



## ORIGINAL ARTICLE


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## The position of China in trade in services within the European Union

**JEL Classification:** F14; F15; L80; O14

**Keywords:** *trade in services; China; European Union; comparative advantage; trade position*

### Abstract

**Research background:** In recent decades, services in international trade have been growing steadily in importance, and there has been strong growth in China's trade in services as a result of the 'opening up' policy. China has become the European Union's second biggest trading partner in services with the European Union (EU), being China's largest trading partner. The EU is one of the addressees of the Chinese Belt and Road Initiative, which creates opportunities and threads to the European Internal Market in services.

**Purpose of the article:** The aim of this paper is to contribute to the literature and fulfil the research gap on the position of China in intra-EU trade in services.

**Methods:** We identified the most important types of services offered by China to purchasers from the EU countries. By using the Revealed Symmetric Comparative Advantage (RSCA) and trade balance (LFI) indices, we classified the Chinese exports to the EU Internal Market by types of services and by their trade position.

**Findings & value added:** We found out that China might be perceived as a strong competitor for intra-EU trade in selected services, especially those concerning low-end service tasks, that use relatively low-skilled labour and are less knowledge- and capital-intensive. However, China's attitude is changing towards more sophisticated services for example R&D. It creates a need for

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a new approach to the EU economic policies (in terms of both protectionism and interventionism) in trade relations in services with China.

## **Introduction**

In recent decades, services in international trade have been growing steadily in importance. To date, developed economies have been perceived as the main players in trade in services. However, this has changed in recent years, as some fast-growing emerging markets, including China, have also become prominent players. Since joining the World Trade Organisation (WTO) in 2001, systematic growth of the importance of China in trade in services worldwide can be observed: its share in the world's exports and import of services more than doubled in 2005–2021 respectively, from 2.96% to 6.61% and from 3.22% to 7.73% (WTO 2022). As a result, China has been placed among the top ten countries in exports and imports of services.

This strong growth of trade in services can be explained by the 'opening up' policy, embracing several issues, especially concluding preferential treatment agreements and realisation of the "Belt and Road Initiative" (BRI). The aim of BRI, launched in 2013, was to enable China to seek new opportunities to foster its integration into the world economy (Aoyama, 2016; Liu *et al.*, 2019). China signed preferential trade agreements with many countries and organisations, however, excluding the European Union (EU) (Gari, 2020), although the EU is perceived as one of the addressees of the Chinese BRI initiative (Li & Schmerer, 2017). As the world's largest economic entities, the cooperation between the EU and China in trade in services is getting closer and more extensive. The EU is China's biggest trading partner, while China has become the second biggest trading partner to the EU after the United States. In the period 2010–2021, exports of European services to Chinese customers increased by nearly 191% (from 19.6 billion euro in 2010 to 57.1 billion euro in 2021), while Chinese exports of services to the EU customers increased by 109%, reaching 36.5 billion euro in 2019 compared to 17.4 billion euro in 2010 (Eurostat, 2022), with a slowdown in 2020 due to the pandemic crisis (respectively by 12% and 8%).

The main feature of the EU in economic terms is the European Internal (Single) Market. The concept of the Internal Market is an area without internal frontiers and with free movement of goods, services, workers, and capital. It implies that there should be for example no legal, economic and administrative barriers to the provision of services among the EU Members. Although the Internal Market in services is not fully completed, it creates

challenges and new opportunities for services providers, both European and external (i.e., Chinese), enabling them to offer their services across all EU Member States. With that in mind, we assumed, following the reasoning of Ploberger (2017), that one of China's expansion goals of the BRI is to connect China with the EU as the world's largest and richest consumer market. However, at the same time, from the European perspective, China might be perceived twofold: as an attractive partner for economic cooperation, as well as a competitor that has been repeatedly accused of unfair practices.

