

Digital Trade Review of Brazil

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DIGITAL TRADE: BUILDING A COMPETITIVE REGULATORY
ENVIRONMENT FOR LATIN AMERICA AND THE CARIBBEAN

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Aim of the Digital Trade Review

To examine the specific challenges and opportunities that the digital transformation raises for Brazil's trade.

Outline of presentation:

1. Mapping Brazil's participation in digital trade
2. Economic impact of joining the Information Technology Agreement
3. Identifying the policy environment affecting digital trade
4. Enabling Brazilian firms to export in the digital era
5. Policy recommendations

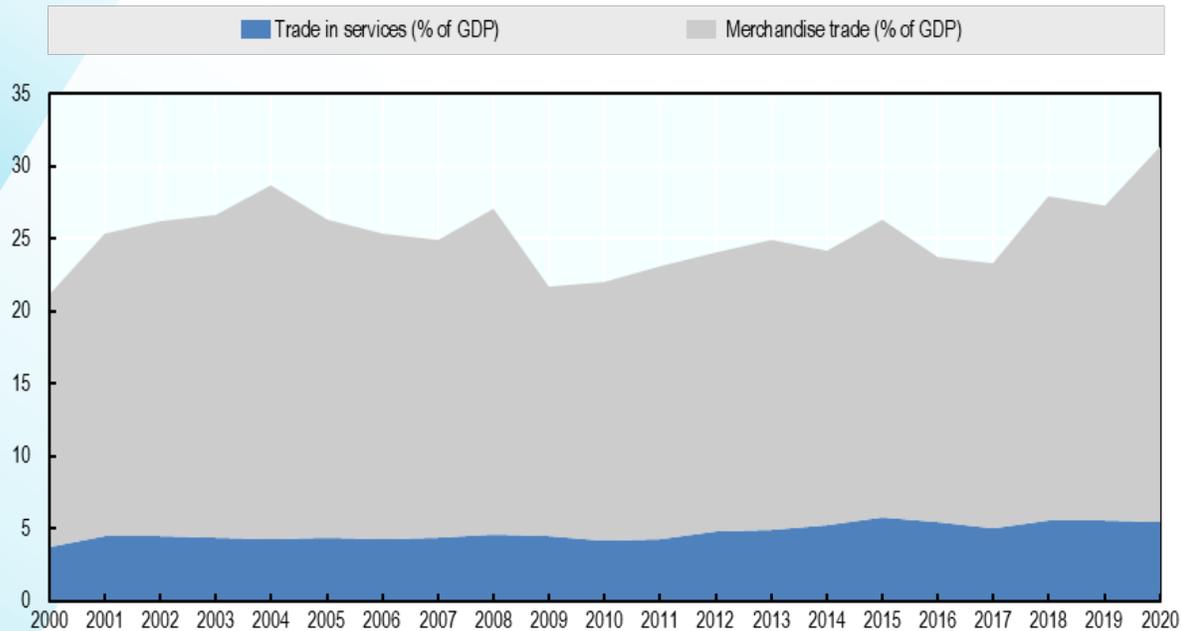


Mapping Brazil's participation in digital trade

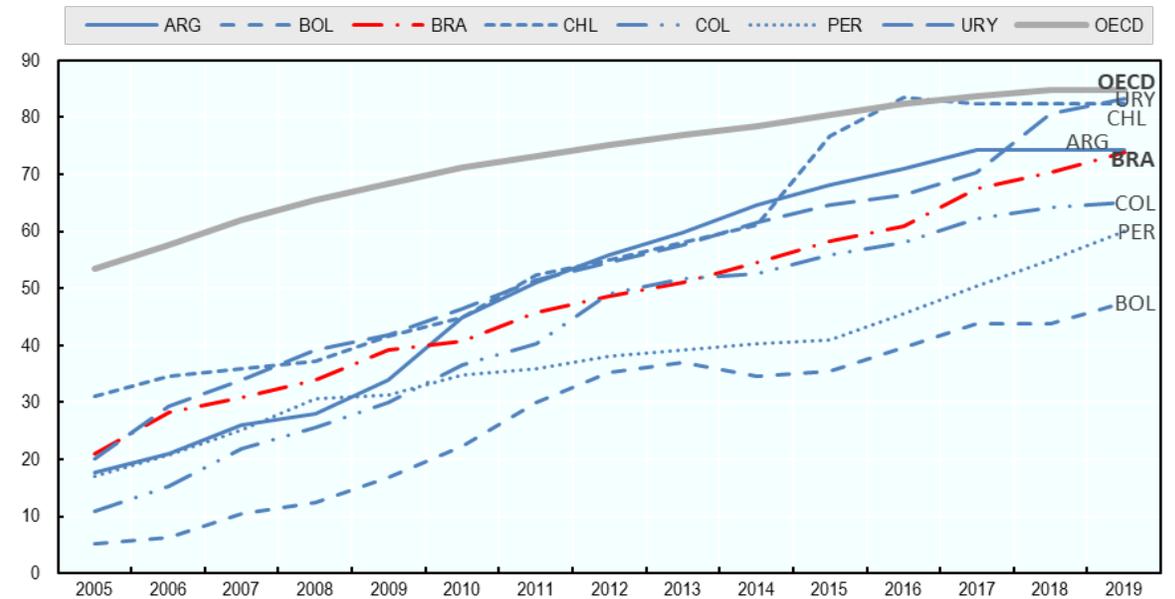


Brazil has a strong potential to benefit from digital trade

Trade is an important share of Brazil's GDP (30% in 2020)



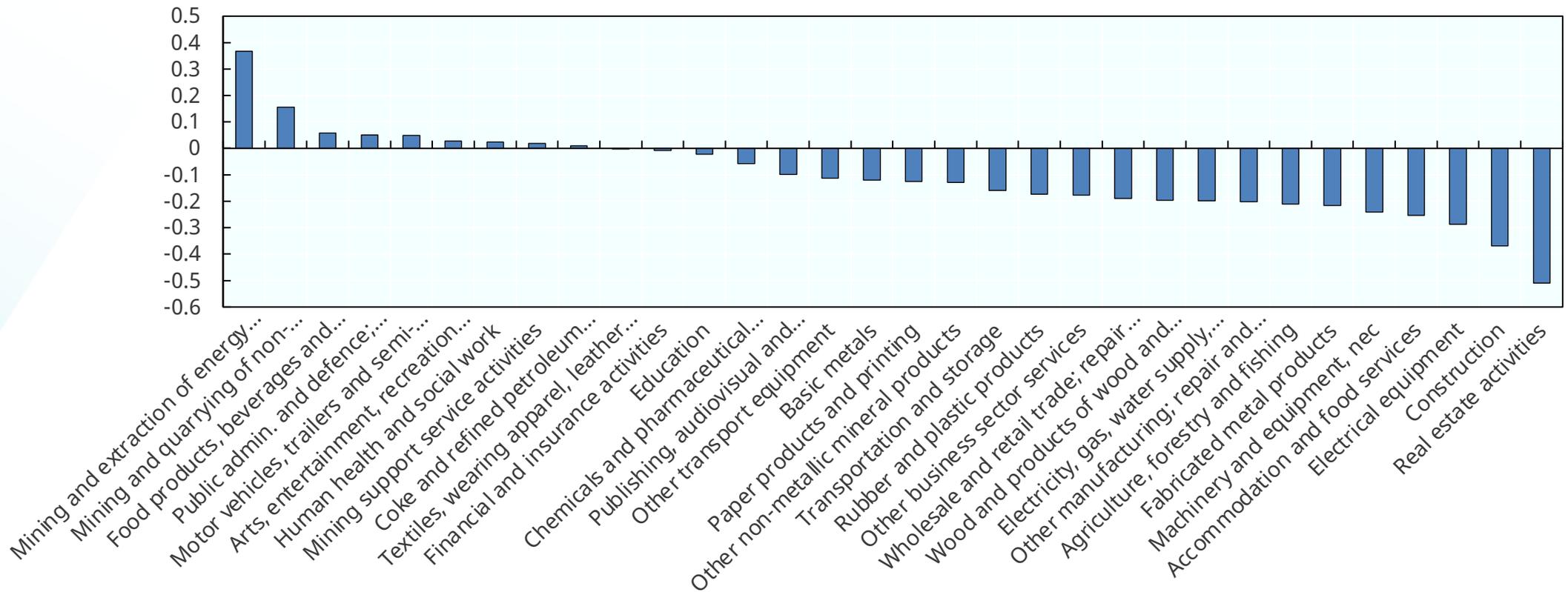
Brazil has tripled the number of people connected to the internet in 15 years





