

CHINA'S MARKET ECONOMY STATUS PROBLEM: IMPLICATIONS FOR THE CZECH STEEL INDUSTRY

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Abstract

In the European Union (EU) serious discussion about granting market economy status (MES) to China for the purposes of trade defence investigations arose in 2016 and the WTO Panel is currently settling this dispute between China and the EU. As the steel sector is very often the target of anti-dumping investigations, firstly, the paper is focused on the analysis of changes in the development of the Chinese, EU and Czech steel production and trade in the period 2001–2016. Secondly, it explores the revealed comparative advantage (RCA) in the steel sector of China and the Czech Republic and compares them. The research methods included the analysis of statistical data about steel production and trade and in order to find out the export competitiveness in the steel sector, the RCA index was used. The analysis confirmed that China had significantly increased its market share in the steel sector even without MES. Although China had recorded fewer steel products with RCA than the Czech Republic, its steel trade was in surpluses and its world market share had increased. China's competitiveness in the steel sector is probably influenced by some non-market factors. Thus, granting MES to China would support the Chinese steel exports to the EU market and have a negative impact on the Czech steel producers. The results of the analysis are discussed and graphically presented.

Keywords: Anti-dumping, China, Market Economy Status, trade competitiveness, steel industry, WTO

1. INTRODUCTION

China is currently the leading producer and exporter of steel and steel products in the world. However, China is also the main target of anti-dumping (AD) investigations among the World Trade Organization (WTO) members. Up to December 2016, the WTO members could use a methodology in AD investigations that was not based on a strict comparison with the domestic prices or costs in China *"if the producers under investigation cannot clearly show that market economy conditions prevail in the industry producing the like product."* [1] However, this methodology was disadvantageous for China that strived to get MES, which would result in lower AD duties for China, because the normal value would be constructed using domestic prices and costs rather than higher-priced third countries. As the term MES is not exactly defined in the WTO Agreements, the WTO members use this alternative methodology according to their national law. However, an analysis carried out by the European Commission in 2016 showed the strongest job losses, inter alia, in "Basic & fabricated Metals" and "non-metallic Minerals" if the EU grants MES to China. [2] With respect to the long-term tradition of steel industry in the Czech Republic, the object of this paper is to identify the changes in the steel production and trade in China and the EU with special focus on the Czech Republic in the period 2001-2016 and to determine the Czech competitiveness in steel trade in comparison with China.

This way, the paper brings a comparison of the Chinese steel production and trade with the EU and the Czech Republic after China's entrance into the WTO, i.e. in the period 2001-2016, and shows in which steel products China is more or less competitive than the Czech Republic. The following part of the paper is organised as follows: Firstly, the background of AD methodology in the EU will be introduced and the methods for exploring steel trade and export competitiveness in this paper will be performed. Secondly, the trends in China's steel production and trade in comparison with the EU and the Czech Republic will be shown in the period 2001-2016, and, thirdly, the Czech - Chinese steel trade competitiveness will be explored and the impact of granting

MES to China on the Czech steel trade competitiveness will be discussed. In the Conclusion, the main facts about the EU/Czech - Chinese steel production and trade will be summarised, also with respect to the anti-dumping investigations between the EU and China.

2. ANTI-DUMPING METHODOLOGY IN THE EUROPEAN UNION

Although the WTO members agreed that the possibility of using alternative methodology expired upon 15 years of China's entrance into the WTO, i.e. in December 2016, according to Article 15(d) of China's Accession Protocol, there was a different interpretation of China's Accession Protocol [3] and a serious discussion about granting MES to China took place in the EU for which China is the main target of anti-dumping investigations [4;5]. However, instead of the EU granting MES to China, the European Commission proposed a new methodology of the calculation of the dumping margin for countries with significant state-induced market distortions (the EU Regulation 2016/1036 on protection against dumped imports from countries that are not members of the EU) in November 2016. This proposal was accepted by the EU Council and the European Parliament in October 2017. The EU decision was based on the fact that market distortions in China had occurred all the time. As China did not agree with the EU stance, it asked for consultation in the WTO and the Panel is currently investigating this dispute (the code DS516).