Given the above, the aim of this paper is to contribute to the literature by assessing China's position in trade in services with the EU against intra-EU trade in services. While there are studies on the EU trade in services and its competitiveness, as well as on competitiveness of China's trade in services in general, there are no studies exploring China's competitiveness in services trade from the European perspective. Therefore, in this paper we investigate in which types of services China might be perceived as a strong competitor for intra-EU trade in services. Our hypothesis is that taking into account expanding trade relations in services, China might be perceived as a strong competitor for intra-EU trade in selected services, especially those concerning low-end service tasks that use relatively low-skilled labour and are less knowledge- and capital-intensive. We believe that it might add a new perspective to the EU economic policies regarding China as a potential competitor in intra EU trade in modern services.

The paper's focus on the European intra-EU vs. EU-China trade in services is a major contribution to the research gap and to knowledge on the issue in the light of potential challenges in the services trade. To fulfil the aim of the paper, we use the comparative advantage and trade position approach, which is one of the most frequently used methods to assess trade competitiveness.

The rest of the paper is structured as follows. After the literature review, we present our methodology, data selection, and empirical analysis, including state-of-the-art mapping in types of services in which China might be an important competitor. Then, we present and discuss results and finally formulate some conclusions, as well as comments on implications for future research.

## **Literature review**

China is widely perceived to be an outstanding player in international trade in services. This is reflected in a number of studies on China's international trade in services, its growth and dimensions. Analysing China's trade in

services, Chen and Whalley (2014) found that it noted a high rate of growth resulting in a huge impact on global trade. They predicted even more intensive growth in China's importance to the world economy in the future. These predictions were confirmed by Yin and Choi (2021) who pointed out the role of BRI in intensification of China's services export and creation of new competitive advantages (for example tourism services (Chen *et al.*, 2021) and knowledge-based services (Li *et al.*, 2020)). However, one should not forget while researching economies with different systems, (e.g., EU vs China) that economic and political factors are often intertwined. This is pointed out by Kung *et al.* (2016), who state that in order to strengthen its position in trade in services, China often deployed foreign trade relationships and developed collaboration in multilateral trade in services on the basis of political implications. These issues were also pointed out by Holslag (2017) and Devonshire-Ellis (2019), as well as by Song *et al.* (2022).

The expansion of trade in volume terms is an important issue to explore, however the position of an exporter in the international markets depends on its competitive advantage regarding comparative advantage and trade position. The literature on comparative advantage in trade in services for China is quite limited. Research on the topic undertaken by Tang *et al.* (2014) found that China's comparative advantage in services lies in tasks requiring relatively low levels of skill, knowledge, and productivity. Similar results were obtained by Baláž *et al.* (2020), who also observed that China's competitiveness of selected sectors derives from a lower level of sophistication. On the other hand, Kung *et al.* (2016) analysed China's comparative advantage in trade in services taking into consideration twelve main types of services and found that China is considerably less competitive in trade in services than other countries in the study. This was confirmed by Wang (2019), who, based on his analysis of statistics gathered over five years regarding summarized trade in services in the global arena, concluded that despite the increase in competitiveness, China's trade in services is still at a disadvantage. However, this author indicates the important role of the BRI as an opportunity to develop trade in services and to promote the international competitiveness of China's service trade. Also, Wang *et al.* (2020) underlined that the specialization of China's segmented service sectors was lagging behind other developed economies, and China still has a long way to go from being a large power in service trade in volume terms to a strong power in service trade in competitiveness terms. Recently, research on the international competitiveness of China's trade in services in the global arena using the comparative advantage method was undertaken by Jiang and Lin (2020). Their results show that the overall international competitive-

ness of China's trade in services is weak but has been rising in some types of services over the past 20 years, such as construction and communication services, leaving the rest with no competitive advantage.

