

# CHAPTER 18

## Lessons from the pandemic for trade cooperation in digital services<sup>1</sup>

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### INTRODUCTION

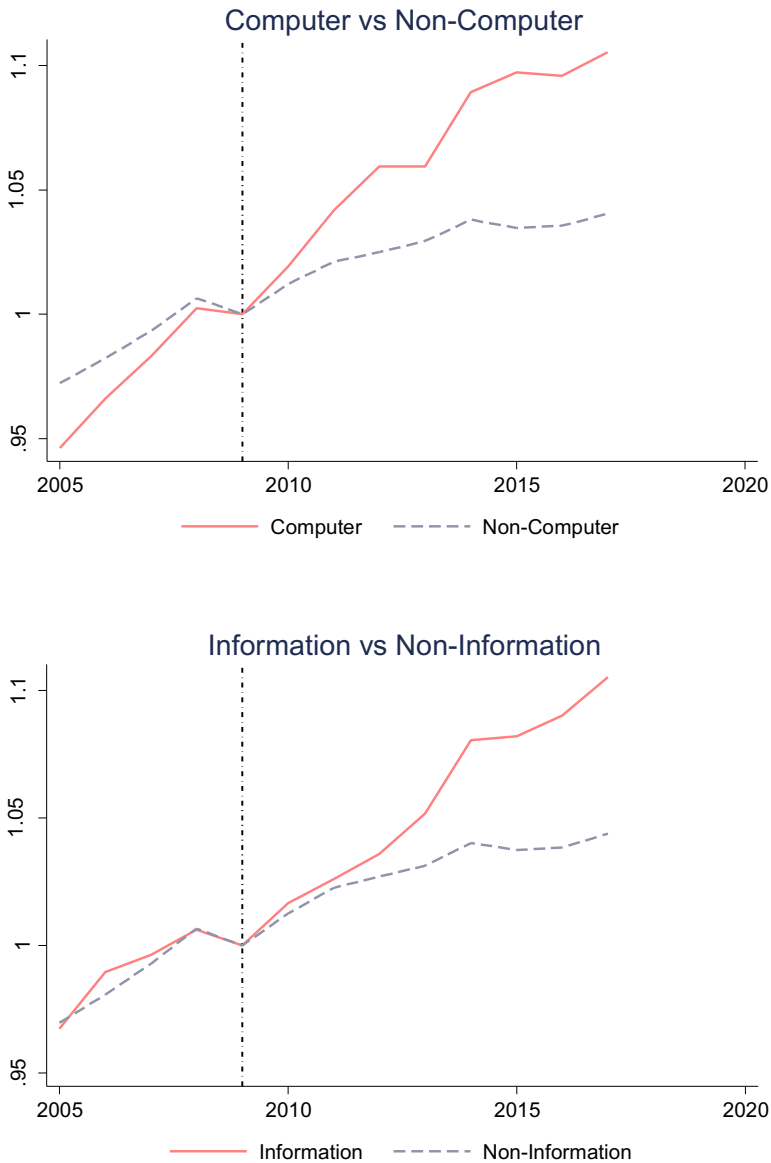
The future of global trade lies to a considerable extent in digital services. In large part, this is due to the current pandemic. The COVID-19 crisis has ushered the global economy into the use of more digital technologies, pushing trade to become based more on digital services.

That opens the door for many countries to participate in digital services trade, including the poorer ones. A comparison with the Global Financial Crisis (GFC) of 2008-2009 reveals an important parallel. After the GFC, digital services flows grew much faster than many other types of services trade (Figure 1).<sup>2</sup> That provided trade opportunities not only for the richer part of this world, but also for developing countries. In fact, the increase of digital services trade post-GFC was faster for the latter group of countries lower down on the income ladder. They could profit again from the boost in digital outsourcing opportunities in trade after COVID-19.

However, not all countries are embracing the current development of increased digital services trade. There are also increasing frictions between countries over how to regulate new digital trade flows related to services. At a time of rapid global digital trade expansion, governments have been quick to implement many of these restrictions. This forms the main reason for countries to quickly deal with them, too.

