



### Computer Services 2023

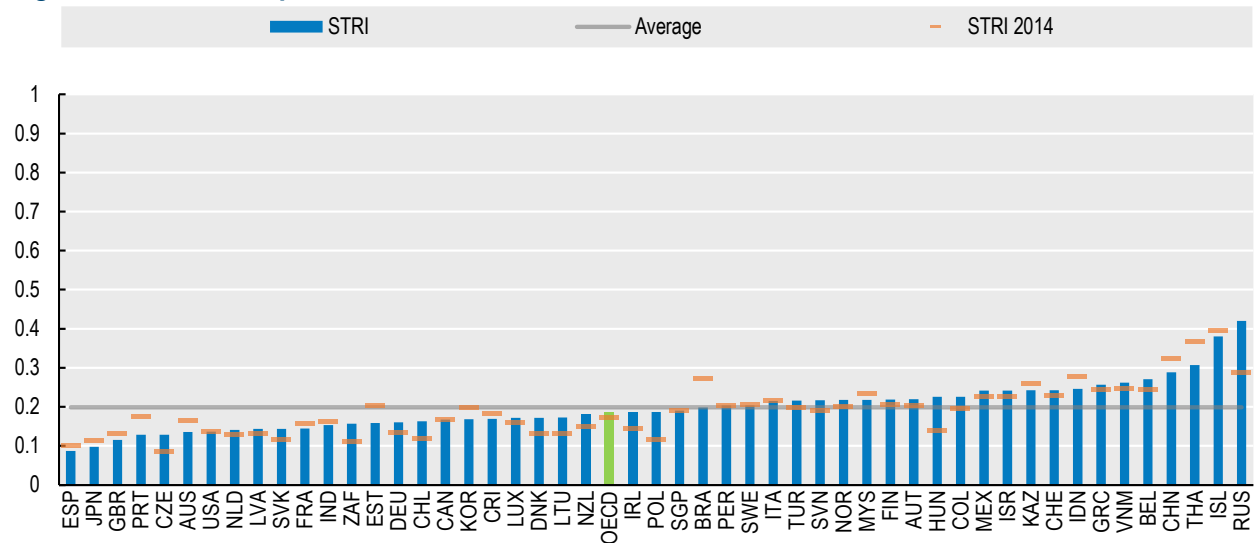
#### Key findings

- The average 2023 STRI in the computer services sector is 0.20 out of a maximum of 1 (most trade restricted) indicating a relatively low overall level of restrictiveness. However, individual country scores diverge considerably, ranging between 0.09 and 0.42.
- The best performing countries in the sector are Spain, Japan and United Kingdom. Most reforms in 2023 were recorded in Korea, Spain, and China.
- In this sector, barriers related to restrictions to the movement of people and are the most prominent in OECD economies, amounting to 37% of all restrictions. In non-OECD economies, restrictions on foreign entry are relatively more prominent, representing 44% of all restrictions.
- OECD estimates suggest that halving the distance to best practice in this sector is associated with a reduction in the costs of cross-border trade in computer services between 5% and 11% for the average country included in the STRI database.

Computer services are defined as computer programming, consultancy and related activities and information service activities (ISIC Rev 4 codes 62 and 63). Major exporters are the European Union, India, and the United States. The importance of computer services has grown significantly in the past decades driving the development of a data-driven global economy. Computer services are mainly traded business to business. Supply of services across borders is prominent in this sector, especially as the quality of the communication infrastructure improves worldwide. Nonetheless, cross-border supplies are often complemented with technical expertise for installation, use and maintenance requiring travel for computer engineers and other technical experts.

The 2023 STRIs in the computer services sector range between 0.09 and 0.42, with a sample average of 0.20 (Figure 1). There are 27 countries below and 23 countries above the average. The best performing countries in the sector are Spain, Japan and United Kingdom.