As China's trade in services has developed, trade relations between China and the European Union have become more extensive over the years. This growth creates some concerns, however, Baláž, *et al.* (2020) argue that the intensity of trade in services with China remains at a relatively low level. As Holslag (2017) noted, China's share in trade in services markets is growing spectacularly in countries situated along the New Silk Road and is becoming a major challenge and threat to European countries. These concerns are also shared by Dadush *et al.* (2019), who underline that as Chinese export to the European markets has increased dramatically over the years, it might have caused some degree of disruption in the EU labour and services markets. With that in mind, Freeman (2017) points out that the EU Member States should be aware of the rise of a strong competitor, even though the EU tends to strengthen the services sector and trade in services within the Internal Market, as well as to support the improvement of servitization processes in manufacturing sectors.

On the other hand, Casarini (2016) suggests that such a trade partner as China might also be perceived as a great opportunity, as the new business model based on servitization expands. This approach is shared by Malmström (2016) and Bloom *et al.* (2016). Malmström sees twofold opportunity: in the creation of new jobs, as sales to China will intensify and, additionally, in a greater competitive advantage of European companies over service providers based in China. Meanwhile, Bloom and others underline that having a strong competitor may intensify innovation efforts and boost productivity in European enterprises, including service providers. A similar approach is presented by Christiansen and Maher (2017). These views might be supported by the results presented by Chen *et al.* (2019), who found that the structure of trade flows differs substantially, and while China prevails in export of less knowledge-intensive services, EU export is more knowledge-intensive. Recently, the positive approach to the BRI and having China as a partner were expressed by Hoekman and Puccio (2019), stating that the EU has much to gain from the effective implementation of the initiative in terms of potential synergies in the sphere of the EU development cooperation. This approach is shared by Baláž, *et al.* (2020), who perceived relatively low global competitiveness of the Chinese service sector as an opportunity for European businesses.

When analysing the current competitive position of China in services trade with the EU, the external economic shock caused by the Covid-19 health pandemic should be taken into consideration. Although there are no

studies specific to EU-China trade in services, there are some studies which might shed some light on the issue. Unlike the previous external shocks, the novel coronavirus pandemic had an impact on trade in services and Duan *et al.* (2021) found that services which are the most vulnerable to cross-border movement of people were most affected. Lim *et al.* (2021) and Lu *et al.* (2021) came to a similar conclusion. They investigated the effects of COVID-19 on different service sectors, and found that it was mostly services related to trade, hospitality and transport services that suffered. Also, Ando and Hayakawa (2022), who examined trade in services of 146 economies in 2019 and 2020, including China and the EU member states, found that international trade in travel, passenger transport and construction services were mostly affected. On the other hand, Lawless (2021) found that the detrimental effects on professional services and business services were limited.

Taking all of the above into consideration, and as there is quite a lot of research on overall trade in services relations of China in the international community, apparently there is a niche in research on the position of exports of services from China to the EU in the light of their potential impact on intra-EU trade in services. Therefore, the research undertaken by the authors aims to fill this research gap and enhance knowledge on the topic.

## **Research method**

In order to grasp China's position in trade in services with the EU in relation to intra-EU trade in services regarding different types of services, we decided to take into consideration two key indices: the comparative advantage and net trade position. The best-known and the most widely used indicator for measuring relative comparative advantage in exports is Balassa's (1965) Revealed Comparative Advantage (RCA) index, which might be used also for analysing trade in services (Langhammer, 2004; Stefaniak & Kuczevska, 2016).

RCA indicators generally indicate some weaknesses: differences in size of trade partners and the asymmetric nature of its values. First of all, large differences in country sizes can cause a problem, however China and the European Union, as a whole, are recognised as trade partners with similar potential economies. Regarding asymmetry of the index, the original RCA ranges from zero to one, if a country has a comparative disadvantage in a given sector, and from one to infinity, if a country has comparative advantage. As there are many versions of the RCA index addressing this problem, we applied the Revealed Symmetric Comparative Advantage

(RSCA) index proposed by Dalum *et al.* (1998) and Laursen (2015) with its neutral point at 0. Therefore, for the index above 0, the country is identified as having a comparative advantage in exports, while for the index below 0 – a comparative disadvantage. In our case we used the formula as follows:

$$RSCA = (RCA_j^{CN} - 1)/(RCA_j^{CN} + 1) \quad (1)$$

and

$$RCA_j^{CN} = \left( x_j^{CN} / \sum x_j^{CN} \right) / \left( x_j^{EU} / \sum x_j^{EU} \right) \quad (2)$$

where:

- $x_j^{CN}$  value of China's exports of service  $j$  to the EU;
- $x_j^{EU}$  value of the intra EU exports of service  $j$  in total intra EU trade in services.

