

# Computer Services 2022

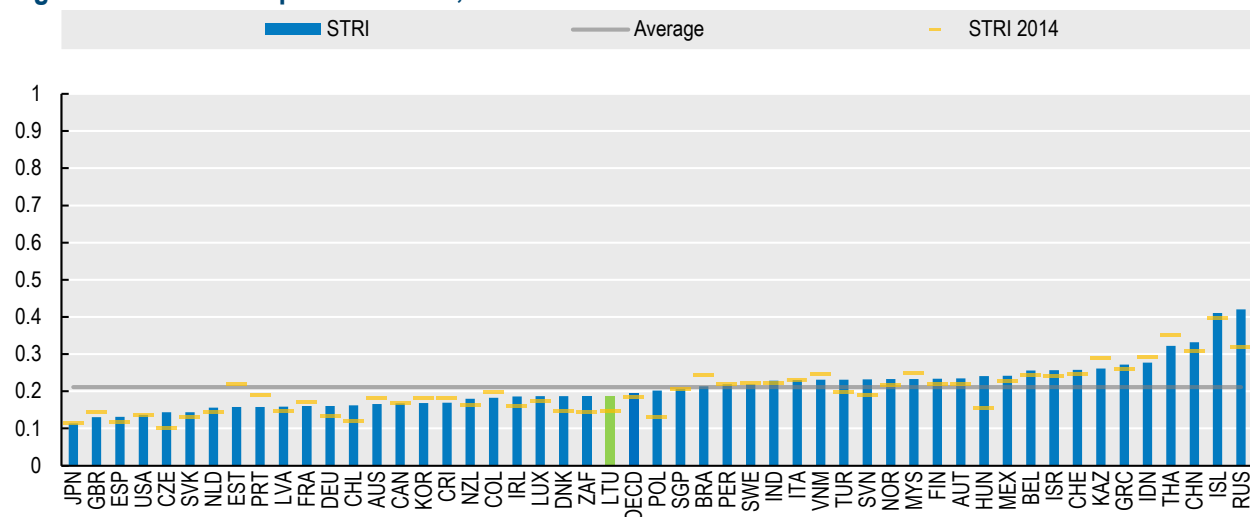
## Key findings

- The average 2022 STRI in the computer services sector is 0.21 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 0.11 and 0.42.
- The best performing countries in the sector are Japan, the United Kingdom, and Spain. Most reforms in 2022 were recorded in Japan, Viet Nam and New Zealand.
- Restrictions on foreign entry are the main drivers of trade restrictiveness in the sector, amounting to 29% in OECD economies and 45% in non-OECD economies. 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 10% 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 code 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 are 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 2022 STRIs in the computer services sector range between 0.11 and 0.42, with a sample average of 0.21 (Figure 1). There are 26 countries below and 24 countries above the average. The best performing countries in the sector are Japan, the United Kingdom and Spain.

