

# Competitiveness of the Textile Sector of Croatia in Trade with the European Union

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## Abstract

*One of the sectors of the European economy affecting the effective implementation of the Europe 2020 Strategy is the textile industry sector. In the current financial perspective, the European Union is making a significant contribution to maintaining its growth with the aim of creating opportunities for job creation. Croatia's accession to the European Union (EU) gave new perspectives for future economic and social development of the country. Full integration of the country is also conducive to generating new challenges, especially for economic entities operating in the Croatian textile sector. The aim of this paper is to examine the competitive position of the textile sector of the Croatian economy in the period 2005-2016. Preliminary analysis of the problem allowed to formulate the following research hypothesis: Croatia's accession to the European Union has a positive impact on improving the competitiveness of the Croatian textile sector in the context of implementation of the Europe 2020 Strategy.*

**Key words:** *Croatian economy, textile industry, European integration, comparative advantages, competitiveness.*

circular economy or smart technical textiles. An interesting initiative supporting the development of the textile sector in Europe was the establishment of *Regio-Tex* in 2016, which brings together entrepreneurs and public authorities interested in strengthening the innovation potential of regional textile centers through clusters or training centers.

Over the past two decades, the European textile sector has undergone a profound transformation. Since 2004, the EU textile and clothing industry has increased its productivity by 36%. Mass low value-added production, standard fibres, textiles and clothing have been no longer functioning in Europe, which has resulted in a reduction in total turnover and employment in the sector on the one hand, and a significant improvement in the competitiveness of the industry on the other [1]. Statistical data describing the textile market in the EU indicate that in the years 2010-2014 the number of enterprises operating in this sector gradually decreased (by approx. 8% over this period). A change in this unfavorable trend has been observed since 2015, with a significant increase in the number of textile enterprises by 4% in 2015 compared to 2014. Enterprises operating in this sector are generally family-owned companies employing up to 9 persons, and therefore 73% of textile trade is concentrated within the EU and there is no significant export expansion. In recent years, an increase in employment in the textile sector (by 0.7% in 2015 compared to 2014) was also observed. The sector employed some 1.7 million people in 2015 [2]. The textile and clothing industry now

accounts for 5.6% of employment in the European Union. However, in the following member states the relative share of the textile industry in the total production is significantly higher: Bulgaria (22%), Portugal (20%), Romania (16%), Lithuania (15%), Latvia (12%), Estonia (11%), Croatia (10%), Italy (9%) and Greece (9%). In 2015, the EU textile and clothing industry reached a turnover of 169 billion euro, an increase of 1.4% in relation to the previous year. The EU is currently the second largest (after China) exporter of textiles and clothing in the world (24% and 26% of world sales, respectively) [2]. Italy is the largest exporter in the European textile sector, accounting for 35.6% of total EU exports, followed by Germany, France and the United Kingdom; however, their total share in exports is only 10% [3].

In the current economic and social reality, large economic sectors such as transport, construction, energy, food, agriculture, personal protection and healthcare are constantly seeking new and innovative material solutions that fit in sustainable development strategies and are safer or more affordable. As a result, new niches for textile markets appear that have growth potential in Europe and in the world. It can therefore be assumed that the textile sector of the European Union has significant development prospects. According to the vision of development of the textile industry by 2025 presented by the European Commission, it should be a strategic, innovative and competitive EU sector that uses advanced manufacturing techniques and engages in cross-sectoral cooperation [4]. At the

## Textile market in Croatia against the background of the EU and conditions for its development

The European textile industry is becoming increasingly innovative and competitive and it plays a significant role in economic development. Faced with competition from low-cost countries such as China and India, European manufacturers working in this industry have to care about quality and follow current trends as well as meet ever-increasing customer expectations, which should lead to the growth of the economic value of this sector. This is why there is a clear interest from the member states and candidate countries in substantially strengthening the industry on a European and even global scale. *Horizon 2020* provides funding for projects related to the development of the textile market. Actions in this area are related to such issues as the

same time, the European textile and clothing industry should support policies aimed at a high level of environmental protection, and the protection of employees and consumers, guaranteeing a good quality of life and social integrity in Europe.