There are two more issues regarding the RSCA index. Firstly, we consider China's trade position and competitive advantage in relation to intra-EU trade in services. Secondly, although the normalisation of the RCA solves the problem of its asymmetry (RSCA indicator), the problem of the robustness of empirical distribution remains. Nonetheless, we decided to apply the RSCA, taking into account arguments and outcomes of Deb and Sengupta's (2017) research that empirical distribution of that index is almost *at a par* with its theoretical distribution.

As the RSCA index focuses on the relative export performance and disregards net trade flows and intra-industry trade, in order to grasp trade in both directions (exports and imports) and to evaluate China's net trade position in relation to intra-EU trade in services, we decided to apply the Lafay index (1992). This index takes into account both exports and imports by using the difference between each item's normalised trade balance and the overall normalised trade balance (the sum of the index across sector  $j$  for any year must by design be equal to zero) and weighs each product's contribution according to the respective importance in trade (Platania *et al.*, 2015). The implicit assumption is, of course, that cyclical factors influence aggregate and disaggregate trade flows in the same way. Moreover, it also checks for distortions induced by macroeconomic fluctuations (Caselli & Zaghini, 2005). In our case, the Lafay index is defined as follows:

$$LFI_j^{CN} = 100 \left( \frac{x_j^{CN} - m_j^{CN}}{x_j^{CN} + m_j^{CN}} - \frac{\Sigma(x_j^{CN} - m_j^{CN})}{\Sigma(x_j^{CN} + m_j^{CN})} \right) \frac{x_j^{CN} + m_j^{CN}}{\Sigma(x_j^{CN} + m_j^{CN})} \quad (3)$$

where:

$x_j^{CN}$  value of China’s exports of service  $j$  to the EU,

$m_j^{CN}$  value of China’s imports of service  $j$  from the EU.

Generally, the positive values of *LFI* indicate the existence of comparative advantages in a given product/service, while the negative values point to a disadvantage (de-specialisation) in this product or service. Therefore, we assumed that  $LFI > 0$  indicates reliance on exports, which contributes to a better result in a specific service type than in the whole trade in services, while  $LFI < 0$  indicates results worse than in the trade in services in total.

To be able to simultaneously observe changes and final values of the aforementioned two indices, we used the ‘product mapping’ concept developed by Widodo (2009). However, in our research, this concept was modified by using the RSCA and Lafay’s indices instead of, respectively, the RCA and Trade Balance Index applied in Widodo’s original concept. To this end, we identified four main groups of services using various results for the RSCA and *LFI*. This allowed us to find out in which types of services China can be seen as a strong competitor to the European Union (Figure 1).

Group A consists of services for which a country has both comparative advantage (export specialization) and net trade achieving better results than in its trade in services in general. Group B consists of services for which a country has a comparative advantage, but the net export results are worse than for the country’s trade in services in total. Group C comprises services for which a country’s position in net export is better than in its trade in all services even though no comparative advantage exists for these services. The last group comprises cases of the worst trade position when a country suffers from a comparative disadvantage and a negative trade position regarding net trade.

Data on exports used in the paper come from the Eurostat database and are presented according to the Eurostat balance of payments services classification (EBOPS 2010). We identified eleven main categories of services, with some sub-categories for “Other business services”.