**Figure 1. STRI in computer services, 2022**

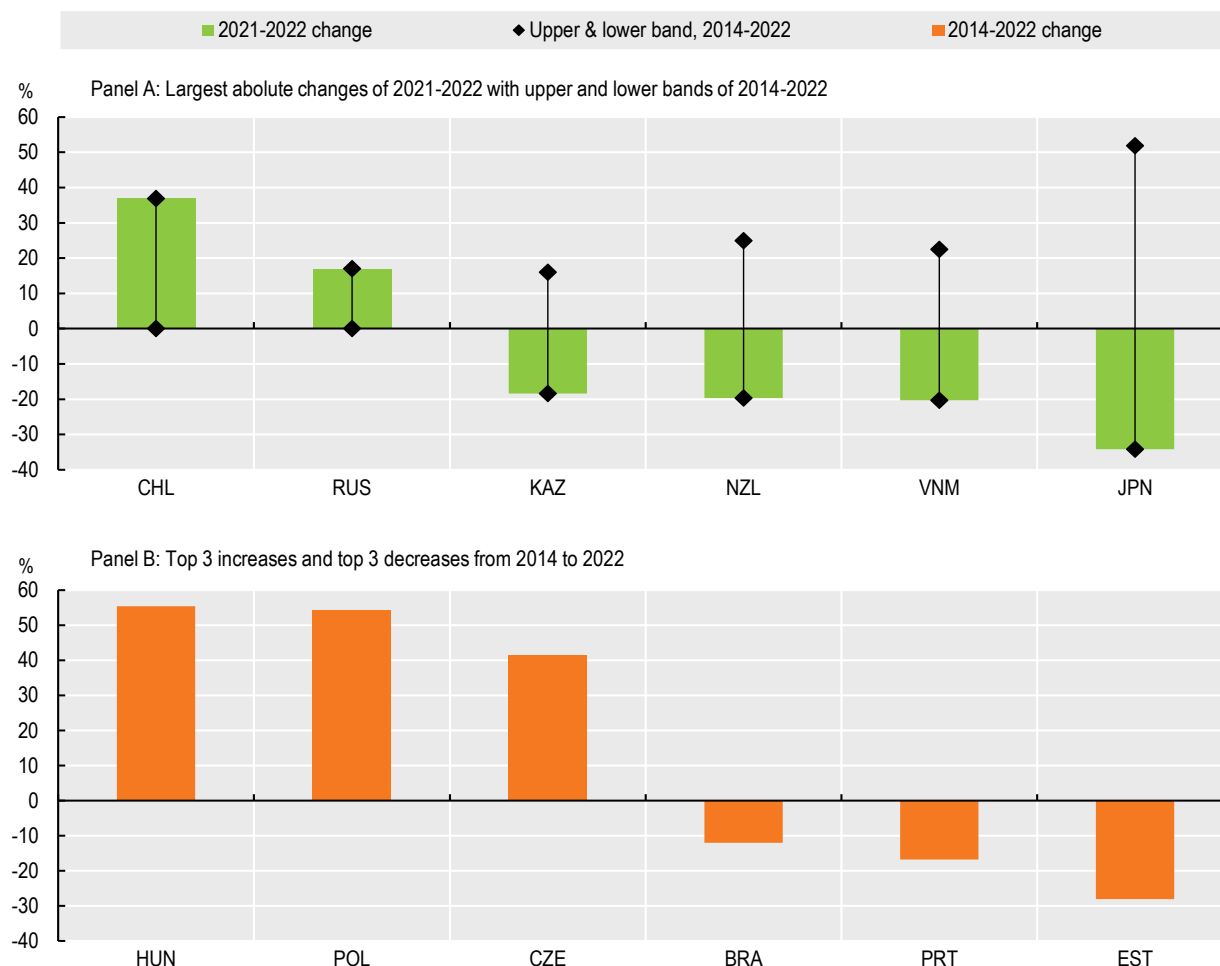


Note: The STRI indices take values between zero and one, one being the most restrictive. The indices are based on laws and regulations in force on 31 October 2022. The STRI regulatory database covers the 38 OECD countries, Brazil, China, India, Indonesia, Kazakhstan, Malaysia, Peru, Russian Federation, 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 (2022). STRI database.

Several countries introduced regulatory changes affecting the STRIs in 2022 and more so since 2014 (Figure 2). In 2021, the STRIs in this sector saw the biggest changes in Chile (37%), the Russian Federation (17%), Kazakhstan (-18%), New Zealand (-20%), Viet Nam (-20%), and Japan (-34%). Since 2014, on the one hand, we have observed countries that have had the strongest restrictive trends such as Hungary (55%), Poland (54%) and the Czech Republic (42%). On the other hand, we have strong liberalising trends in Brazil (-12%), Portugal (-17%), and Estonia (-28%).