1 I am grateful to Simon Evenett, Fredrik Erixon, Bernard Hoekman, Matthias Bauer, Hosuk Lee-Makiyama and Paola Conconi for comments and discussions on earlier drafts.

2 Previous empirical works already showed that services weathered the crisis a lot better than goods trade during the GFC (Borchert and Mattoo 2009) and that their specific nature and their continuous need in the economy services became crisis-proof during the GFC (Ariu 2019), in particularly business services, telecom and finance - all of which nowadays come into existence with the help of digital technologies and the internet.

**FIGURE 1 EXPORTS OF DIGITAL SERVICES GROWING FASTER THAN OTHER SERVICES**

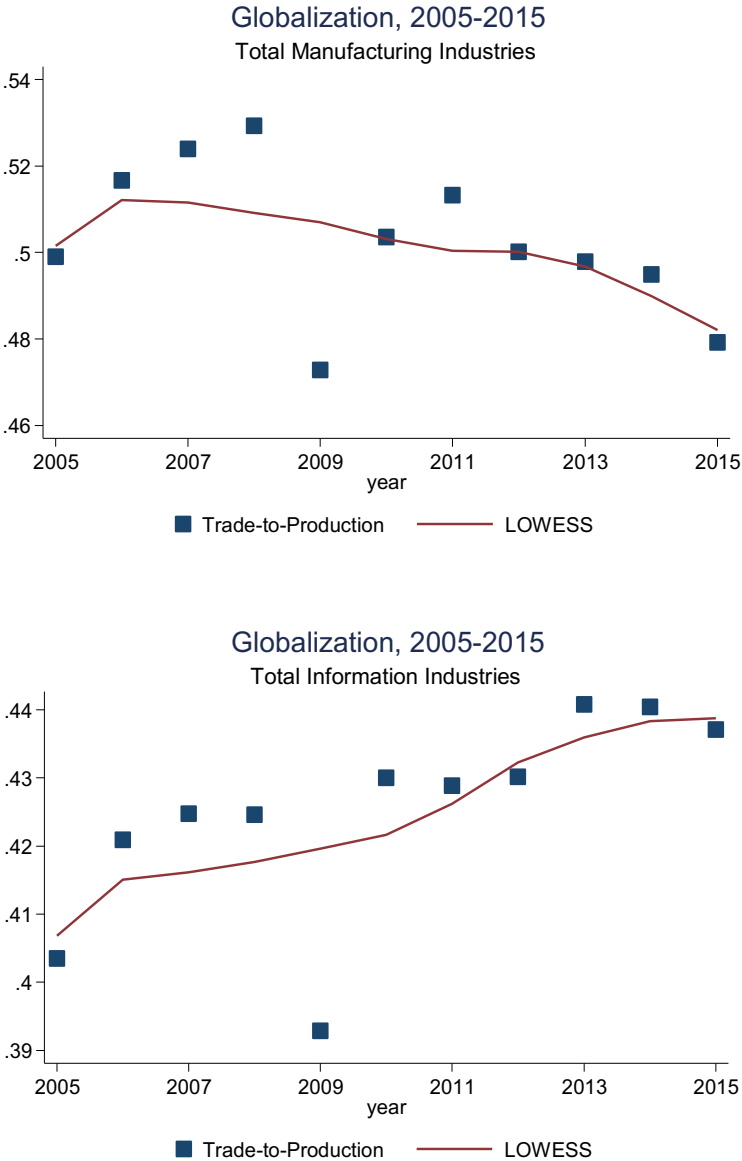
Source: Author's calculations using WTO-UNCTAD-ITC data.

## DIGITAL-BASED GLOBALISATION

Even though the pandemic will drive global trade to more digital services, deeper analysis suggests that in fact the very nature of globalisation was already heading into that direction. Before COVID-19, trade in goods and digital services, including digital goods,

showed diverging patterns. Figure 2 illustrates that as globalisation for manufacturing goods declined, globalisation based on digital information grew. Digital sectors, ranging from publishing and audio-visuals to telecom and IT, started to become more globalised. Trade elasticities, a technical indicator of the speed of globalisation, also reveal the different pathways of trade between goods and digital services (van der Marel 2020a).