## Results and discussion

To assess China's position in trade in services with the EU in relation to intra-EU trade in services, we applied the aforementioned Widodo (2009) concept to China's exports of services to the EU. We have found that in the case of some services China's position in Widodo's groups changed while in other cases it remained unchanged (Figure 2). Over the years, the competitive trade position (Group A) was sustained for transport services (SC) and other business services (SJ), especially research and development services (SJ1) and legal services (SJ211). During the period of 2010–2021, the trade position improved considerably regarding manufacturing services on physical inputs owned by others (SA), maintenance and repair services (SB), construction services (SE), and insurance and pension services (SF). On the other hand, the trade positions of accounting services (SJ212), as well as business and management consulting services (SJ213) worsened. The trade positions for other types of services (Group C or D) were weak in relation to intra-EU trade.

To determine whether China might be perceived as a competitor for intra-EU trade in services, we investigate more specifically those services which were placed in Group A.

In 2010, the best competitive position was noted for transport services, however it worsened dramatically in 2020–2021 as a result of the pandemic crisis. However, we have found that transport services were still prominent. Our findings are in line with results of research by Chen *et al.* (2019). China's strong position in transport services is due to the fact that it uses all available transport networks, in which it has a cost advantage, to deliver products to the European market. Besides the sea, road and air transport within the BRI international transport corridors, China is improving its position in rail transportation as the number of European rail destinations increases and logistic systems expand (Choi, 2021; Du *et al.*, 2022). On the other hand, European destinations are changing, including harbours which adapt to the new situation (Liu *et al.*, 2022).

In 2021, a strong trade position in relation to intra-EU trade in terms of comparative advantage and net trade was noted for manufacturing services on physical inputs owned by others (SA) and maintenance and repair services (SB), although the volume of those services traded is not big. Immediately after the crisis of 2008–2010, China was a net importer and had a comparative disadvantage (Group D) in both sectors. However, since 2014 and 2013 it has radically improved its position in relation to group A. This confirms the findings of previous studies, as Tang *et al.* (2014) found that China's comparative advantage in services lies in tasks requiring relatively

low levels of skill, knowledge, and productivity. Baláž *et al.* (2020) obtained similar results, finding that China's better trade position was noted in services mainly associated with a lower level of sophistication, such as manufacturing services on physical inputs owned by others as well as maintenance and repair.

During the period under research, China improved its trade position (Group D to Group A) in trade in construction services (SE) delivered to European buyers in relation to intra-EU trade, however the volume of services traded is not that high. This gradual improvement has been observed since 2016, however in 2019–2020, trade in construction services between China and the EU followed a global trend, as presented by Ando and Hayakawa (2022), facing negative consequences of the COVID-19 pandemic (Group D). As pandemic restrictions have been lifted, China has regained its trade position as a net exporter with a comparative advantage in intra-EU trade. In general, our findings confirm those of Chen *et al.* (2019), who observed a long-term tendency and gradual improvement of China's trade position in construction services in the global market. Also, Jiang and Lin (2020) noted that although the overall international competitiveness of China's trade in services is weak, construction sector competitiveness has been rising over the last decades. However, the trade position in construction services has become stronger as in the last decade the European market became a target for some big Chinese contractors who became more offensive in exporting construction services to the European market (Holslag, 2017). Firstly, this was the effect of changes in policy regarding construction services in China, as the pillar sector of economic growth (Su *et al.*, 2022) and sustainable development (Gan *et al.*, 2022). Secondly, the growing attention paid to the European market goes hand in hand with the state offering cheap financing, low production and labour costs, eagerness to learn and pick up ideas and technologies, as well as building parts of projects in China. However, there are also unfair practices, such as using second rate sub-contractors to compete, paying professional fees on a success basis only, or using diplomatic relations and key lobbyists to win contracts (Devonshire-Ellis, 2019). All these actions allowed China to become a net exporter of construction services to the European market in recent years. Therefore, competing with Chinese contractors requires specific strategies from the European governments, as well as construction service providers themselves.