Figure 1. STRI in computer services, 2023

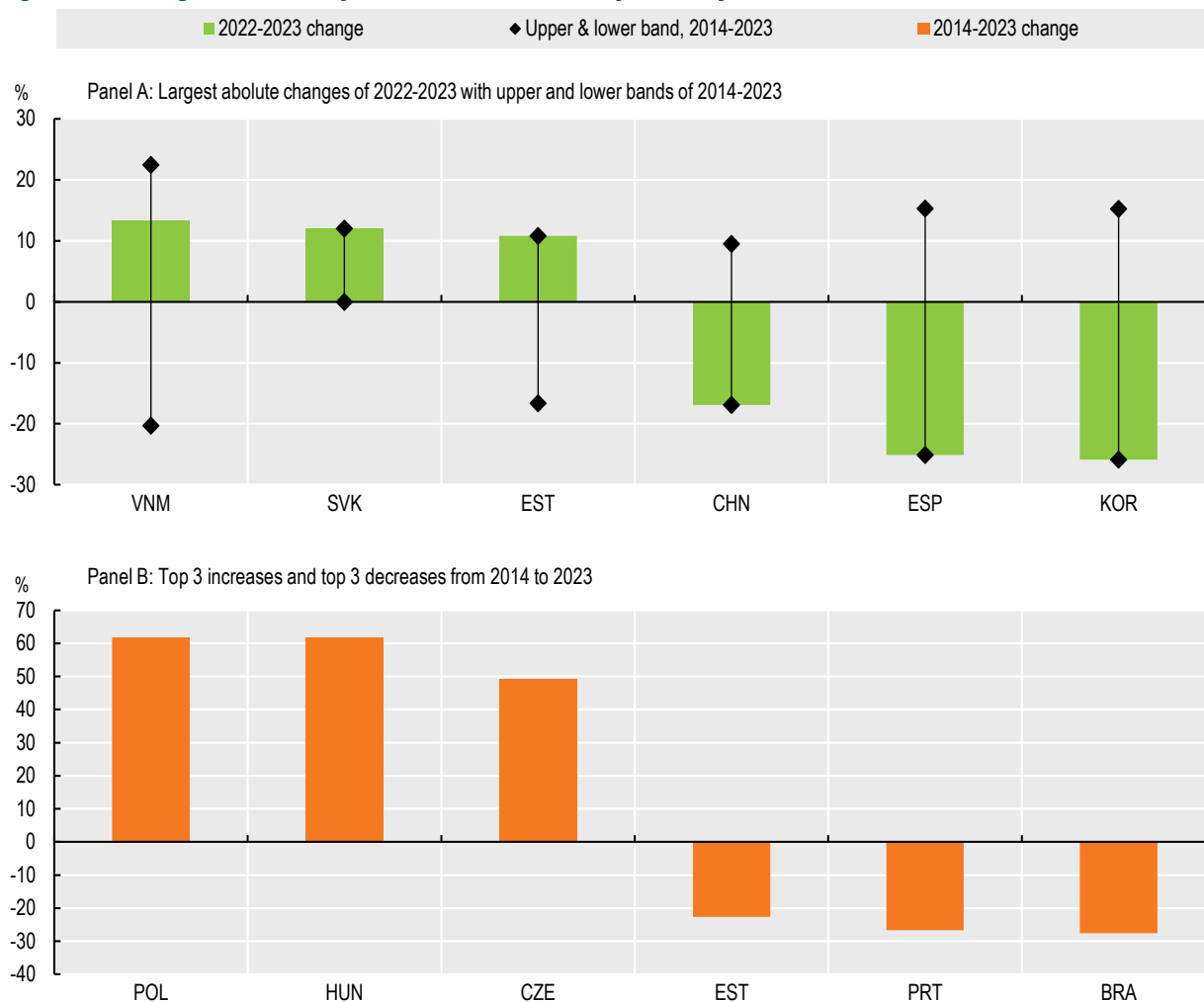


Note: The STRI indices take values between zero and one, one being the most restrictive. The indices are based on laws and regulations in force on 31 October 2023. The STRI regulatory database covers the 38 OECD countries, Brazil, China, India, Indonesia, Kazakhstan, Malaysia, Peru, Russian Federation, Singapore, South Africa, Thailand, and Viet Nam. The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Source: OECD (2023). STRI database.