**FIGURE 2 CHANGING NATURE OF GLOBALISATION: OLD AND NEW (2005-2015)**



Source: Author's calculations using OECD TIVA.

One may expect that digital globalisation would mainly benefit the richer parts of the world. Given their acquired digital technologies and knowhow, they are well-suited to take advantage of the shift towards digital services after COVID-19. However, research contradicts this belief, as trade cost reductions thanks to digital tools have been larger for poorer countries (e.g. Lendle et al. 2016). Costa Rica, Romania, Argentina and South Africa, for instance, all profited from the increase in digital services trade following the Global Financial Crisis (van der Marel 2020b). This suggests that this time too, both richer and poorer countries will be able to reap the benefits from digital services trade in the aftermath of the pandemic (e.g. Baldwin and Forslid 2020), provided they set their policies correctly.

### **DIGITAL TRADE POLICIES: THREE OUTSTANDING ISSUES**

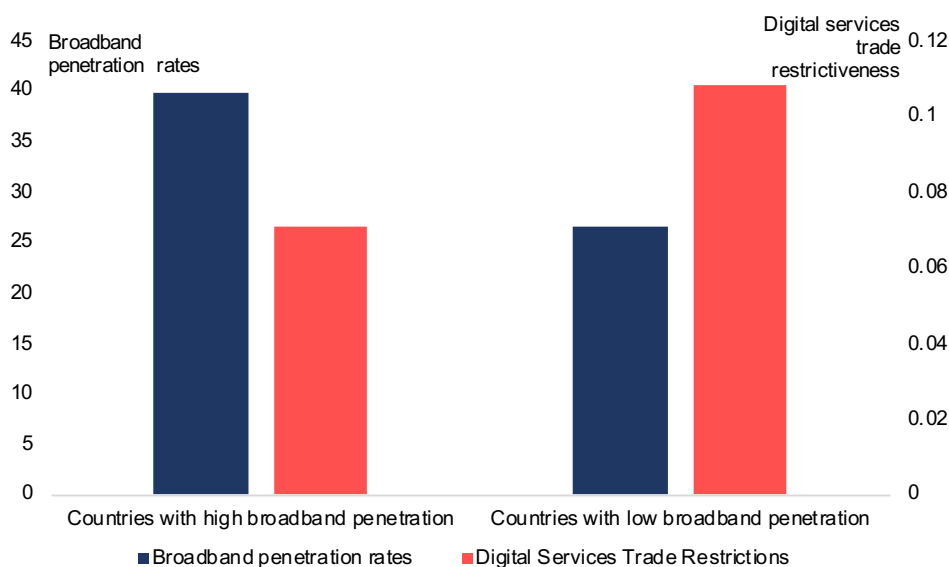
As digital globalisation progressively took shape before COVID-19, markets in digital services became increasingly restricted. The OECD's record of trade restrictions in digital services illustrates this broader picture. Since 2014, about 30% of the countries covered in the OECD data base have regressed in their digital services trade policies, and therefore digital opportunities to trade (OECD 2020). But there are more diverging policy trends in digital services trade among countries that need urgent attention. In some cases, these are new policy issues that have come to the surface along with the digital services trade expansion. Three issues come to mind.

#### **Telecommunication services**

First, countries should harness the benefits of the internet. Thankfully, broadband connections in most advanced countries have proved resilient during COVID-19. Even though fixed download speeds slowed for some countries, the spike in internet traffic was generally well-managed during the pandemic, particularly in countries with good broadband infrastructure. Given that demand for digital services will continue to grow rapidly post-COVID (think teleworking, videoconferencing, cloud computing, streaming services, online courses, and so on; e.g. Baldwin 2020), broadband connections will prove to become even more important for people and businesses.

