Luxembourg shows a stronger relative specialization in financial services based on gross exports. As for indirect comparative advantage, business services emerge as the leading services sector in the UK. **Table 22** also reveals how the ranking in terms of services trade openness is not necessarily fully informative about the degree of relative international specialization in services. For instance, while Germany scores relatively high in terms of openness of services trade policy, its performance captured by the direct and indirect comparative advantage in services sectors is comparatively low. This is due to the relative nature of the RCA and IRCA measures, which capture countries' export performance across all sectors of production.

Table 22: RCA and IRCA across HICs

	RCA									**IRCA**								
	Water and other utility services	**Construction**	**Wholesale and retail trade**	**Transport services**	**Financial services**	**Insurance services**	**Business and ICT services**	**Recreational, cultural and other consumer services**	**Education, health and other public services**	**Water and other utility services**	**Construction**	**Wholesale and retail trade**	**Transport services**	**Financial services**	**Insurance services**	**Business and ICT services**	**Recreational, cultural and other consumer services**	**Education, health and other public services**
ARE	1.20	1.03	0.56	0.64	1.03	0.76	0.89	0.27	0.45	0.55	0.40	0.18	0.58	0.47	0.65	0.61	0.60	0.37
AUS	1.44	0.14	1.27	0.49	0.55	1.06	0.73	1.73	0.96	2.00	1.82	0.76	0.58	1.11	1.20	1.50	1.15	0.94
AUT	0.00	1.60	1.54	1.36	0.50	1.60	1.78	0.93	0.49	0.59	2.11	0.43	1.21	0.61	1.60	1.91	1.13	0.84
BEL	0.24	0.62	0.79	1.03	0.62	0.80	1.31	0.49	0.54	1.02	2.11	0.04	1.12	0.66	1.20	2.42	0.67	1.21
BHR	1.20	3.06	0.33	0.68	2.26	8.03	0.55	0.88	1.27	0.63	0.59	0.13	0.38	1.05	6.53	0.41	0.76	0.94
BRN	0.00	1.24	0.28	0.57	0.65	0.30	0.49	0.27	0.49	0.00	0.11	0.21	0.35	0.24	1.33	0.23	0.11	0.24
CAN	0.00	0.21	0.51	0.44	0.64	2.07	1.27	1.03	0.60	0.04	0.72	0.81	0.52	1.04	1.40	1.34	0.75	0.86
CHE	0.24	0.10	1.35	0.33	3.61	3.37	1.04	0.36	1.04	0.55	0.77	1.12	0.62	2.80	3.53	1.48	0.74	1.55
CHL	0.24	0.05	0.40	1.01	0.13	0.60	0.33	0.26	0.23	0.47	0.34	0.60	1.06	0.41	0.66	1.52	0.56	0.25
CYP	1.44	3.89	3.68	2.92	3.77	2.68	4.62	3.11	4.90	0.90	2.67	0.39	1.52	2.24	0.96	3.09	3.03	3.57
CZE	0.48	0.48	0.20	0.69	0.23	0.11	0.73	0.52	0.10	0.90	1.57	0.14	1.00	1.03	0.21	1.24	0.53	0.43
DEU	0.24	1.93	0.58	0.66	0.54	0.89	1.19	0.40	0.42	0.67	1.33	0.62	0.70	0.83	0.60	2.36	1.02	1.10
DNK	0.48	4.42	1.40	1.58	2.44	3.83	2.46	1.29	1.48	0.23	2.59	0.02	1.00	1.39	2.44	1.88	1.52	1.61
ESP	0.72	2.58	2.46	1.09	1.30	1.05	2.49	2.84	0.67	1.14	2.13	1.04	1.06	1.42	0.54	1.91	2.34	0.90
EST	1.20	2.51	0.82	1.81	0.57	0.27	1.68	0.84	0.39	1.41	2.07	0.03	1.71	1.23	0.54	2.21	0.75	0.68
FIN	0.00	1.03	4.36	0.64	0.41	0.43	1.61	0.45	0.22	0.78	1.18	0.04	1.02	0.71	1.58	1.80	0.63	0.81
FRA	0.72	1.79	1.06	0.98	0.31	0.74	1.22	1.34	0.43	0.51	1.36	0.16	0.67	1.30	0.93	2.66	1.16	1.03
GBR	0.24	0.86	1.06	1.09	6.78	3.49	3.82	1.42	0.75	0.67	1.50	0.45	0.86	1.69	1.49	2.93	1.40	1.15
GRC	1.44	1.60	2.87	4.43	0.39	1.68	1.88	2.66	1.23	1.14	1.55	0.55	0.00	1.10	0.80	2.13	3.24	1.36