However, use of ICT goods and services remains low across most sector of the economy

Use of ICT inputs in non-ICT exports relative to the rest of the world

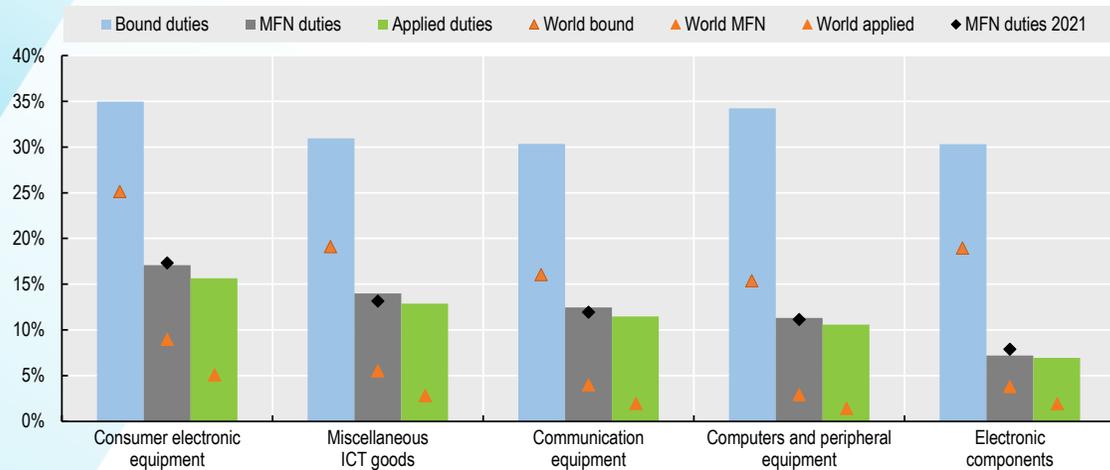


Note: The figure shows the share of ICT goods and services inputs used by Brazil divided by the share of ICT goods and service inputs used by the rest of the world across a range of sectors. Positive values identify a higher use of ICT inputs by Brazil than other countries. ICT inputs are ICT goods (ISIC rev 4 sector 26) and ICT services (ISIC rev 4 sectors 61 to 63). Source: Own calculations based on OECD TiVA database (2018).

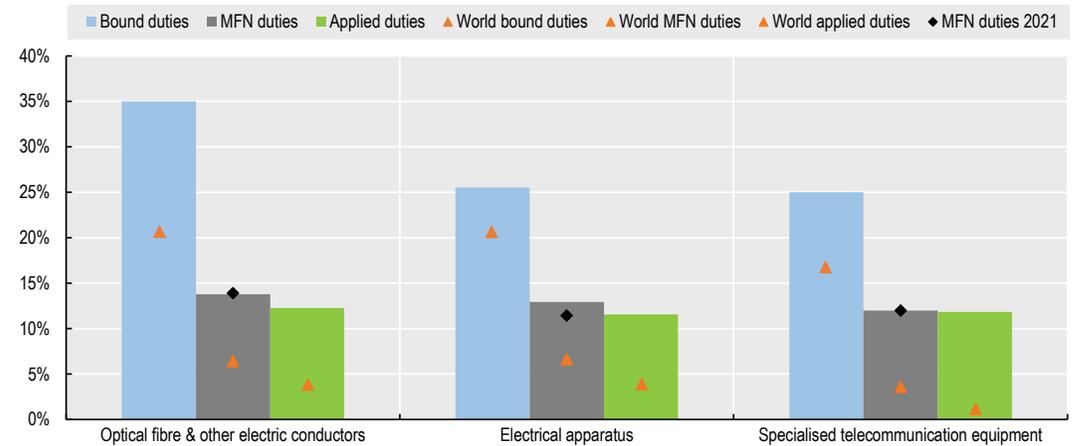


This is partly because tariffs (and NTMs) on ICT and digital infrastructure goods remain high