Many parts of the world are still struggling to subscribe to broadband, however, due to a lack of basic infrastructure. This risks aggravating the digital divide after the pandemic. Trade policy can play its part in expanding the availability of broadband access. For instance, Figure 3 illustrates that OECD countries with greater trade restrictions in digital services also find themselves at the lower end of broadband connectivity. More formally, estimates show that countries with a one unit higher level of digital services trade restrictiveness exhibit, on average, lower fixed broadband penetration rates of around 30% (see the annex for a technical discussion). In many poor countries broadband prices remain too high, reflecting uncompetitive markets protected by high entry restrictions.

**FIGURE 3 COUNTRIES WITH HIGHER BROADBAND PENETRATION RATES HAVE LOWER DIGITAL SERVICES TRADE RESTRICTIONS (2019)**



Source: Author's calculations using OECD data. See Annex for technical details.

Restrictive measures picked up in the estimates cover burdensome rules related to digital services infrastructure and connectivity, as defined by the OECD. In particular, they cover restrictive telecom regulations related to interconnection prices and conditions, restrictions on the use of communication services, as well as localisation policies related to data. Some countries have also seen a setback in these restrictions in recent years, including Turkey, Saudi Arabia, India and Russia, in addition to other developed countries. As Figure 3 shows, reforming trade restrictions in these areas can play a significant role in ensuring that everybody profits from the likely shift into digital services.