Growing Chinese investments in the EU provide Chinese companies with a platform to improve their competitiveness in the European Internal Market and this is reflected in the trade position regarding intra-EU trade in other business services (SJ). With a huge presence of Chinese businesses,

and over 900 Chinese companies operating in the EU in 2019 (CCCEU, 2019), many business and management services were brought to the European market from China. This might further accelerate China's competition in relation to the European service providers in the Internal Market.

Taking into consideration the sub-categories of 'Other business services' (SJ), four cases can be identified:

- China maintained a comparative advantage and good trade position (Group A) over the whole period in research and development (R&D) services (SJ1) and legal services (SJ211). In the case of R&D services, our findings reflect the general picture, as Xi and Ghauri (2021) noted that China's investment in this R&D sector has grown remarkably over recent decades, and it is now the second largest performer in the world in terms of R&D spending. China has also emerged as a new science and technology (S&T) powerhouse with a plan to become the leader in S&T by 2050 (Veugelers, 2017). Additionally, the quality of R&D resources, indigenous scientific capacity, and access to the universities and research institutions make China an increasingly attractive location for research activities of multinational companies, including the European ones. All of the above, as well as Chinese policies of "brain circulation" and fostering FDIs focused on technology transfers, and supporting innovation and technology development, lead us to believe that in the near future China will become a worldwide leader in trade in R&D services, although it has recorded a very high deficit in international trade (Xi & Ghauri, 2021). This should be taken into account by the EU countries and institutions in the context of their technology and innovation policies, as China has already become a competitor in R&D services.
- China has revealed a comparative advantage in engineering services (SJ312). On one hand it is most often a net importer in the period under research (group B), however, on the other hand, the volume of trade in those services is important in relation to intra-EU trade. Therefore, China's policy and trends in trade in engineering services should be observed to find out whether in the long term China will become a competitor.
- As for the accounting and auditing services (SJ212) and business and management consulting and public relations services (SJ213), during the years under research China maintained a good trade position while having a comparative disadvantage (group C). We have also found that, similarly to the findings of Lawless (2021), accounting services as well business and management services experienced limited or no impact of national restrictions during the COVID-19 pandemic. Due to the nature

of the services under consideration, we assume that these services are offered to the European buyers operating on the Chinese markets, rather than in the EU Internal Market directly. Therefore, from the European perspective, there is no competition thread in the EU Internal Market.

- Finally, as for architectural services (SJ311) to date China has had a comparative disadvantage with a weak trade position (Group D). However, the value of architectural services traded is substantial in relation to intra-EU trade, and the RSCA indexes are improving steadily over the period under consideration.

As for other categories of services under research, such as travel (SD), financial (SG), charges for the use of intellectual property n.i.e. (SH), telecommunications, and computer and information services (ICT) (SI), China's trade position is characterised by a comparative disadvantage in trade in the EU Internal Market being, at the same time, a net importer (Group D). In the case of travel services, bearing in mind the distance and the economic and social environment in China, as well as the post-pandemic situation, the weak trade position will remain. Considering financial services, over the analysed period, China's trade position in the EU Internal Market has not changed as the European market is sufficiently regulated and restricted, and thus Chinese companies cannot easily reach it. Regarding trade in communication and IT services, while Jiang and Lin (2020) found improvement in China's revealed comparative advantage in those services on the Asian markets, we have not found similar effects in the trade with the EU. While EU-China trade is considered in relation to intra-EU trade, China's trade position during the period under consideration remained weak with a comparative disadvantage. There are some similarities regarding the trade position of China in intellectual property protection services, however this even declined, even though the volume of trade is substantial (Yang & Pang, 2022). Finally, in terms of trade in personal, cultural, and recreational services (SK) in the EU Internal Market, China became a net exporter in 2021, however it recorded a comparative disadvantage (group C). This might be explained by the specificity of activities that require location in Europe, hence the much stronger position of European companies. European companies are in a stronger position as they understand better the cultural and social preferences.