Tariffs on ICT goods



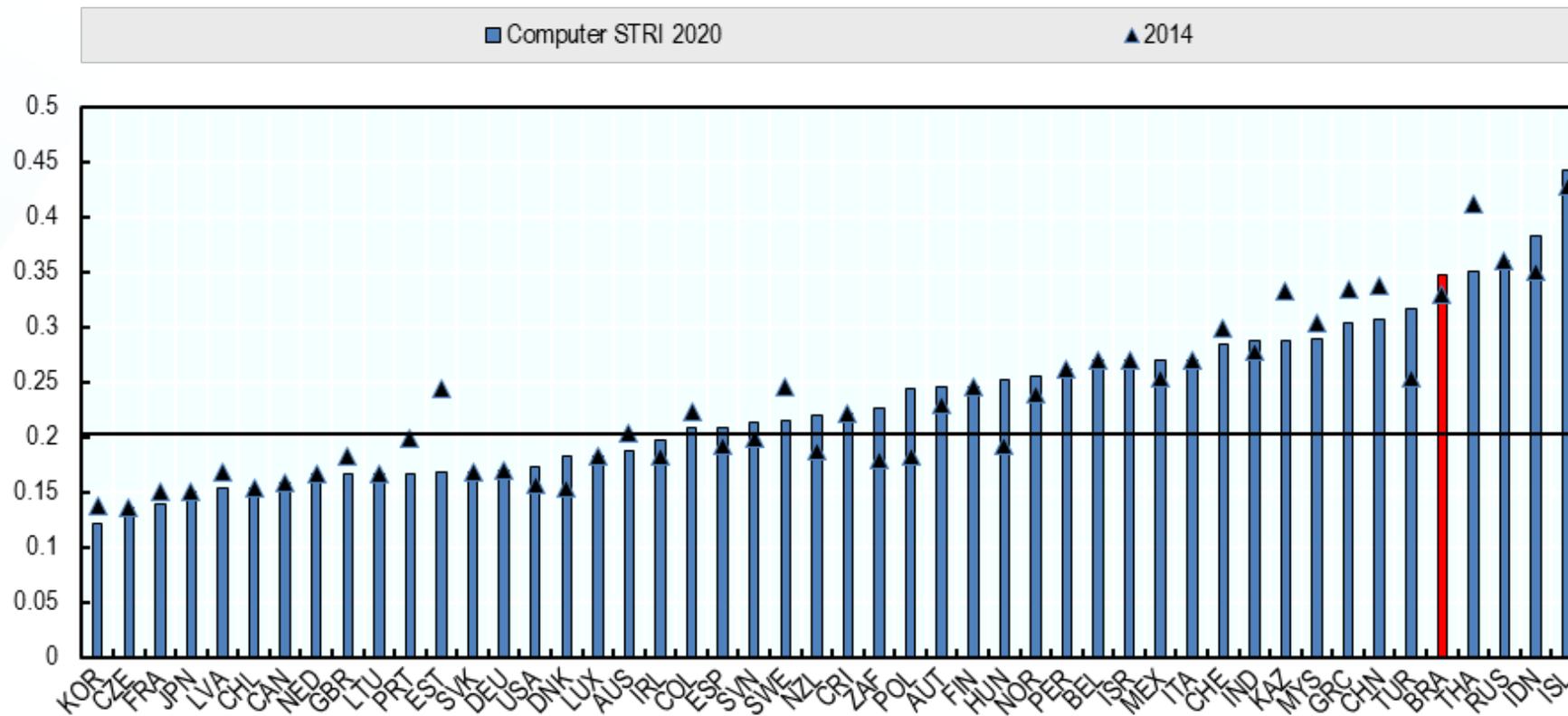
Tariffs on digital infrastructure goods





Services that underpin access and use of digital solutions also remain subject to barriers

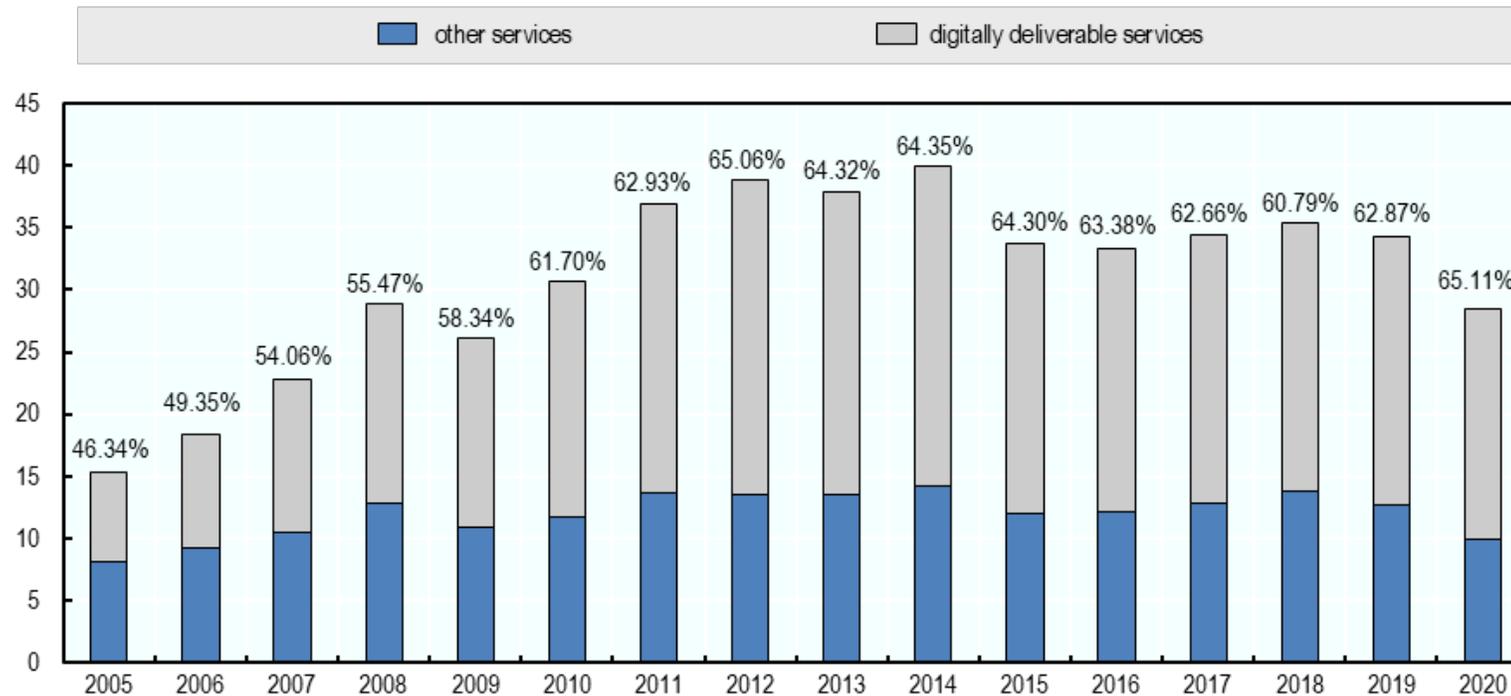
OECD Services Trade Restrictiveness Index for computer services (2014-2020)





Still, digitally deliverable services represent an important and growing share of Brazil's exports

- Digitally deliverable services have grown to represent 65% of Brazil's services exports in 2020 (up from 47% in 2005).
- The main export destinations are non-regional partners and involve professional, technical and business services and information technology services

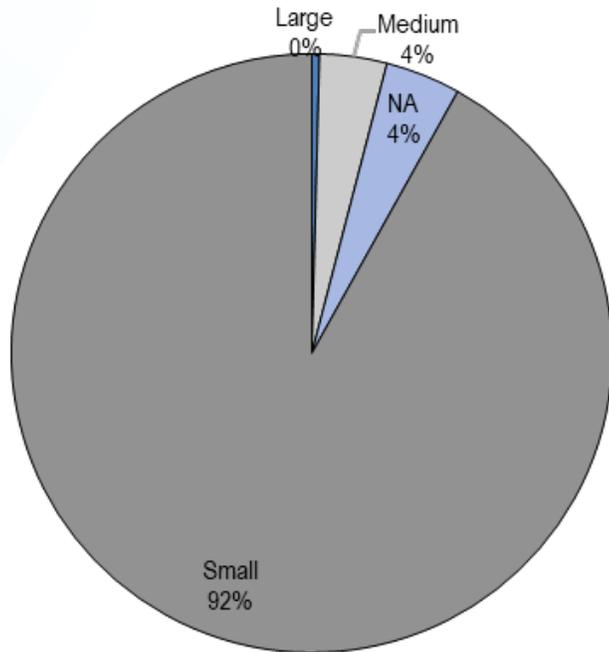




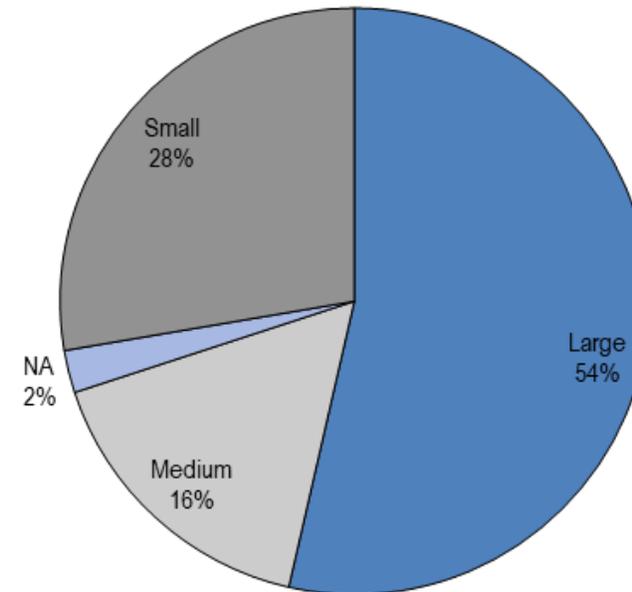
Trade in parcels can be an important channel for SME exports

Since 2014, the number of firms exporting using postal delivery increased nearly 6-fold with an even higher increase in the value of this trade (nearly 9-fold).