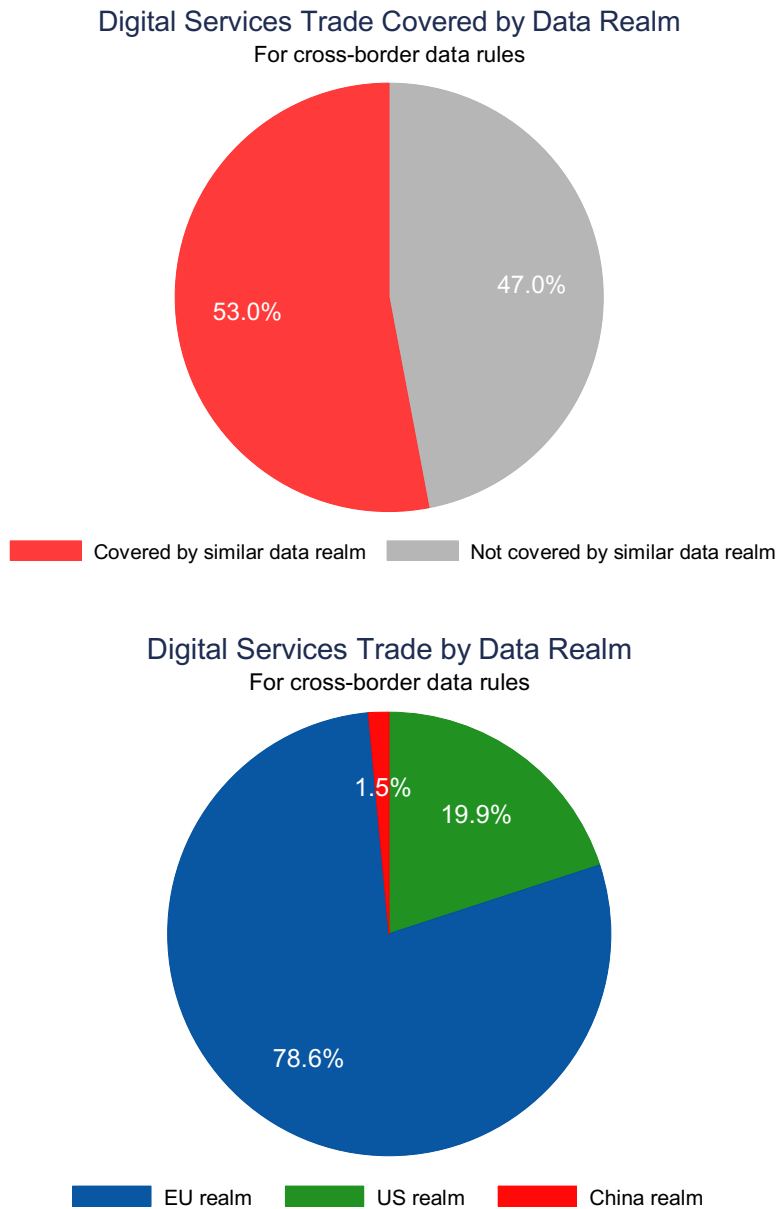
### Cross-border data transfers

Diverging policy patterns between countries also point to restrictions in data. An increasing number of countries have applied limits on the free movement of personal data. Restrictive rules regulating data come in many forms, and need to be balanced with privacy, (cyber) security and consumer protection regulations. Some countries require certain personal data to be stored within their own territorial borders; other countries prohibit the transfer of personal data to another country altogether. Yet others apply strict conditions before any transfer of personal data can take place. Of late, a debate on how to handle non-personal data has also come about.

As a result, regulations for personal data diverge widely between countries. It is nonetheless possible to identify three models globally. Based on their distinctive features, each model belongs to one of the major global rule-makers in this area – the US, the EU and China.

These three data realms have become references for many other countries when defining their rules to govern the cross-border transfer of data. Obviously, this diversity of data rules has resulted in a fragmented landscape, with stricter regulations typically having a greater impact on trade in digital services and firm performance (Ferracane et al. 2020, Ferracane and van der Marel 2018).

**FIGURE 4** SHARE OF DIGITAL SERVICES TRADE COVERED BY COUNTRIES SHARING SIMILAR DATA REALMS (2015)



Source: Authors' calculations using TiVA trade data. Note: Digital services trade covers ISIC Rev. 4 codes 45-82.

The upside, however, is that most digital services trade is governed by trading partners sharing a similar set of data rules. Of all existing country-pairs in the world that trade digital services, more than half have a common model of data rules in place (Figure 4). Trading partners overwhelmingly choose to opt for the data approaches developed by the EU and US. Both frameworks contain elements conducive to digital services trade. For instance, recent work shows that trading partners sharing the US model for cross-border data transfers usually exhibit greater digital services trade. Trade in digital services is also positively associated with country-pairs adopting the EU model for domestic data processing (Ferracane and van der Marel 2020).

This calls for the twin actions of introducing trade disciplines for cross-border data flows, but also promoting interoperability in privacy regulations. A coherent framework on data flows improves digital trade opportunities without necessarily compromising on non-trade-related public policy objectives. Additional complex rules on data privacy can complicate trade costs further, even though they have legitimate reason to exist. There is thus great value in using the WTO, possibly with another international organisation, to find common standards and approaches for regulatory cooperation in this area after COVID-19.

### **Taxing digital services**

In recent years, disagreements between countries over taxing digital services have also mounted, creating further trade frictions. Some countries advocate applying a revenue tax on companies providing digital flows across borders, called a Digital Services Tax (DST). The idea was launched on the European side with the aim of dealing with its lack of big tech giants, and has since attracted a lot of attention. The Europeans are not alone; other countries have since joined the club of admirers of this idea. India and Turkey have now adopted a tax on digital services, including on advertising, social media, and digital interface services; Brazil is currently contemplating a similar levy.

Although the tax looks appealing given that many tech companies are basically ‘footloose’ in the global economy, and are therefore believed to be escaping taxes, it is far from clear how trade rules would apply in this area. DSTs have elements that potentially suggest de facto discrimination and are therefore likely to go against trade agreements. For instance, many countries put a high revenue threshold on applicability of the DST, so that the tax essentially falls on foreign (often US) companies. A second issue is that in some cases, countries carefully craft out their own successful business models in digital services eligible for the tax. In short, to the extent that the tax discriminates against foreign firms, it acts like an ad valorem tax (Hufbauer 2018).<sup>3</sup> However, more research is needed on the trade impact of such a services tax.