Regarding trade positions considering the last group of services, our findings correspond to those of Chen *et al.* (2019) and Baláž, *et al.* (2020). Baláž noted that China is still lagging behind developed countries in the sophistication of services traded, which is particularly evident in the substantially high negative trade balances for services such as charges for the use of intellectual property, travel, as well as insurance and pension ser-

vices. We also observed that all of those services in trade with the EU experienced negative consequences of the COVID-19 pandemic, and this caused their trade position to decline in relation to intra-EU trade.

## **Conclusions**

Summarising the above research findings, some key conclusions and contributions are noteworthy. China's potential in the service sector is growing, and therefore China's role in trade in services will steadily increase. Our research showed that China is becoming a strong competitor in the EU Internal Market in six types of services of which the characteristics confirm the servitization approach taken by Chinese manufacturers and service providers. Over recent years, China has risen to the position of competitor to the European service providers in manufacturing services on physical inputs owned by others and maintenance and repair services, although the level of trade is not yet significant. Over the years, China has also maintained its strong trade position in R&D services, allowing China to be recognized as a competitor. Additionally, even though it still has a comparative disadvantage, China is gaining a new position of a net exporter in construction services, and taking into consideration both the cost advantage as well as the policy of China's government and different forms of trade incentives, including financial support. trade in these services should be observed more closely.

Having identified the services in which China might be perceived as a strong competitor for intra-EU trade in services, except for R&D services, China's comparative advantage in trade was observed to relate to services based on traditional labour- and resource-intensive services due to its factor endowment abundance of relatively low-cost labour and other low-cost production resources. Having said that, we can confirm our hypothesis that China might be perceived as a strong competitor for intra-EU trade in selected services, especially those concerning low-end service tasks that use relatively low-skilled labor and are less knowledge- and capital-intensive. However, China's attitude towards services is changing, and this is having a major effect on the image of Chinese trade. Large-scale investments in new technologies, science and innovation, an eagerness to learn new methods and acquire high-tech knowledge, as well as increasing levels of investment (FDI) in developed markets such as the EU and US are strengthening China's position in trade in more sophisticated services, such as business services, especially R&D services or business and management consulting, and public relations services.

Evidence from different research, data, and trends in trade in services analysis, as well as Chinese policies regarding services, suggest that the opinion of Nan and Shuiyu (2018) stating that "the competitiveness of China's services trade has been strengthened, and the country is gradually shifting from a power of trade in goods to a services trade power" is very much relevant. This could pose a major challenge to EU service providers, who might lose their shares in the EU market to the Chinese competitors. Therefore, in view of the "Belt and Road" Initiative and the possibility of the future EU-China Free Trade Agreement, the EU Member States should be aware of strong competitive pressure from Chinese service providers.

It seems that further studies should be carried in two areas: first, analysis of a trade position should continue, taking into account the Chinese attitude towards services; secondly there needs to be a focus on where the service transactions take place: whether services are offered to the EU entities in the Internal Market or to the European buyers operating in the Chinese market.

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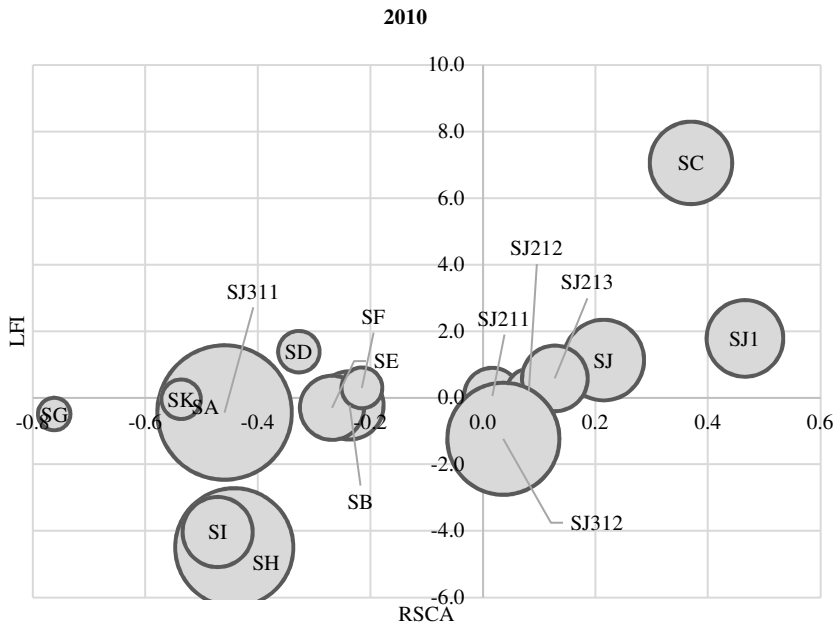
## Annex