2.1. Definition of steel products and data

Steel products are classified in a different way, for example as per (i) stage of manufacture of the product, (ii) shape and dimensions of the product, and (iii) the product appearance. As per the stage of manufacture, the range of steel products produced in the steel plants is usually grouped into three main categories, namely (i) crude steel products, (ii) semi-finished steel products, and (iii) finished rolled steel products. Crude steel production products are either in liquid state or in solid state. Liquid steel is normally used for the production of steel castings. Crude steel in solid form was previously considered as steel ingots, which are produced by pouring liquid steel into iron moulds of a shape appropriate for the subsequent processing into semi-finished or finished steel products. Semi-finished steel products are produced either by rolling or forging ingots or by continuous casting, and are normally intended for conversion into finished steel products. Finished rolled steel products can be (i) hot-rolled products, (ii) cold rolled products, and (iii) coated products. [6] In this paper, we analyse the changes in the production of crude steel and trade of semi-finished and finished steel products. The data about steel production and trade were obtained from the World Steel Association and are usually expressed in millions of tonnes (Mt). For the purpose of analysing the steel trade flows in 2001-2016 and finding the revealed comparative advantage for China and Czechia in the steel sector, Chapter 72 - Iron and Steel and Chapter 73 - Iron or Steel Articles of the Harmonised System Codes was used and the data in USD were obtained from the United Nation's Comtrade Database.

2.2. Measuring trade competitiveness

Competitiveness in international trade is a measure of a country's advantage or disadvantage in selling its products in international markets. [7] External competitiveness is often explored in literature from the point of view of export efficiency or export growth that results in export gains achieved from the market share [8]. Some authors explore the factors or sources of external competitiveness [9;10]. In this paper, I focus on finding the trade (export) competitiveness of China and the Czech Republic (the EU) through the market share, trade balance, i.e. if a country is able to export more than import, and the Revealed Comparative Advantage (RCA) index. The principle of the RCA index lies in the identification of sectors with a comparative advantage by comparing the country of interest's trade profile with the world average. The author of this concept is Bella Balassa; thus, the index that measures a country's comparative advantage is also called the Balassa Index. Although alternative forms of the RCA index have been developed by other authors, the widely accepted RCA index has this form [11]:

$$RCA_i = \frac{\sum_j x_{ijk} / \sum_j X_{ij}}{\sum_j x_{wjk} / \sum_j X_{wj}} \quad (1)$$

where x_{ijk} represents the exports of product k from country i to destination j , X_{ij} is the total export of country i to destination j , x_{wjk} is the total world export of product k to destination j and finally X_{wj} represents the total world exports to destination j . Consequently, the numerator means the share of exports of product k (i.e. steel products) in the total exports of country j , while the denominator represents the share of product k (i.e. steel products) in the total world exports across all countries. The RCA index takes a value between 0 and ∞ . The monitored country will achieve a revealed comparative advantage when the value of the index exceeds unity. When the value of the RCA index is lower than unity, the country will achieve a relative disadvantage in certain groups of goods, i.e. in Chapters 72 and 73 of the Harmonised System.

3. COMPARISON OF THE STEEL PRODUCTION AND TRADE OF CHINA WITH SELECTED COUNTRIES

During the last 16 years, China has become the leading world producer of crude steel and the world's largest steel exporter. While in 2001 China's share in the world crude steel production was less than 18%, it increased up to 49.7% in 2016. In comparison with the EU, when we consider all its 28 member states, there was an opposite trend. The EU's share in the world steel production declined from about 22% to about 10% during the period 2001–2016. This means that China has increased its crude steel production since 2001 from 151.5 Mt to 808.4 Mt, i.e. by 433%, while the EU recorded a decline from 187.5 Mt to 162 Mt, i.e. by almost 14% in the period 2001–2016 (see **Figure 1**). In the EU, namely Germany, Italy, France, Spain, Poland and Belgium are the major steel-producing countries. The Czech Republic took the 26th position among the world's leading producers of crude steel in 2016. [12]