HKG	0.48	0.53	17.61	2.46	4.43	0.85	3.42	0.89	0.06	2.04	0.21	4.12	2.29	2.39	1.03	1.87	0.68	0.05
HRV	6.95	0.88	2.21	2.48	0.54	0.89	2.31	2.66	0.63	2.74	4.26	1.75	1.58	0.31	1.01	1.03	2.64	0.86
HUN	0.72	1.03	0.88	0.53	0.20	0.18	0.99	1.82	0.24	0.82	1.33	0.04	0.68	0.51	0.36	1.78	1.58	0.96
IRL	0.00	0.12	2.31	0.36	2.90	12.43	4.58	0.32	0.17	0.20	0.95	1.14	0.26	1.97	5.53	2.61	0.25	0.28
ISR	0.72	1.81	1.31	1.14	0.13	0.21	2.81	0.69	0.45	1.57	1.51	0.65	1.13	1.53	0.61	2.60	0.76	0.69
ITA	0.72	1.36	1.33	0.65	0.59	0.89	1.45	1.21	0.38	0.43	1.27	0.32	0.37	1.49	0.51	2.35	1.47	0.76
JPN	0.00	2.46	1.05	0.92	0.49	0.48	0.50	0.23	0.29	1.02	1.31	1.35	1.07	1.39	0.80	1.42	0.37	2.79
KOR	0.00	3.56	0.28	1.09	0.48	0.23	0.60	0.27	0.35	1.14	1.37	0.72	1.28	1.15	0.69	0.96	0.95	2.06
KWT	0.24	0.05	0.03	0.84	0.12	0.23	0.25	0.03	1.00	0.27	0.10	0.06	0.56	0.17	0.16	0.14	0.26	0.60
LTU	0.24	0.69	0.51	1.90	0.15	0.11	0.42	0.58	0.31	1.68	0.31	0.63	2.19	0.40	0.48	0.77	1.54	0.65
LUX	0.48	1.77	1.88	0.96	37.93	9.01	2.64	1.61	0.78	0.78	2.90	0.42	1.10	3.03	1.89	2.80	1.48	1.60
LVA	0.72	0.93	0.62	2.30	1.20	0.32	1.21	0.58	0.34	0.74	1.33	0.19	2.18	0.66	0.60	0.72	0.59	0.51
MLT	1.20	0.19	1.73	1.28	2.37	1.44	2.91	10.71	0.64	1.60	0.28	0.52	0.06	0.93	0.70	1.17	11.00	0.50
NLD	0.48	1.48	0.70	1.26	0.31	0.66	2.49	0.55	0.67	0.86	1.94	0.05	0.80	0.58	0.78	2.81	1.96	1.21
NOR	0.24	0.53	0.54	1.99	0.50	0.50	1.84	0.51	0.29	0.08	0.82	0.67	1.27	0.67	0.76	1.08	0.48	0.85
NZL	0.00	0.17	1.69	0.96	0.25	0.62	0.77	2.44	1.25	1.06	1.29	0.98	0.78	1.88	0.76	1.87	1.68	1.19
OMN	0.72	0.12	0.35	0.31	0.10	0.09	0.39	0.13	0.22	0.39	0.08	0.07	0.22	0.05	0.06	0.21	0.20	0.14
POL	0.00	2.41	0.33	1.02	0.26	0.21	0.99	0.77	0.17	1.49	2.78	0.03	0.95	0.40	0.61	1.40	0.91	0.57
PRI	0.96	0.74	0.92	0.57	2.27	1.45	1.28	0.37	1.93	0.20	0.48	0.62	0.47	1.11	0.96	0.57	0.54	2.52
PRT	0.96	2.39	2.02	1.36	0.68	0.69	1.48	1.80	0.95	0.63	2.04	0.27	1.00	1.61	0.79	1.76	1.48	0.90
QAT	1.44	1.36	0.64	0.84	1.46	1.05	1.20	0.41	0.75	0.51	0.59	0.19	0.73	0.56	0.75	0.67	0.70	0.52
SAU	0.48	0.79	0.31	0.13	0.44	0.57	0.47	0.17	0.14	0.35	0.23	0.07	0.07	0.17	0.40	0.25	0.17	0.11
SGP	0.24	0.62	1.65	1.86	2.14	1.37	2.22	0.56	0.36	0.74	0.45	0.96	2.33	1.64	1.61	1.73	0.95	0.77
SVK	0.48	0.41	0.37	0.60	0.27	0.23	0.47	0.69	0.11	1.17	2.33	0.03	1.04	0.98	0.60	1.41	0.81	0.40
SVN	0.24	1.43	0.95	1.06	0.35	0.41	0.97	0.94	0.23	0.51	1.92	1.03	1.02	0.51	0.18	1.19	1.13	1.22
SWE	0.00	0.91	1.88	1.00	0.51	1.12	2.61	0.46	0.28	1.14	1.33	0.22	1.09	0.82	1.05	3.23	0.64	0.90
TTO	0.48	0.02	0.17	0.33	0.12	2.02	0.09	0.09	0.16	0.70	0.92	0.38	0.25	0.76	2.53	0.23	0.60	0.09
TWN	0.00	0.41	0.32	0.27	0.42	0.46	0.42	0.28	0.29	0.47	0.29	1.37	0.51	2.37	0.91	0.72	1.80	0.76
URY	0.72	0.07	0.73	1.01	0.46	0.23	0.76	1.02	1.00	1.53	1.12	0.80	1.15	1.84	0.53	0.58	1.19	1.39
USA	0.72	0.86	0.56	0.61	2.56	1.81	1.50	1.61	2.35	1.29	1.80	1.07	0.68	2.07	1.60	1.53	0.91	1.64
HIC	0.66	1.21	1.46	1.11	1.86	1.52	1.51	1.13	0.68	0.86	1.32	0.58	0.92	1.13	1.17	1.53	1.26	0.97
LIC	1.51	1.51	0.66	0.86	0.59	0.62	0.75	0.75	1.99	1.30	0.63	1.12	0.79	1.27	1.14	0.59	0.54	1.41
LMIC	1.32	0.70	0.50	0.85	0.24	0.65	0.57	0.67	1.31	0.94	0.61	1.61	1.06	0.66	0.71	0.52	0.58	0.97
UMIC	1.04	0.69	0.86	1.01	0.47	0.65	0.66	1.20	0.77	1.14	1.01	1.08	1.17	0.98	0.91	0.75	1.16	0.89