<sup>3</sup> In a rare occasion - namely, India - rules prescribe an up-front distinction between resident and non-resident companies on which the tax is applied. Much will also depend on the extent to which countries have scheduled digital services commitments under the WTO's General Agreements on Trade in Services. The EU has broad market access and national treatment commitments in various digital services such as computer services, whereas India has made none in this area.

Another form of digital tax causing tensions between countries has also emerged. Since 1998, WTO members have agreed to maintain a ‘moratorium’, extended every two years, that imposes zero custom duties on electronic transmissions, including services such as software. However, some countries – such as India and South Africa – worry that the pace of digitalisation is rapidly eroding the chances for them to collect tariff revenue. Two recent studies illustrate, however, that imposing such a tax would be counter-productive; just like tariffs on goods, duties on digital transmissions causes the economic cost in the long run to likely overshadow the immediate gains from raising revenues (Lee-Makiyama and Narayanan 2019, Andrenelli and Lopez Gonzales 2019). Here, too, more research is needed.

### **TRADE COOPERATION IN THE DIGITAL ECONOMY**

During the time of rapid global digital trade expansion, governments have been quick to implement restrictions affecting digital services trade, too. Many of these restrictions are new, have occurred outside the realm of trade policy, and have been imposed by countries in a unilateral manner. They are causing increasing frictions between countries in the global economy. A number of WTO members are currently discussing how to solve some of these issues, as part of the ongoing e-commerce negotiations. Some observers note that the prospect of reaching a high-level WTO deal might prove challenging (Hufbauer 2019).

More problematic, however, is that many developing countries are not part of these discussions. This makes no sense for them, as they are potentially able to profit from the ongoing shift into digital services after COVID-19. As these negotiations continue, the WTO should align with other development organisations such as the World Bank to deal with the reasons why these countries do not participate. Institutional channels should be set up to manage the likely negotiation outcomes. Together, they should provide inputs that are relevant to the needs of those countries that are not at the negotiating table. But there is more that the WTO and its members can do.

#### **Provide transparency and analysis**

For starters, WTO members should first sort out what exactly is defined by digital trade. The Work Programme on Electronic Commerce identifies e-commerce in a broad manner, but the position of new types of digital exchange remain unclear. For instance, the WTO’s definition does not explicitly cover data flows. Similarly, WTO members disagree over what is covered by electronic transmissions over the internet. Defining digital trade would therefore be a major step forward – something that a group of trade experts also advised the G20 should be a first priority (Drake-Brockman et al. 2020).

Much unclarity also exists with respect to the trade impacts of regulations aimed at managing new digital flows. For instance, there is no good oversight yet of how exactly the various types of data restrictions inhibit digital services trade; nor of the best possible ways to safeguard privacy concerns. Neither is there a good understanding of how WTO



members could appropriately apply taxes without taxing their own trade productivity. On these items too, the WTO Secretariat, together with other trade experts in the field, could provide more analytical work. Ministers during the next Ministerial Conference (MC12) could establish a Working Group to examine the policy-induced spillovers affecting digital services trade.

At the very least, people inside the WTO should track and report timely data in this field, ensure much greater transparency of national policies to inform deliberations, and issue monitoring reports in these new policy areas. Existing tools already offer a glimpse – such as those at the OECD, the WTO as well as ECIPE – but they need to keep up with the speed at which governments are applying new restrictions. Moreover, given what is at stake for poorer countries in digital services trade after COVID-19, these tools also need to be expanded with many more WTO members. Then, with up-to-date policy information, the WTO Secretariat – possibly together with the IMF, the World Bank and the OECD – should carry out more impact analysis of these new policies that potentially affect new digital flows.

### **Bring in the regulators**

Ultimately, then, WTO members will have to negotiate on these matters, if proven to be trade discriminatory. That may turn out to be a difficult task for trade negotiations, not least because the digital technologies on which companies trade, and the overriding non-economic interests governments have, are complex (e.g. Mattoo and Meltzer 2018). Trade negotiators are unlikely to have good supervision of how certain trade-related aspects of privacy, cybersecurity and consumer protection can have a knock-on effect on countries' non-economic objectives. They may also have to shake off their traditional negotiating mindset in these difficult areas. It would therefore be valuable to bring these trade officials to the table together with their respective regulators.