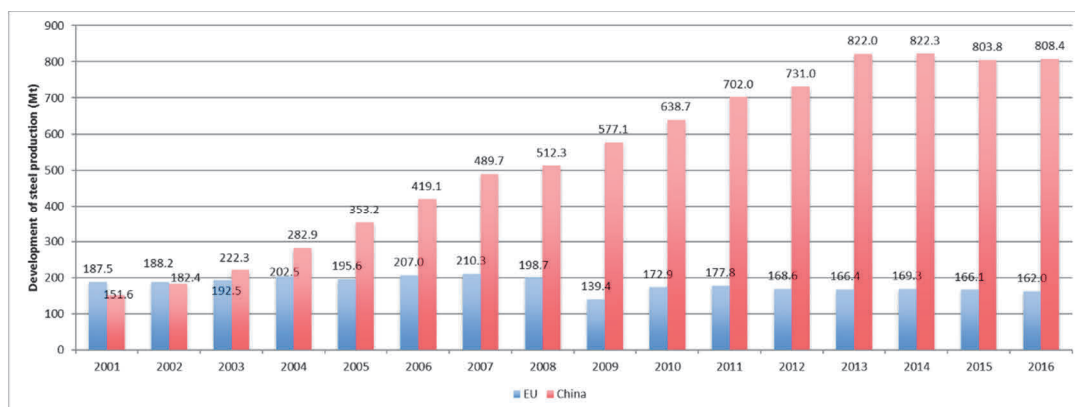


Figure 1 Development of steel production in China and the EU in 2001–2016 (Mt)

Source: own data processing, [13; 14]

The share of the Czech Republic in the EU crude steel production reached on average 3.3% in the period 2001–2016 (see **Figure 4**). After the entrance of the Czech Republic into the EU in May 2004 its share in the EU steel production remained similar to the share that the Czech Republic had achieved before its membership in the EU. This was influenced by the fact that the Czech Republic had already recorded a significant decline of the volume of steel production during the 1990s as part of the complete restructualisation of its economy. While at the beginning of the 1990s the Czech crude steel production reached 15.5 Mt [15], at the beginning of the 2000s it was only 6.3 Mt of steel. [14]

Besides the entrance of the Czech Republic into the EU, the growing Chinese steel production and overcapacity in the world market also did not have a significant impact on the share of the Czech Republic in

the EU steel production, which was, according to the author's own calculation, 3.4% in 2001, 3.5 % in 2004 and 3.27% in 2016. However, the Czech crude steel production per head significantly declined during the monitored period (see **Figure 2**). While China produced almost 459 kg of steel per head more in 2016 than in 2001, the Czech Republic's steel production declined by almost 115 kg per head, which was more than in the EU that recorded a decline of steel production by almost 65 kg per head in the period 2001–2016. Although the Czech crude steel production per head declined during the last 16 years, the production of crude steel in the Czech Republic accounted for 500 kg per head in 2016, which was a higher volume than in the EU (see **Figure 2**). More than the Czech Republic, China produced almost 576 kg of steel per head in 2016.