One of the member states that may see growth opportunities in the development of the textile market of the European Union is Croatia, which joined the organisation on 1 July 2013. Croatia's gross domestic product in 2016 amounted to 10,900 euros per capita [5]. Since the start of Croatia's accession negotiations with the European Union, its GDP rose from 36506 million euros in 2005 to 45557 million euros in 2016 [6], with slight declines between 2007 and 2009 which were due to the effects of the financial crisis. The main economic activities of Croatia are agriculture, the food industry, textile industry, wood industry, metal processing, the chemical industry, oil industry, electrotechnical industry, the construction trade, shipbuilding, maritime affairs and tourism. The share of Croatia's total production in the GDP is currently 13%, followed by wholesale, retail (9.5%), and real estate (9%). It should be noted, however, that the share of the textile, clothing and leather industry in the GDP is very low, amounting to 0.6% [7].

Despite its long tradition, the textile market in Croatia is characterised by the following problems that limit its development [8]:

- too much business fragmentation;
- poor pro-environmental concentration;
- lack of investment in marketing, innovation, research and education that could motivate entrepreneurs and businesses to increase their competitiveness;
- insufficient development of own brands; no interest in creating own brands;
- poor representation of companies in the international market; insufficient knowledge about developments in the world market;
- low level of education;
- too slow reaction to market changes and customer needs;
- too much spatial unevenness of companies in the sector (75% are located in the north-western part of the country).

The textile sector is, however, the second largest employer in manufacturing

industry in the Croatian economy, and it is currently emerging from a long crisis. From the financial perspective of 2014 – 2020, this sector qualifies as a strategic sector for the development of the national economy. The most important centers of trade in textiles are: Zagreb, Varaždin, Vukovar, Čakovec, Karlovac, Duga Resa and Garešnica, where textile clusters are located. In 2014, a year after Croatia's accession to the EU, textile production increased by 38% to a total of 84 mln euros.

About 1,500 companies currently operate in the Croatian textile sector, generating 4% of employment and average monthly salaries of around 586 euro. Foreign investments in Croatia's textile market has reached the level of 200 million euros. Croatian authorities offer support for foreign investors in the textile sector by funding up to 60% of the investment costs, it is also possible to obtain up to 18,000 euros for each newly created workplace. Support for capital investments in the amount of 1 million euros in equity investments and tax exemptions for new investments are also envisaged [9]. The Croatian industrial strategy will also provide special support measures by 2020, such as reductions in the cost of social security for older employers of export – oriented enterprises, which is particularly important for the development of the textile sector, which employs people aged 45 and older [10]. The opening of Croatian markets to Europe led to an influx of offers from western fashion brands to the economy. The market niche disclosed in this way provided an excellent opportunity for greater application of textiles in the process of the development and use of technical materials, as well as in the production of clothing and footwear.

## ■ Research methodology

One of the most important factors stimulating the country's economic growth is foreign trade, and its value is indicative of its competitiveness. The most commonly used measure of the country's competitive position is RCA – *Revealed Comparative Advantage* [11]. The basis of the theory of comparative advantage, whose main precursor is considered to be David Ricardo, is the assumption that every country should produce and sell abroad what it produces comparatively better than others. It is assumed that such a country should import goods that it

produces less efficiently [12]. The comparative advantage is thus defined as the ability of the economy to produce a particular good in a more efficient way than it is produced by other economies, and it is expressed in the directions of export and import specialization of the country [13]. The theory of comparative advantage is a useful economic model which allows to explain the development of intersectoral trade. The model's drawback is that it does not explain the sources of differences in labour productivity between countries, which are the basis for determining the relative costs, and thus the core of the theory.

SITC products were selected for data analysis. The Standard International Trade Classification (SITC) was developed by the United Nations and is used for foreign trade statistics (value of exports and imports and volumes of goods). It allows an international comparison of commodities and industrial goods [14].