Share of export value via post



Share of export value via other means



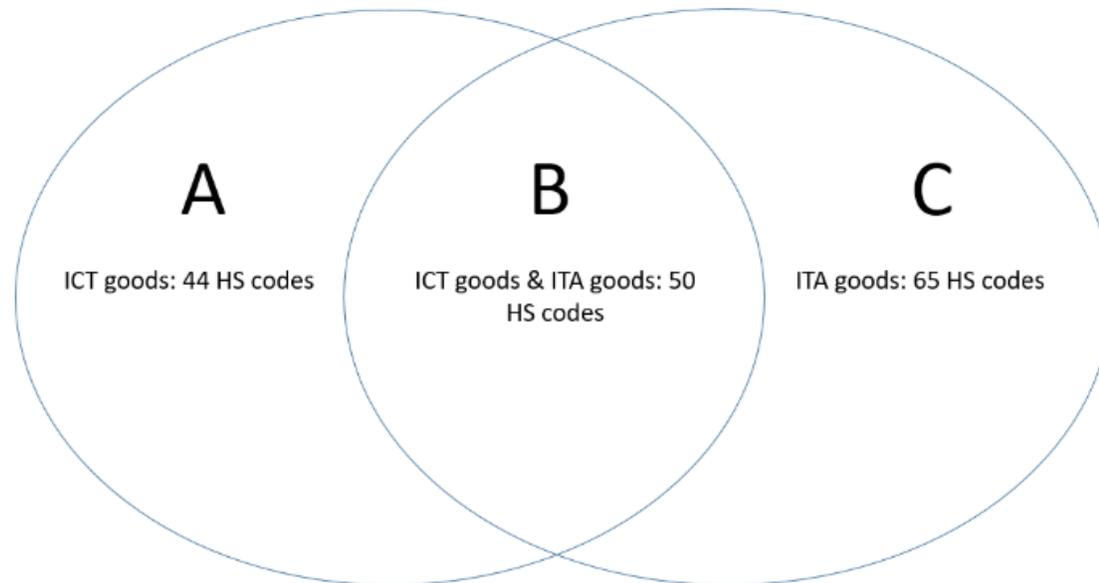


The economic impact of joining the ITA



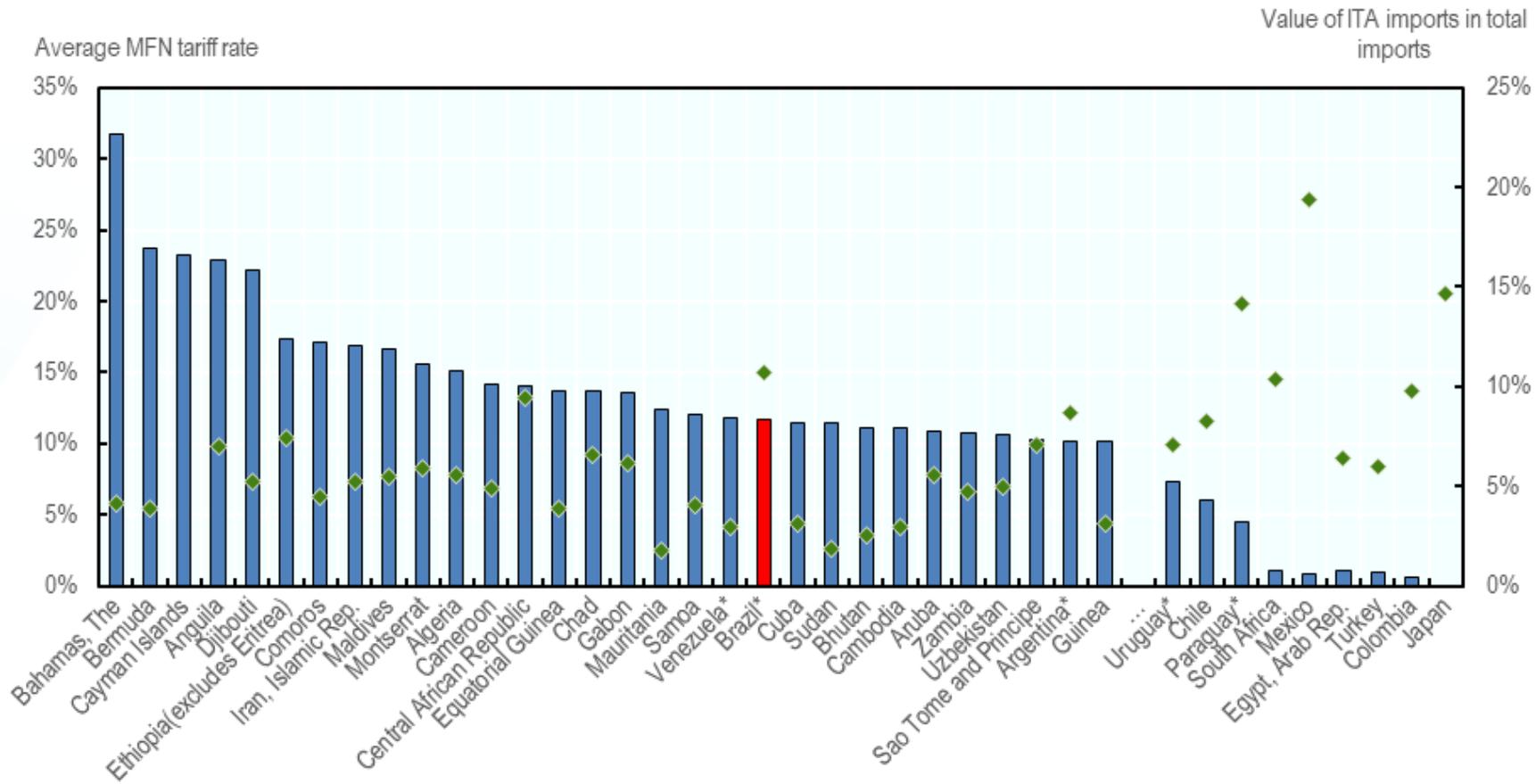
ICT goods slightly differ from ITA goods, although there is significant overlap