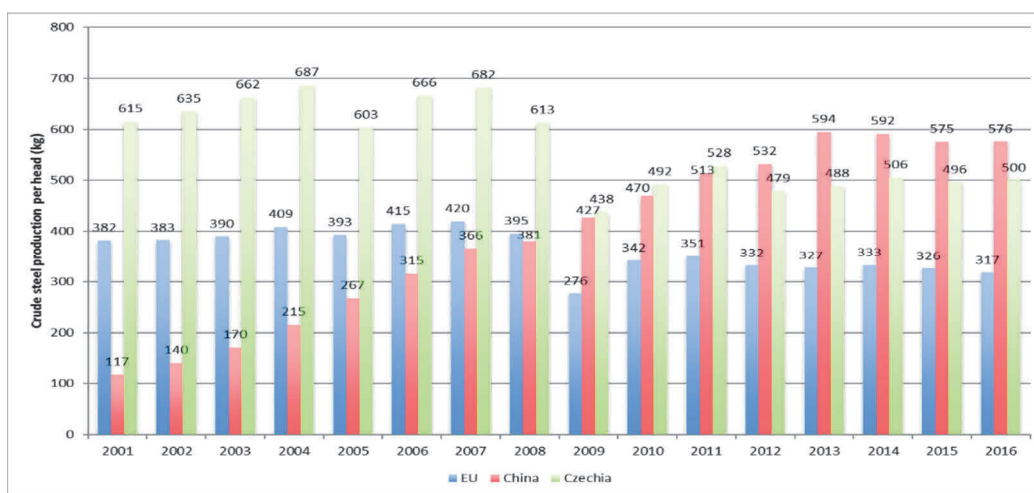


Figure 2 Crude steel production per head in the EU, the Czech Republic and China in 2001–2016 (kg)
Source: own data processing, [13; 14; 16]

Besides the increase of crude steel production, China increased its exports of semi-finished and finished steel products from 7.3 in 2001 to 108.1 Mt in 2016, i.e. by 1.385%, and, thus, increased its share in the world steel exports from 2.8% to 22.8% during the monitored period. In the EU, steel exports increased by 13% in the period 2001–2016 and its share in the world steel exports declined from 47.7% in 2001 to 29.7% in 2016 (see **Figure 3**).

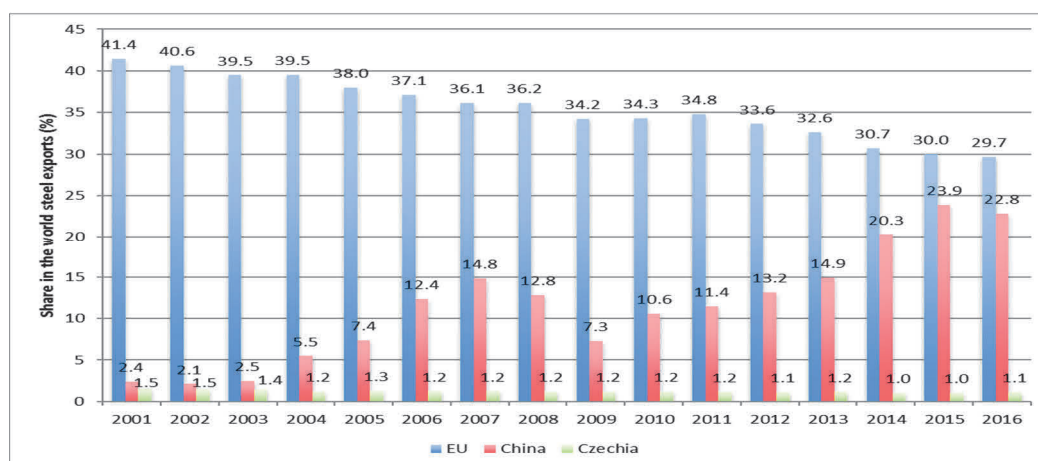


Figure 3 Share of China, the EU and the Czech Republic in the world steel exports in 2001–2016 (%)
Source: own data processing, [13; 14]

China exports its steel products especially to South Korea, Vietnam, the Philippines, Thailand, Indonesia, India, Pakistan, Hong Kong, Malaysia and Taiwan. These ten countries accounted for 53% of all China's steel exports in 2017 [17]. Although the EU member states are not among China's main destinations for its steel

exports, the growing Chinese market share resulted in many anti-dumping or anti-subsidy investigations. From the whole 43 completed and on-going investigations in the area of steel products that the European Commission has already made against third countries since 2003, 22 investigations have been focused on China. The predominant part of these investigations included anti-dumping proceedings (19 cases), while 3 cases covered anti-subsidy proceedings. [18] The main reason for using anti-dumping and anti-subsidy measures against China was the import of cheap steel products from China. However, while China argues that it offers competitive prices because it has large-scale steel production [19], the EU considers the source of China's steel competitiveness to lie in the high level of government intervention in the steel industry and a high share of state-owned enterprises (SOEs) in the sector. Anti-dumping investigations that were carried out by the European Commission found that Chinese steel producers benefit from state support measures from financial institutions, inter alia, by access to finances at non-commerce terms. [20] According to the OECD, within the list of the largest steel producers in the world, the most prevalent are China's SOEs. [21]