**Figure 1.** Product/service mapping matrix

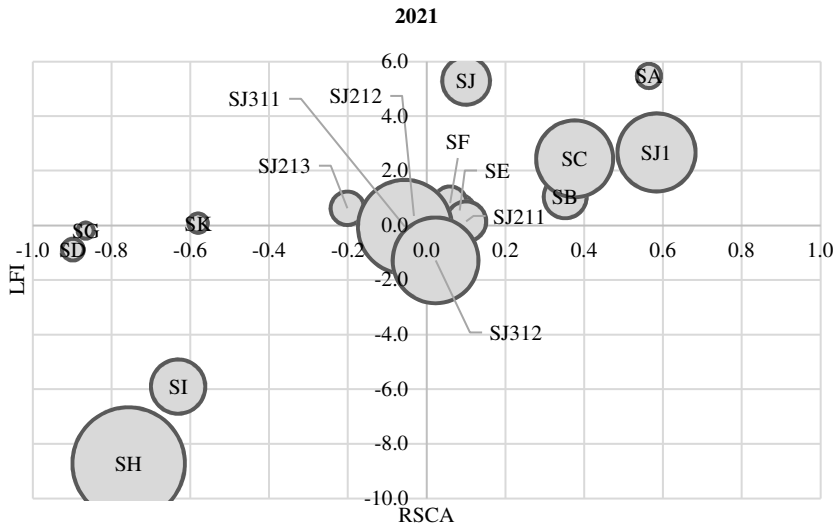
<b>LFI &gt; 0</b>	<b>Group C</b> Comparative disadvantage Better net-trade position $RSCA < 0$ and $LFI > 0$	<b>Group A</b> Comparative Advantage Better net-trade position $RSCA > 0$ and $LFI > 0$
<b>LFI &lt; 0</b>	<b>Group D</b> Comparative disadvantage Worse net-trade position $RSCA < 0$ and $LFI < 0$	<b>Group B</b> Comparative Advantage Worse net-trade position $RSCA > 0$ and $LFI < 0$
	<b>RSCA &lt; 0</b>	<b>RSCA &gt; 0</b>

Source: concept based on Widodo (2009).

**Figure 2.** 'Mapping' China's export of services in relation to the EU Internal Market



**Figure 2. Continued**



**Notes:**

- The size of the bubble denotes to the share of China's export of specific type of services in relation to the export of these services in the EU Internal Market.
- Abbreviations: SA – Manufacturing services on physical input owned by others, SB – Maintenance and Repair, SC – Transport, SD – Travel, SE – Construction, SF – Insurance and Pension, SG – Financial services, SH – Charges for the use of intellectual property, n.i.e., SI – ICT services, SJ – Other business services, SJ1 –R&D services, SJ211 – Legal services, SJ212 – Accounting and audit services, SJ213 – Business and management consulting, SJ311 – Architectural services, SJ312 – Engineering services, SK – Personal, cultural and recreational services.
- In Chart for 2021 data for subcategories of Other business services (SJ) are of 2020 (as data for 2021 is not available yet).

Source: own calculations based on Eurostat (2022).