The Information Technology Agreement (ITA) sets tariffs to zero on some IT goods



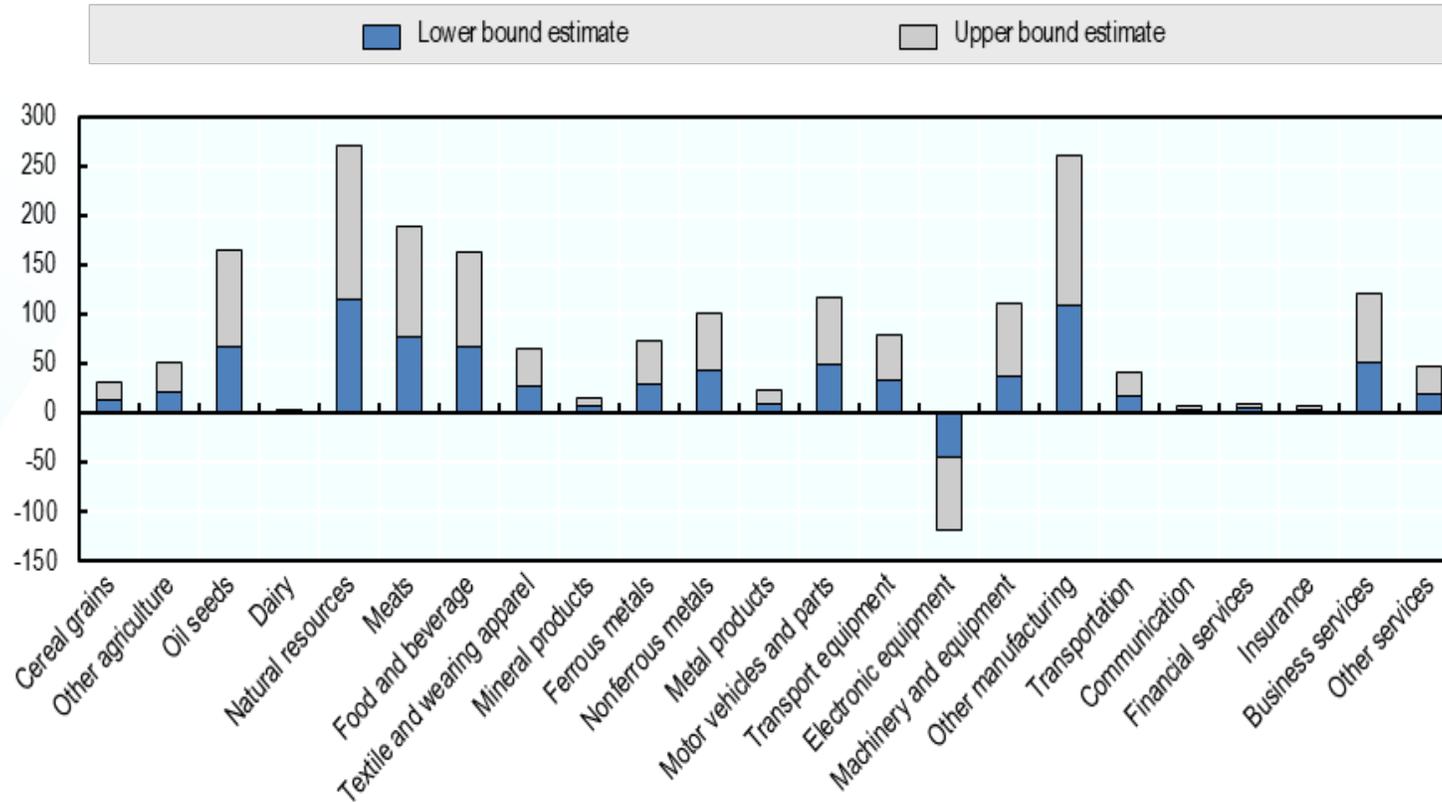


Brazil maintains relatively high tariffs on ITA goods despite being a large importer





ITA accession would result in horizontal gains in export competitiveness, including for manufacturing and services sectors



ITA membership can promote ICT-use, lead to value added gains in most sectors and contribute to export diversification.