Although China's crude steel production and trade has increased significantly during the last 16 years, the EU has exported a higher volume of crude steel than China all the time (see the left-hand side of **Figure 4**). However, while China recorded a decline of its steel imports from 25.6 mill. Mt to 13.6 mill. Mt, i.e. by almost 47% in the period 2001–2016, the EU recorded an increase of its steel imports by 29% at the same time (see the right-hand side of **Figure 4**). The development of the steel exports and imports led to the net exports of China, which it has recorded since 2005, but the EU recorded negative net steel exports in 2007, 2008 and 2016.

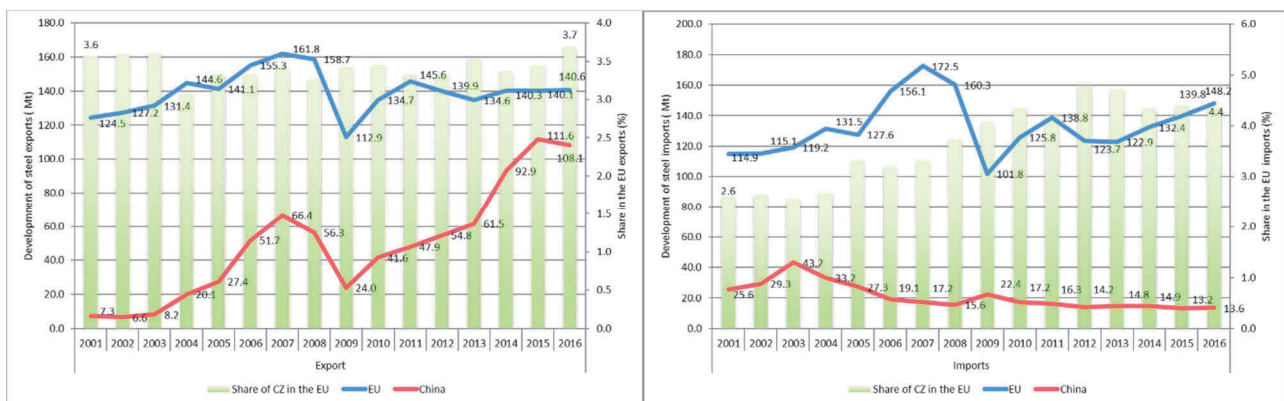


Figure 4 Development of the steel exports (the left side of the Figure) and imports of China and the EU (the right-side of the Figure) in 2001–2016 and the share of the Czech Republic in the EU steel exports (the left side of the Figure) and imports (the right-side of the Figure)(Mt and %)

Source: own data processing, [13,14]

The Czech steel exports increased from 4.4 Mt to 5.2 Mt, i.e. by 17% in the period 2001–2016, and their share in the EU steel exports also increased moderately (see the left-hand side of **Figure 4**). However, more than exporting them, the Czech Republic currently imports steel products. Since 2001, the Czech Republic has recorded an increase of its steel imports from almost 3 Mt to 6.5 Mt, i.e. by almost 117%, and its share in the total EU steel imports reached 4.4% in 2016 (the right-hand side of **Figure 4**). At the same time, the Czech Republic was the 20th largest steel importer in the world. [15] Thus, the Czech net exports of semi-finished and finished steel products have been negative since 2007. While in 2001, the Czech exports of steel products were by 1.5 Mt higher than its steel imports, as a member of the EU, i.e. in 2004, the Czech net steel exports declined to only 924 thousand tonnes. In 2016, the Czech Republic recorded a deficit in the steel trade that amounted to -1.3 Mt. The Czech Republic imports steel products from over 50 countries and territories [12]. Besides the EU, namely Germany, Poland, Slovakia, Italy, Austria, etc., Russia and Switzerland are the main destinations of the Czech steel exports and imports. The steel trade deficit can be the result of growing

competition in the EU and the world market, but also the changing structure of the Czech exports, in which high-technology products take a growing share.