Several countries introduced regulatory changes affecting the STRIs in 2023 and more so since 2014 (Figure 2). In 2023, the STRIs in this sector saw the biggest changes in Viet Nam (13%), the Slovak Republic (12%), Estonia (11%), China (-17%), Spain (-25%), and Korea (-26%). Since 2014, on the one hand, countries that have had the strongest restrictive trends in the computer services sector include Poland (62%), Hungary (62%), and Czechia (49%). On the other hand, strong liberalisation has taken place in Estonia (-23%), Portugal (-27%), and Brazil (-28%).

**Figure 2. Change in the last year and since 2014, by country**

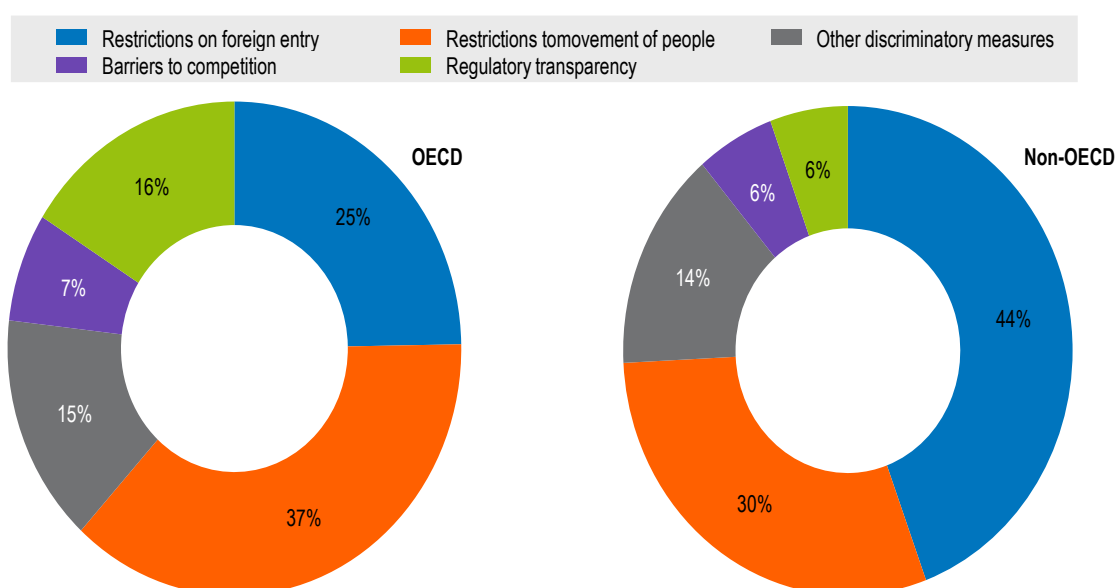


Note: Selection criteria for Panel A were based on largest absolute changes since 2022. Panel B selection is the 3 largest increases, and the 3 largest decreases in the STRI since 2014.

Source: OECD (2023). STRI database.

The measures in the STRI database are organised under five policy areas (Figure 3). Restrictions on foreign entry include barriers related to establishing and operating companies, such as foreign equity limits or requirements on board of directors and cross-border data flows. Restrictions on the movement of people cover barriers that affect the temporary entry of foreign services providers through quotas, labour market tests and short durations of stay. Other discriminatory measures include discrimination of foreign services suppliers as far as taxes, subsidies and public procurement are concerned. Barriers to competition include information on anti-trust policy, government ownership of major firms and the extent to which government-owned enterprises are exempt from competition laws. Regulatory transparency includes information on consultations and dissemination before laws and regulations enter into force. It also records information on obtaining a license or a visa. In the computer services sector, barriers related to restrictions to the movement of people are the most prominent in OECD economies, amounting to 37% of all restrictions. In non-OECD economies, restrictions on foreign entry are relatively more prominent, representing 44% of all restrictions, compared to 30% in restrictions to the movement of people.

**Figure 3. STRI for computer services by policy area in OECD and non-OECD economies, 2023**



Source: OECD (2023). STRI database.

There are no countries that are fully closed to trade in the computer services sector.