But it can also lead to customs revenue losses which will require consideration

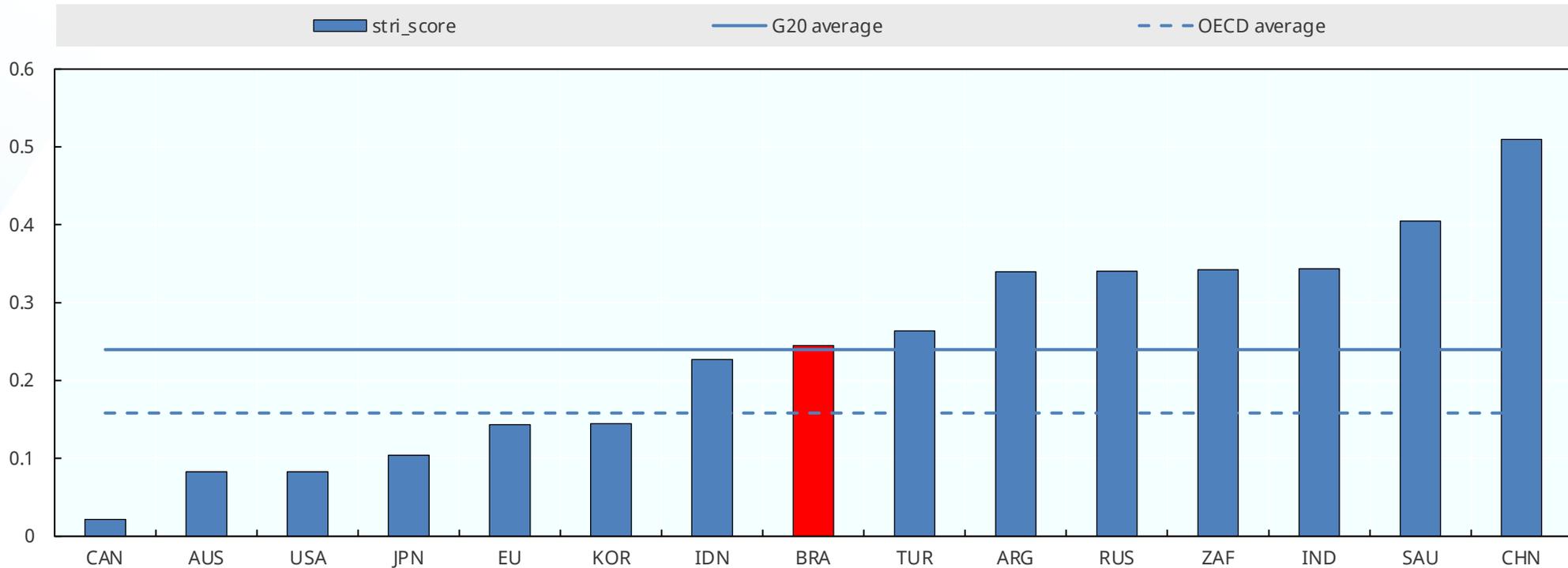


Identifying the policy environment affecting digital trade



Regulatory bottlenecks can undermine cross-border digital trade in Brazil

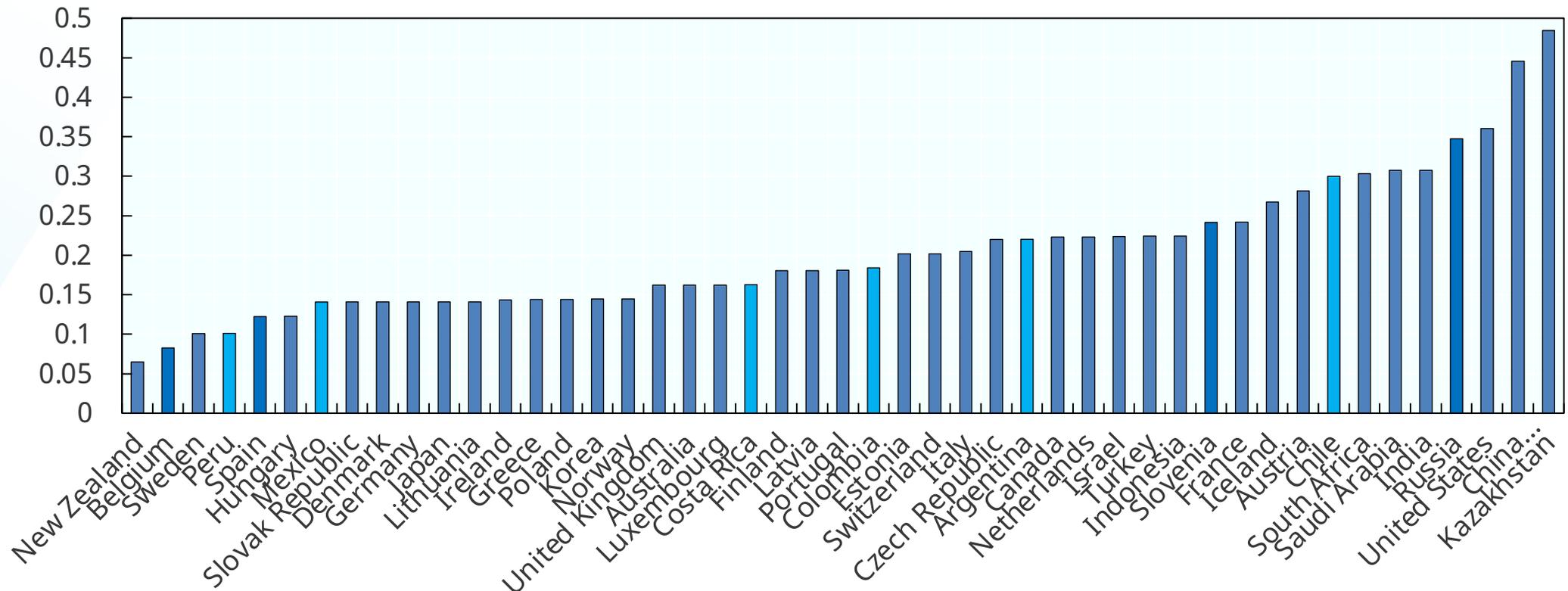
OECD Digital Services Trade Restrictiveness Index, 2020





The regulatory environment for digital trade differs from that of regional trade partners'

Digital STRI Regulatory heterogeneity indices for Brazil, 2020

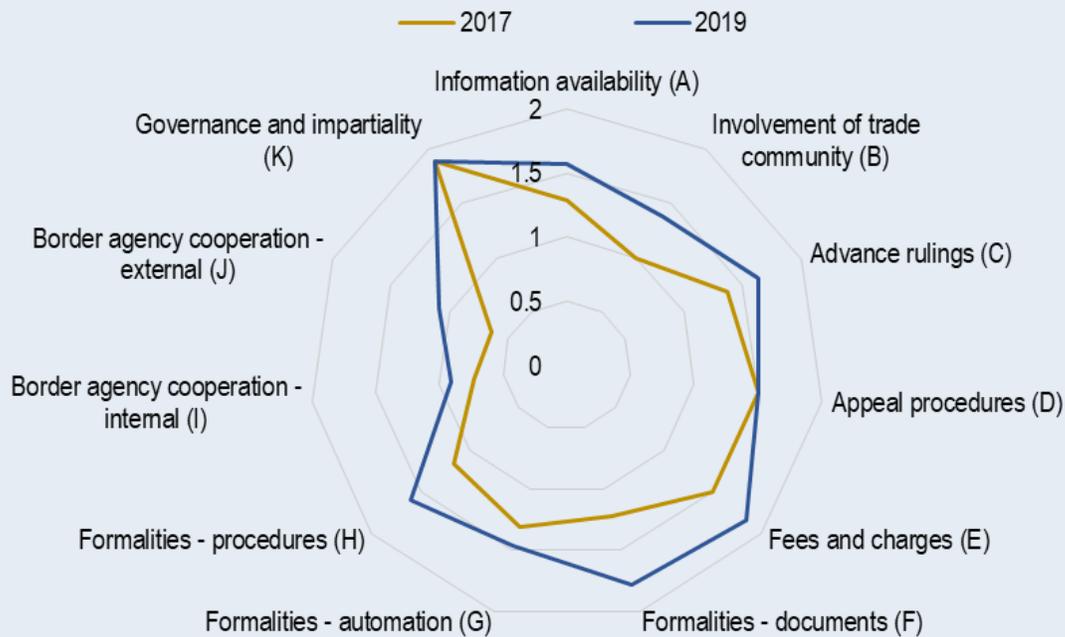


Note: The indices show the level of regulatory heterogeneity between Brazil and each country in the figure. Lower index values indicate closer regulatory similarity whereas higher index value show more regulatory heterogeneity.



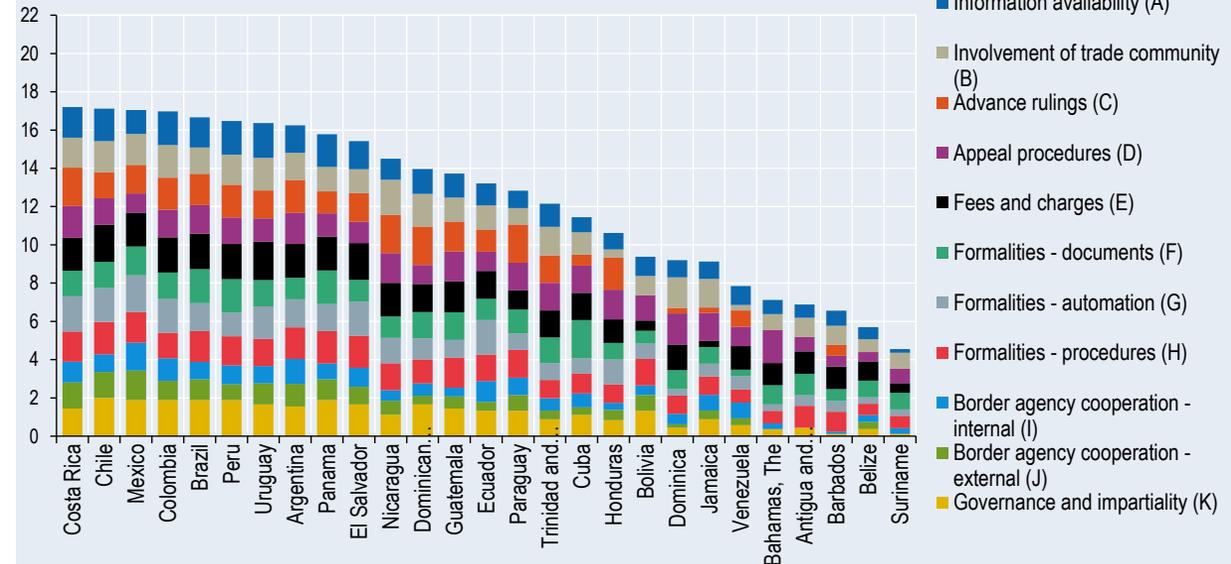
Brazil has made good progress on trade facilitation and is a top performer in the region

Brazil's TFI (2017-2019)



Brazil relative to other LAC countries (2017-2019)

TFI indicator (2=maximum performance by area)





Brazil is increasingly active in digital trade and e-commerce discussions,

Brazil is an active participant in the ongoing WTO Joint Statement Initiative discussions on e-commerce, making proposals on various issues

However, in its bilateral agreements, Brazil has a limited number of provisions on digital trade issues.