4. TRADE COMPETITIVENESS OF THE CHINESE AND CZECH STEEL INDUSTRY

As has been shown, China has recorded an increasing trend in the area of steel production and trade after its entrance into the WTO, and, thus, it has become a major competitor of the EU in steel trade. [22] Although China is not the main trade partner of the Czech Republic, the total trade balance (TB) of the Czech Republic with China was negative during the whole time. In 2016, the trade deficit with China amounted to -15.7 billion USD (see the left-hand scale of **Figure 5**). Although steel products shared in the Czech total trade with China by an average of 1.2% (HS 72) and 2.4% (HS 73) during the period 2001–2016, steel trade was also negative for the Czech Republic (the right-hand scale of **Figure 5**). The largest values of trade deficit were recorded in HS-73. This shows a higher trade competitiveness of China in the steel sector in comparison with the Czech Republic.

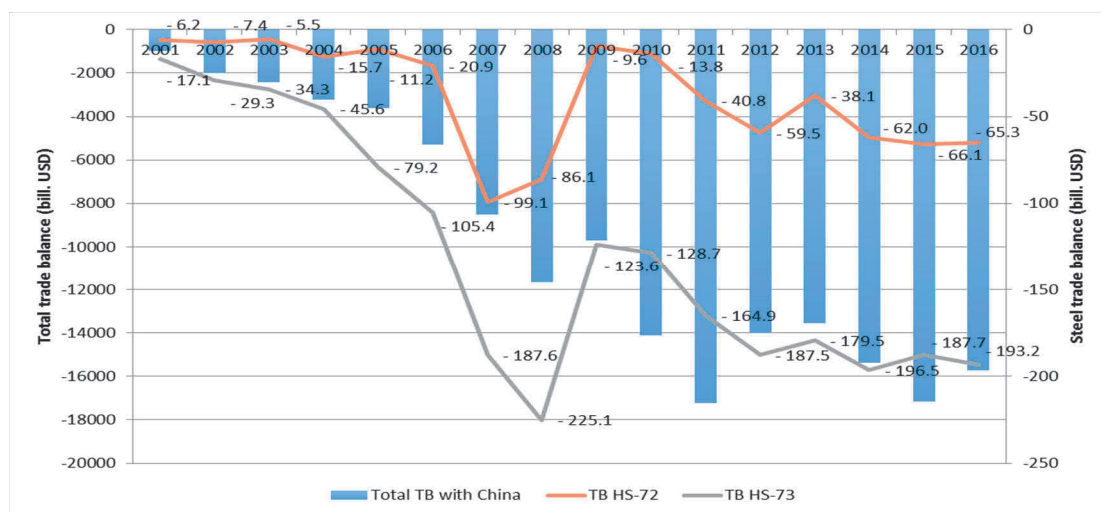


Figure 5 Czech trade balance with China in 2001–2016 (bill. USD)
Source: own data processing, [23]