Table 1 lists the most relevant restrictions identified in each policy area. Under restrictions on foreign entry, common impediments to trade relate to acquisition and use of land and real estate, screening requirements for foreign investments, residency requirements for board members, local presence requirements, and data localisation requirements. In 34 out of the 50 countries covered, discriminatory treatment applies against foreign firms regarding the acquisition and use of land and real estate for commercial and residential purposes. The same number of countries maintain foreign investment screening mechanisms that do not explicitly rule out the consideration of economic motives or interests.

Computer services can easily be traded across borders through electronic networks. However, cross-border trade needs to be supported by visits to the premises of the customer, both through business travel for technical support and for longer visits to work with clients, for instance on organisational reforms to maximise the benefit of new software. Restrictions to the movement of people, however, remain a significant impediment in this sector. 35 countries have a relatively short duration of initial work or residency permits for contractual services suppliers, and the entry of contractual services suppliers and intra-corporate transferees is conditional on labour market testing or similar economic considerations in 37 and 36 countries, respectively. A license to practice for professionals in this sector (e.g. computer engineers) is required in 11 countries.

Under other discriminatory measures, barriers related to accessing public procurement markets for foreign tenderers remain the most common challenge. Barriers to competition do not appear widespread in computer services. Apart from general requirements related to minimum capital for new companies in 29 countries, eight countries record state owned enterprises among the major services suppliers in the sector and five apply stringent conditions on advertising. Under barriers related to regulatory transparency, lengthy and complex regulatory procedures related to obtaining a business visa contribute to the index for many countries. In addition, the public consultation process for new legislative instruments falls short of best practice in nine countries.

**Table 1. Top 5 most relevant measures by policy area, 2023**

Policy area	Measure	Countries having a restriction <sup>1</sup>
Restrictions on foreign entry	Acquisition and use of land and real estate by foreigners is restricted	34
	Screening exists without exclusion of economic interests	34
	Local presence is required for cross-border supply	19
	Board of directors: at least one must be resident	17
	Certain data must be stored locally	12
Restrictions to movement of people	Labour market tests or similar economic considerations: contractual services suppliers	37
	Labour market tests or similar economic considerations: intra-corporate transferees	36
	Limitation on duration of stay for contractual services suppliers	35
	Memo: Licence or authorisation is required to practice	11
	Other restrictions to movement of people	9
Other discriminatory measures	Public procurement: Procurement regulation explicitly prohibits discrimination of foreign suppliers	42
	Access to the procurement market is conditional on reciprocity	29
	Public procurement: The procurement process affects the conditions of competition in favour of local firms	24
	Public procurement: Explicit preferences for local suppliers	21
	Memo: The procurement process below the value thresholds affects the conditions of competition in favour of local firms	19
Barriers to competition	Minimum capital requirements	29
	National, state or provincial government control at least one major firm in the sector	8
	Restrictions on advertising	5
	Prices or fees are regulated	1
	Publicly-controlled firms are exempted from the application of the general competition law	1
Regulatory transparency	Memo: Licensing and authorization fees are transparent	49
	Memo: Participation in the WTO Reference Paper on Services Domestic Regulation	45
	Range of visa processing time	31
	Number of documents needed to obtain a business visa	26
	There is an adequate public comment procedure open to interested persons, including foreign suppliers	9

Note: The count for “memo” type of measures, which are not scored in the STRI, indicates the number of positive answers recorded for that measure across the 50 countries covered. The topmost relevant measures are selected on the basis of the following criteria: (1) most restricted horizontal measures (i.e. same answer across sectors), (2) most restricted sector-specific measures, (3) key measures or (4) memos affecting the score of other measures through hierarchy rules.

Source: OECD STRI database (2023).

## More information

- » Access all country notes, sector notes, and interactive STRI tools at <http://oe.cd/stri>
- » Read more about [Services Trade Policies and the Global Economy](#)
- » Based on calculation from: Benz, S. and A. Jaax (2020), "The costs of regulatory barriers to trade in services: New estimates of ad valorem tariff equivalents", OECD Trade Policy Papers, No. 238, OECD Publishing, Paris, <https://doi.org/10.1787/bae97f98-en>
- » Contact the OECD Trade and Agriculture Directorate with your questions at [stri.contact@oecd.org](mailto:stri.contact@oecd.org)