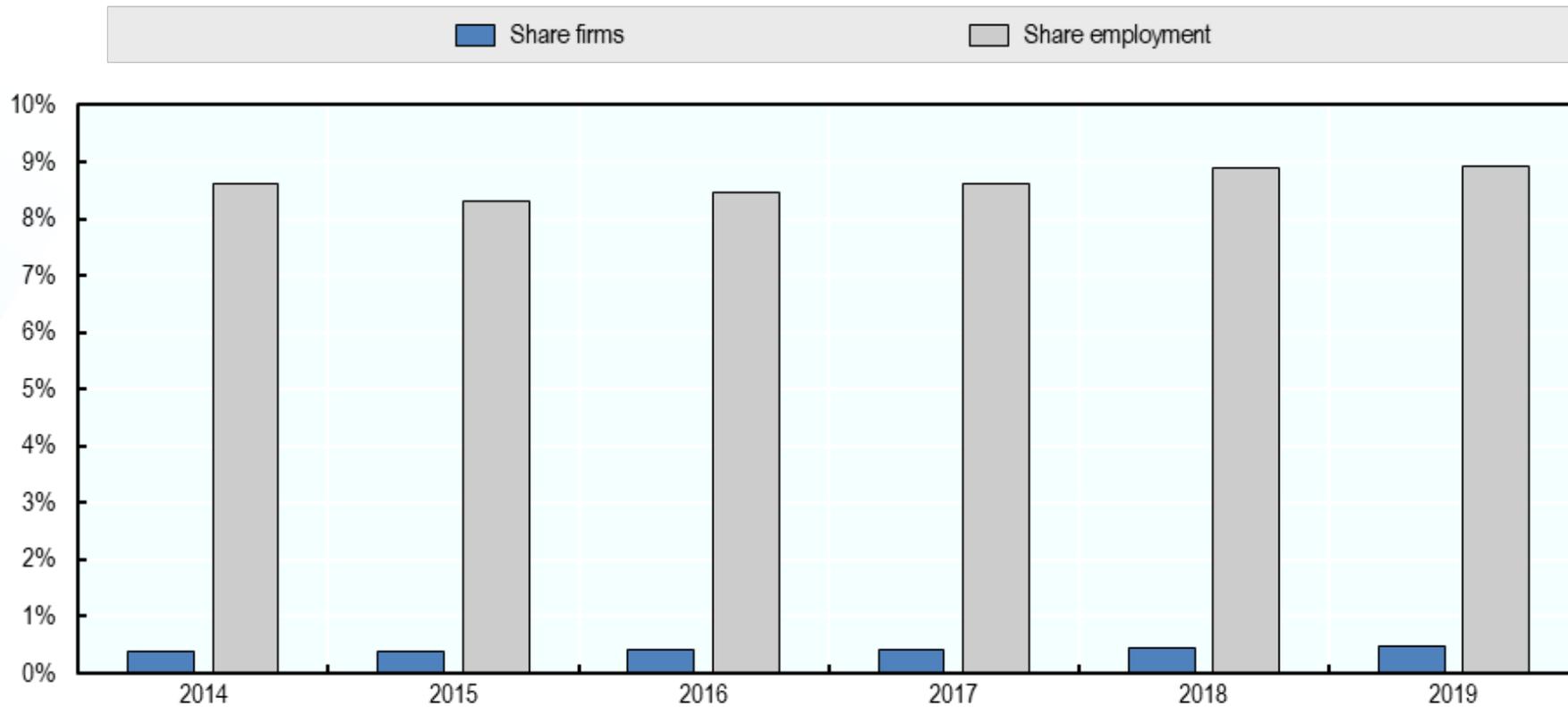
Nevertheless, Brazil has recently begun incorporating digital trade provisions (Chile, Mercosur)



Enabling Brazilian firms to export in the digital era



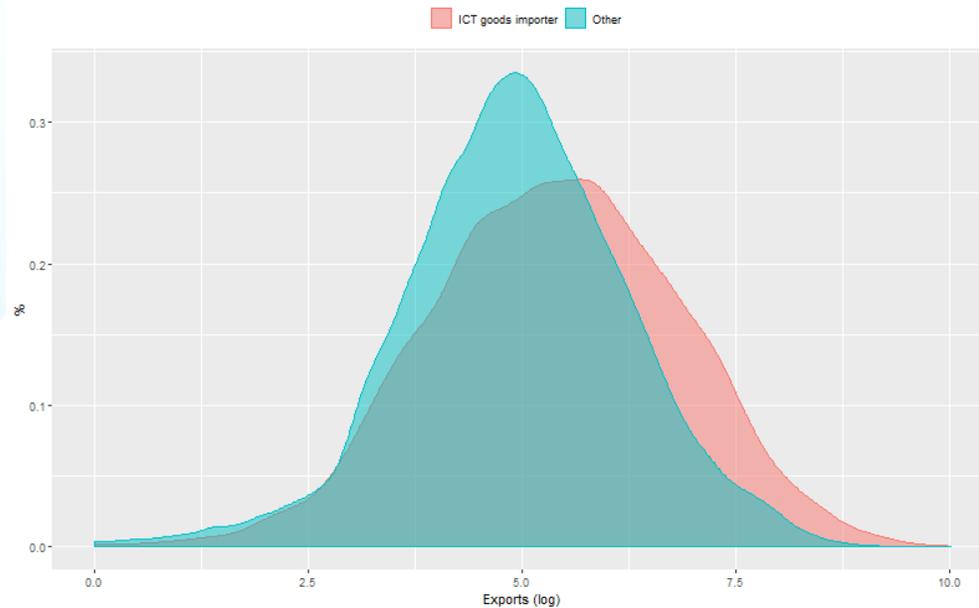
Very few firms engage in trade but they employ a disproportionate amount of workers



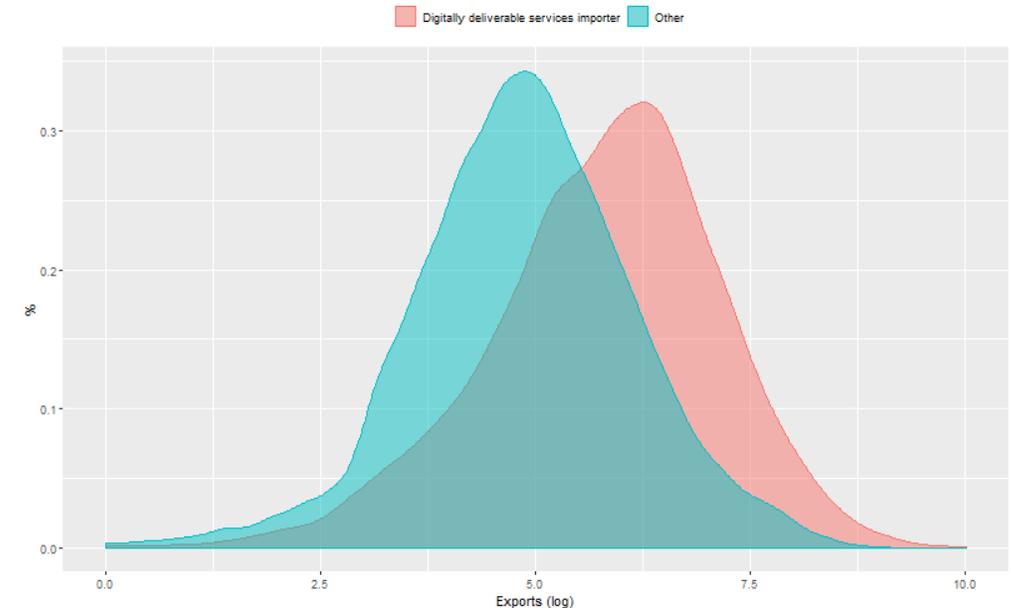


Firms that import ICT goods and services tend to export more

ICT goods importers



Digitally deliverable services importers



This is also supported by the econometric exercise but impact most pronounced for firms selling goods