The main categories are:

- SITC 0 + 1 Food, drinks and tobacco;
- SITC 2 + 4 Raw materials
- SITC 3 Mineral fuels, lubricants and related materials;
- SITC 5 Chemicals and related products, n.e.s.
- SITC 7 Machinery and transport equipment;
- SITC 6 + 8 Other foods manufactured, including textile yarn, fabrics, made-up articles, n.e.s., and related products [15].

An in-depth analysis of comparative advantages was made on the basis of Eurostat data on the textile sector broken down by Chapters 50 to 60 and 63 in accordance with the Combined Nomenclature of Foreign Trade (CN). The analysis was based on data from the period 2005-2016. The starting year time coincides with the beginning of Croatia's accession negotiations with the European Union.

## Statistical analysis of disclosed comparative advantages of the textile sector of Croatia in trade with the European Union

The data collected by Eurostat indicate how trade between Croatia and other European states has developed over the last decade. The main importers and exporters of goods in Croatia's trade are Italy and Germany, with a joint share of

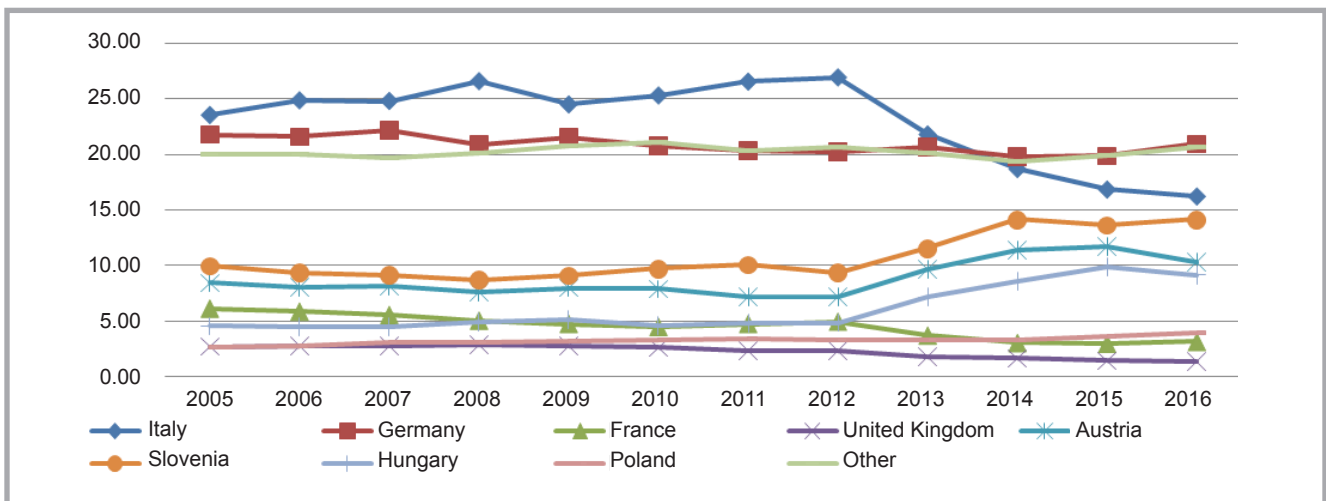


Figure 1. Share of selected EU countries in imports from Croatia (in %). Source: Own elaboration based on Eurostat data.