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

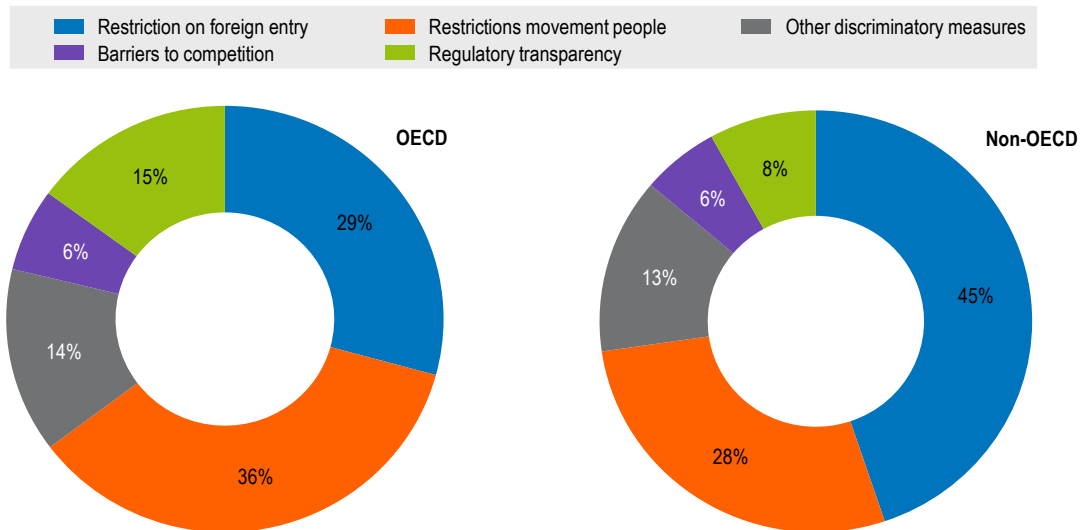


Note: Selection criteria for Panel A was based on largest absolute changes since 2020. Panel B selection is the 3 largest increases, and the 3 largest decreases in the STRI since 2014.

Source: OECD (2022). 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 prior to laws and regulations entering into force. It also records information on obtaining a license or a visa. In this sector, barriers related to restrictions on foreign entry are most prominent and amount to 29% in OECD economies and 45% in non-OECD economies.

**Figure 3. STRI for computer services with policies areas in OECD and non-OECD economies, 2022**



Source: OECD (2022). STRI database.

There are no countries that are fully closed to trade in this sector.

Table 1 lists the most common restrictions identified in each policy area. Under restrictions on foreign entry, common impediments relate to cross-border data flows, acquisition and use of land and real estate, screening requirements for foreign investments, residency requirements for board of members, licensing requirements, limitations to the proportion of shares that can be acquired by foreign investors, and foreign equity restrictions. Demonstrating a local presence in the country (e.g., through a local representative) is required in 19 countries, while at least one manager must also be resident in 17 countries. 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 with short-permits for initial duration of stay and conditioning entry based on labour market tests for contractual and independent services providers, and intra-corporate transferees in 37 out of the 50 countries covered. A license to practice for professionals in this sector (e.g. computer engineers) is required in 11 countries. Other restrictions to the movement of people remain in 10 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 28 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 a large number of countries. In addition, the public consultation process for new legislative instruments falls short of best practice in 10 countries.

**Table 1. Top 5 most relevant measures by policy area, 2022**

Policy area	Measure	Countries having a restriction <sup>1</sup>
Restrictions on foreign entry	Cross-border data flows: cross-border transfer of personal data is possible to countries with substantially similar privacy protection laws	42
	Acquisition and use of land and real estate by foreigners is restricted	34
	Screening exists without exclusion of economic interests	29
	Local presence is required for cross-border supply	19
	Board of directors: at least one must be resident	17
	Memo: Licensing or authorization is required to enter the market	8
	There are limits to the proportion of shares that can be acquired by foreign investors in publicly-controlled firms	4
	Memo: Free cross-border transfer of personal data or application of the accountability principle	2
	Foreign equity restrictions: maximum foreign equity share allowed (%)	1
Restrictions to movement of people	Labour market tests: contractual services suppliers	37
	Labour market tests: intra-corporate transferees	37
	Limitation on duration of stay for contractual services suppliers	36
	Memo: Licence or authorisation is required to practice	11
	Other restrictions to movement of people	10
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
	Other restrictions in other discriminatory measures	1
Barriers to competition	Minimum capital requirements	28
	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
	Other restrictions in barriers to competition	1
	Publicly-controlled firms are exempted from the application of the general competition law	1
Regulatory transparency	Memo: Participation in the WTO Reference Paper on Services Domestic Regulation	45
	Range of visa processing time	28
	Number of documents needed to obtain a business visa	26
	Memo: Licensing and authorization fees are transparent	13
	Memo: Licensing and authorization fees are transparent	13
	There is an adequate public comment procedure open to interested persons, including foreign suppliers	10

Note: The count for "memo" type of measures, which are not scored in the STRI, indicate the number of positive answers recorded for that measure across the 50 countries covered. Top most 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 (2022).

## More information

- » Access all country notes, sector notes, and interactive STRI tools at <http://oe.cd/stri>.
- » Read more about services trade policies and their impacts in [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).