Digital services restrictions reduce services exports of Brazilian firms

Table 5.5. Digital services restrictions reduce services exports of Brazilian firms

	All services	DD services	Non-DD services
Digital STRI	-3.776*** (0.8037)	-5.127*** (0.9408)	-1.807** (0.6673)
Employees (log)	-1.72e-8 (1.84e-8)	-9.91e-12 (8.7e-9)	8.73e-8 (1.08e-7)
Contiguity	1.637* (0.8270)	2.103* (0.8931)	0.2188 (0.4033)
Common language	-0.0340 (0.5074)	0.1214 (0.7197)	-0.1882 (0.2206)
Common currency	-1.578* (0.6358)	-2.222** (0.8301)	-0.8528 (0.7802)
Common religion	-0.2308 (0.3219)	-0.2792 (0.4419)	0.0373 (0.2858)
Common legal origins (pre 1991)	0.6542 (0.3425)	0.9329 (0.5011)	0.4482 (0.3172)
Common legal origins (post 1991)	-0.9628*** (0.2730)	-1.097* (0.4338)	-1.107*** (0.1541)
FTA	0.1222 (0.4042)	0.3321 (0.5763)	-0.1059 (0.2842)
GDP of partner country (log)	0.4576*** (0.0995)	0.5483*** (0.1252)	0.3322** (0.1184)
Distance (log)	-1.153** (0.3658)	-1.360** (0.4900)	-0.8487* (0.3726)
Year-Firm-Sector – FE	YES	YES	YES
Product – FE	YES	YES	YES
Observations	409,595	130,856	278,555
Pseudo R2	0.80	0.76246	0.86

Note: Analysis using detailed firm level data from 2014 to 2019, robust standard errors clustered at firm level (*** $p < 0.010$; ** $p < 0.05$; * $p < 0.10$).
Source: Authors' calculations.



Especially smaller firms exporting digitally deliverable services

Table 5.7. Smaller firms exporting digitally deliverable services are most impacted by digital trade obstacles abroad

	Large	Medium	Small	Micro
Digital STRI	-4.446*** (0.8306)	-3.999*** (0.9607)	-5.646*** (1.221)	-4.174*** (1.092)
Employees (log)	-4.29e-6 (0.0011)	8.5e-6 (0.0002)	-2.74e-8 (1.22e-7)	-4.97e-7 (8.59e-7)
Contiguity	2.247* (0.9628)	0.0467 (0.3624)	0.3550 (0.5822)	-1.35* (0.6442)
Common language	0.4644 (0.9860)	-0.6118 (0.3142)	-0.0759 (0.3254)	-1.112* (0.4381)
Common currency	-3.241** (1.206)	-0.5661 (0.7144)	-0.5151 (1.209)	-2.422 (1.554)
Common religion	-0.1029 (0.7607)	-0.1289 (0.4153)	-0.2494 (0.3416)	-0.2309 (0.3769)
Common legal origins (pre 1991)	0.6728 (0.7618)	1.851*** (0.3341)	0.9903* (0.4227)	-0.1029 (0.6684)
Common legal origins (post 1991)	-1.068 (0.5966)	-1.834*** (0.2222)	-0.5656532	0.2461 (0.6161)
FTA	0.2018 (0.7508)	0.6207 (0.7486)	0.6144 (0.7077)	-1.045* (0.5264)
GDP of partner country (log)	0.6815*** (0.1681)	0.3795*** (0.0493)	0.3827*** (0.0577)	0.2967*** (0.0593)
Distance (log)	-1.901** (0.6371)	-0.4355 (0.3163)	-0.2097 (0.5343)	-1.035** (0.3466)
Year-Firm-Sector – FE	Yes	Yes	Yes	Yes
Product – FE	Yes	Yes	Yes	Yes
Observations	34,004	32,072	32,685	32,091
Pseudo R2	0.74955	0.78971	0.82544	0.85131

Note: Analysis using detailed firm level data from 2014 to 2019, robust standard errors clustered at firm level (*** p<0.010; ** p<0.05; * p<0.10).

Source: Authors' calculations



**What are the main
takeaway lessons?**



How can Brazil leverage the digital transformation to empower its firms and consumers in the digital age?

Continue reducing **tariff and non-tariff barriers to ICT goods,**

- This will ensure that firms and individuals can access the goods they need to take advantage of digital networks at lower cost.

Continue ongoing **process of regulatory reform**

- Help consumers access digital networks by reducing barriers to telecommunication and computer services
- Enable more trade in parcels by reducing measures affecting courier and transportation services
- Ensure that the General Data Protection Law continues to provide balanced approach fostering regulatory certainty



How can Brazil leverage the digital transformation to empower its firms and consumers in the digital age?

Continue being active in international digital trade and e-commerce discussions.

- Pillar in the WTO JSI discussions
- More could be done to pursue digital trade provisions in trade agreements (with recent good progress with EU, Chile and Mercosur).

Continue efforts to bridge digital divides within Brazil to ensure that benefits of digital trade can be shared more inclusively.



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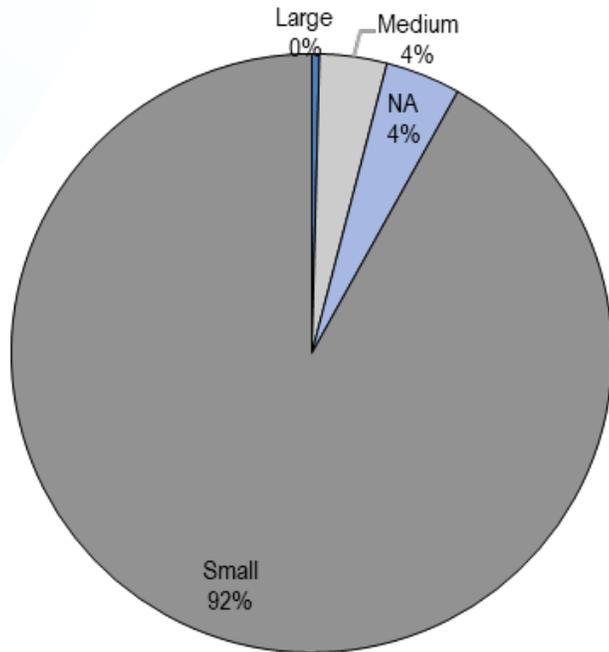
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Trade in parcels can be an important channel for SME exports

Since 2014, the number of firms exporting using postal delivery increased nearly 6-fold with an even higher increase in the value of this trade (nearly 9-fold).

Share of export value via post



Share of export value via other means