Both countries, the Czech Republic (CR) and China, recorded an RCA in steel trade on the level of HS Chapters. China reached a higher RCA index than the Czech Republic in HS-72, while the Czech Republic recorded a higher RCA index than China in HS-73 (see **Table 1** and **Table 2**). However, on the level of HS Headings the Czech Republic recorded a higher number of steel products in which it had achieved an RCA than China. In Chapter HS-72 (Iron and Steel), China achieved only six Headings with an RCA in comparison with the Czech Republic that recorded 15 Headings with an RCA. In Chapter HS-73 (Iron or Steel Articles), the number of steel products with an RCA was similar for both countries, i.e. China achieved 8 and the Czech Republic 9 Headings with an RCA. Besides this, the values of the Czech RCA index were usually higher than the values of the Chinese RCA index. However, many data about the export of the products in Chapter HS-73 were not available; thus, it is not possible to compare steel data between Chapters, only between countries. Although China has recorded a revealed comparative disadvantage in many steel products, it is the leading crude steel producer in the world, which has significantly increased its market share in the world during the last 16 years. Thus, the competitiveness of the Chinese steel trade may be linked with market and competitiveness factors (such as a cheap labour force), but also government measures and policies. [24] As the Chinese expansion in the steel sector is connected with some forms of protectionism, this is also reason for frequent AD investigations and steel disputes in the WTO. [25]

Table 1 Revealed comparative advantages of China and the Czech Republic in HS-72 exports, 2016

HS Code	China	CR	HS Code	China	CR
72	1.11	1.02	7215	0.49	3.81
7201	0.07	0.13	7216	0.02	1.71
7202	0.30	0.48	7217	0.07	3.92
7203	0.00	0.22	7218	0.02	0.57
7204	0.00	1.69	7219	0.37	0.37
7205	0.50	0.36	7220	1.65	0.27
7206	0.00	1.70	7221	0.00	0.01
7207	0.00	0.67	7222	1.47	0.42
7208	0.05	0.87	7223	0.63	4.23
7209	0.78	0.19	7224	0.63	3.32
7210	1.87	0.21	7225	0.35	0.44
7211	0.21	2.84	7226	0.84	1.38
7212	1.11	0.97	7227	0.02	1.06
7213	0.07	4.63	7228	2.17	1.04
7214	0.30	1.58	7229	0.35	5.07

Source: own calculation

Table 2 Revealed comparative advantages of China and the Czech Republic in HS-73 exports, 2016

HS Code	China	CR	HS Code	China	CR
73	1.52	2.29	7322	0.33	5.03
7301	309.65	2058.10	7323	3.80	0.72
7302	1222.81	7822.15	7324	3.13	0.85
7208	3849.76	5667.17	7325	0.76	5.87
7320	0.48	3.28	7326	1.18	3.51
7321	2.80	1.26			

Source: own calculation

5. CONCLUSION

What would the implications of granting MES to China be for the Czech steel industry? The analysis of the Chinese steel production and trade in the long-term showed that China had significantly increased its market share after its entrance into the WTO and had become more competitive in the world steel market. In 2016, almost half of the world crude steel production came from China, which significantly contributed to the steel overcapacity in the world. The overcapacity usually led to introducing some protectionist practices, such as export limitation, export duty on materials, etc. [26]

Although China is not Czechia's major trade partner and steel trade does not play an important role in their bilateral trade, trade with China was in deficit for the Czech Republic for the whole time. More than to China, the Czech Republic exports to the EU. The Czech share in the EU steel production remained stable and in the EU the steel exports increased moderately during 2001–2016. However, the Czech steel trade has been in

deficit since 2007 and its steel production per head has declined significantly during the last 16 years. The trend in the development of the Czech share in the world steel exports shows that the Czech Republic is less competitive than before, although it has achieved an RCA in more steel products than China. As the EU considers SOEs as the main source of the Chinese steel competitiveness, granting MES to China would thus support the Chinese steel exports to the EU still more, which would create a higher competition for the Czech steel producers and exporters in the EU market. China finds itself in a similar situation to that in which the Czech Republic was thirty years ago. China has to reduce its overcapacity, reorganise and integrate companies within the steel sector and especially remove non-market distortions in the steel sector. Although the Chinese government (including the local governments) announced in its 13th Five-Year Plan (FYP), and in more detail in the 13th FYP for Steel for the period 2016-2020, to make structural changes on the supply-side in order to solve the problem of overcapacity, the steel industry is still considered as an important, fundamental sector of the Chinese economy [20].

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