A new Committee on Digital Services Trade could serve as a forum dedicated to dialogue between governments, figuring out the systemic implications of new regulatory policies affecting digital services trade. Together with regulators, the Committee could carry out discussions on issues related to countries' prevailing concerns, single out best practises, and eventually put forward proposals or recommendations for consideration by the Council. Similar to the Committee on Trade in Financial Services, it would provide the necessary get-together for technical discussions, as well as the needed examinations of the regulatory developments of digital technologies and regulations impacting digital services trade.

### **Meanwhile...**

Meanwhile, WTO members could go forward with existing tools. For instance, only 80 countries have signed the Reference Paper that forms part of the GATS Agreement on Basic Telecommunications. Tellingly, some countries (such as India and Turkey) that

are still imposing restrictions related to interconnection fees (as stated above) have only partially signed the Reference Paper – the purpose of which is to identify best practise in this area. That said, the GATS itself, an agreement that pre-dates the internet era, also creates much confusion over what is actually covered in a period after huge technological changes in telecom markets, and in which new services such as cloud computing have appeared. The WTO could set up a Working Party to consider how to update the current framework and provide their thoughts before MC12.

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## ANNEX

Higher levels of digital services trade restrictions in countries are significantly associated with lower total fixed broadband penetration levels. To measure this negative correlation, equation (1) shows how this is estimated through simple regressions as correlations with fixed effects. More specifically, the following equation is estimated:

$$\ln(\text{BB Pen})_{ct} = \Phi + \theta(\text{DSTRI})_{ct} + \text{Controls}_{ct} + \delta_c + \gamma_t + \varepsilon_{ct} \quad (1)$$

where BB Pen refers to broadband penetration rates by country ( $c$ ) and year ( $t$ ), measured as the log of fixed broadband subscriptions per 100 inhabitants. Data are taken from the OECD. The term DSTRI denotes the OECD’s Digital Services Trade Restrictiveness Index which covers restrictions in digital services trade. The DSTRI is composed of several sub-components. Here the component of Infrastructure and Connectivity is taken covering for the trade restrictions as described in the text (Ferencz 2019). The estimation also includes several control variables such as economic development (GDP per capita in constant US dollars) and the size of the country (population, total). Data to estimate equation (1) covers the years 2014 till 2019, the latest year available. Fixed effects are applied by country ( $\delta_c$ ) and year ( $\gamma_t$ ). Finally,  $\varepsilon_{ct}$  is the residual term.

Table A1 reports the baseline results (columns 1-2), and also shows the result when a one-year lag is applied (columns 3-4). In all cases, the variable measuring fixed broadband penetration rates has a significant and negative coefficient result. This indicates that higher levels of digital trade restrictiveness related to digital infrastructure and connectivity is associated with lower levels of total fixed broadband penetration rates across countries. Given that the data are taken from the OECD, these countries cover mostly developed economies in addition to several bigger emerging economies. Note that data on the specific restrictions under the category of infrastructure and connectivity

covered by the DGSTRI variable are much harder obtain for developing countries. Note as well that the results presented in Table A1 and the text can only be seen as associations, not causations, given the obvious endogeneity concerns.

**TABLE A1 REGRESSION RESULTS FOLLOWING EQUATION (1)**

	(1)	(2)	(3)	(4)
	BB Pen	BB Pen	BB Pen	BB Pen
			1-year lag	1-year lag
DSTRI Infrastructure and Connectivity	-0.404** (0.019)	-0.401** (0.018)	-0.290** (0.037)	-0.289** (0.034)
Controls	No	Yes	No	No
FE Country	Yes	Yes	Yes	Yes
FE Year	Yes	Yes	Yes	Yes
Observations	222	222	185	185
R2	0.988	0.988	0.991	0.991

Note: \* p<0.10; \*\* p<0.05; \*\*\* p<0.01. Robust standard errors are clustered at the country-year level.

## ABOUT THE AUTHOR

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