6.10 As with procurement above, a major evidence gap affecting the analysis of policy towards services trade is the weakness in available data on both policy and outcomes. Such weaknesses are particularly acute for developing countries. Allocating funding to improve data on trade in services and services trade and regulatory policies will have a high payoff in the medium term in helping to enhance accountability and learning (monitoring and evaluations). The fact is that despite efforts over the last decade we still have only one globally comparable data point for services trade policy: the World Bank STRI. Although the OECD is expanding its more detailed services policy complication efforts to emerging economies this does not span the majority of low and lower-middle-income countries. The World Bank initiative is supposed to be replicated periodically in a joint venture between the World Bank and the WTO, to date this has not delivered an update of the existing data, which is almost a decade old at this point. A lack of financial support and leadership to collect data for developing countries has meant that researchers have strong incentives to look under the lamppost – i.e., focus on OECD countries because the OECD Secretariat has been at the forefront in data compilation that is sustained and replicated over time.

6.11 Hoekman and te Velde (2017) bring together a set of expert recommendations regarding services-related evidence gaps and associated research priorities from an economic development perspective. In addition to the need to improve information on applied services policies in developing countries, there are important evidence gaps in: (i) capturing the relative importance (use) of the different modes through which trade in services occurs (cross-border via ICT networks and e-commerce platforms, FDI, temporary movement of service suppliers; movement of consumers) – including not just North-South flows but also tracking south-south trade in services; and (ii) improving firm-level data. The latter is an important input into analysis of the effects of (changes in) service policies. A key evidence gap here is information on the use (purchases) of services by firms, the extent to which firms produce and sell both goods and services, complementarities between services and merchandise trade, and data allowing the productivity of firms in services sectors to be estimated.

6.12 While not directly related to the issues that are the subject of this section, there are two areas where from a development perspective services-specific research is a priority. The first relates to efforts to help achieve the SDGs. As argued at greater length in Fiorini and Hoekman (2017b), making progress on the SDGs is to a large extent an agenda that revolves around improving the quality of – and access to – a range of services such as transport, communications, finance, health and education. Fiorini and Hoekman find that barriers to trade and investment in services in developing countries are associated negatively with indicators of access and performance of finance, ICT and transport services. They also find that the relationship is affected importantly by the quality of economic institutions. An implication is that policy efforts to achieve the SDGs should include a focus on reducing services trade and investment barriers as well improving economic governance, and not centre only on interventions that directly target the performance of specific service sectors and activities that impact on the SDGs. A research priority here is to analyse in greater detail the relationships between services trade and investment policies (and potential reforms) and the performance of services sectors that are relevant for the specific SDGs.

6.13 A second priority for research is to assess the effectiveness of aid for trade (AfT) from the perspective of providing support for greater trade in services. Most AfT is directed towards improving the performance of services, both private and public, especially the availability and quality of transport and ICT infrastructure and the operation of ports and border crossings (trade facilitation projects). Only a small share of AfT is directed towards enhancing the productive capacities of firms in services sectors. Hoekman and Shingal (2017) analyse the relationship between AfT and trade in services on the one hand and trade in goods on the other. Overall, their empirical analysis indicates that most AfT is not associated with greater trade in services, although disaggregated analysis suggests substantial heterogeneity in the relationship between AfT and trade in services at the sector level. This contrasts with statistically significant positive correlations between AfT and trade in goods, especially AfT that takes the form of capacity building of firms producing goods. These findings suggest there is value in better understanding how AfT can be designed to become a more effective mechanism to support services trade. This calls for country-level analysis so as to be able to consider both cross-border trade and foreign direct investment in services as well as the complementarities between different types of AfT and trade in goods and services.

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Supplementary Material

Sub-regions within the EU27 are defined as follows:

Mediterranean EU15: Italy, Greece, Portugal, and Spain;
Central EU15: Austria, Belgium, France, Germany, Ireland, Luxembourg, and the Netherlands;
Nordic EU15: Denmark, Finland, Sweden;
Accession: Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovak Republic, Slovenia, Romania; Baltic: Estonia, Latvia, Lithuania;
East EU: Czech Republic, Hungary, Poland, Slovak Republic, Slovenia.