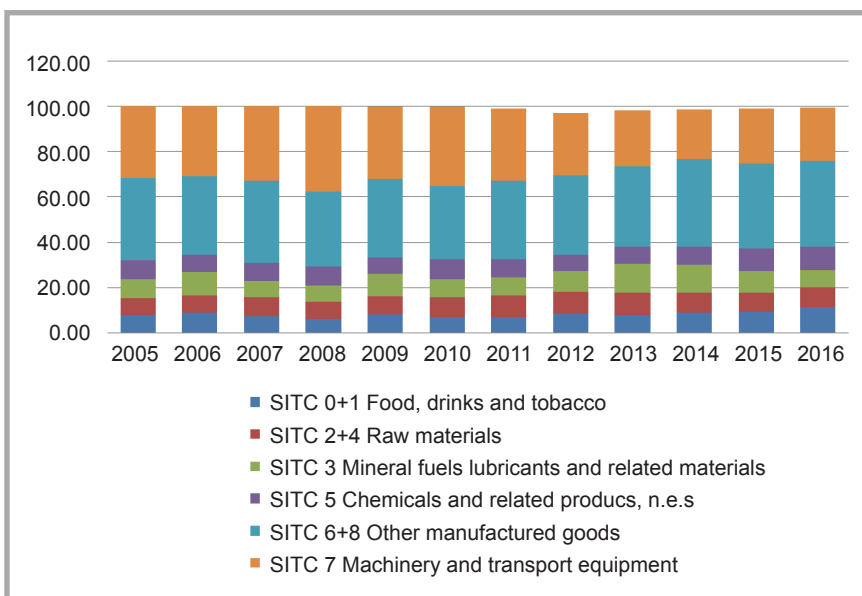


Figure 2. Commodity structure of Croatia's imports according to SITC. Source: Own elaboration based on Eurostat data.

around 50%. However, this share is clearly declining in favor of Austria, Slovenia and Hungary (Figure 1). It is possible that these countries will soon become the main trading partners of Croatia.

Starting from 2012, a clear change in Croatia's main trading partners is visible. The most spectacular decline was observed in trade relations with Italy, which reduced its share in imports by 6% after 2012. Italy was replaced by Austria, Slovenia and Hungary (increase of 2.5%, 2.21% and 2.33%, respectively). The share of other European countries in the period 2005-2016 remained unchanged.

Figure 2 shows the share of particular product groups in Croatia's imports. The most popular product groups were SITC 6+8 and SITC 7. However, there

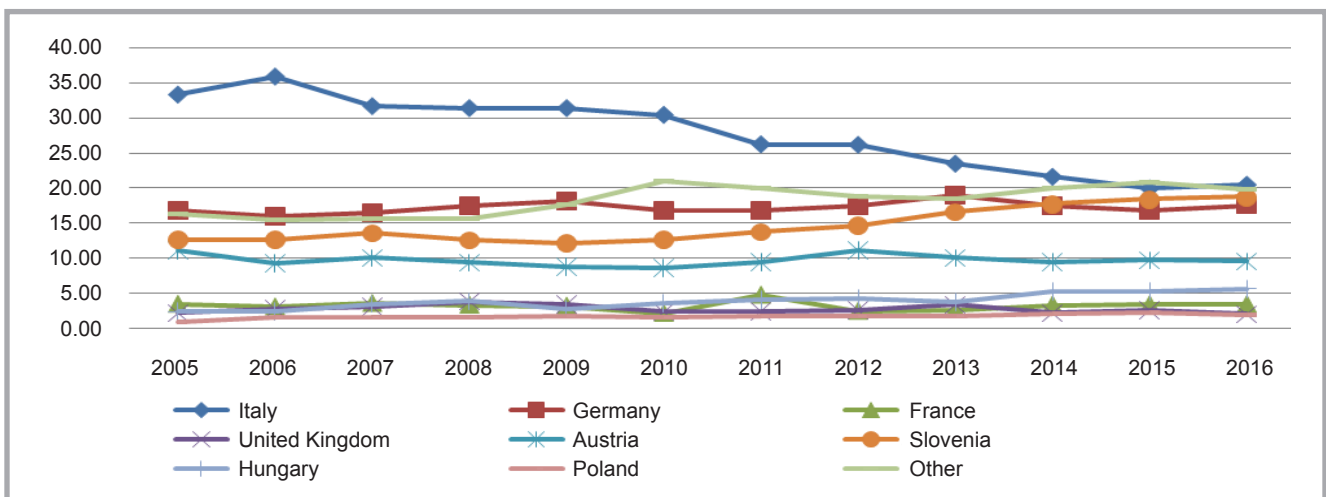


Figure 3. Share of selected EU countries in Croatia's exports (in %). Source: Own elaboration based on Eurostat data.

is also a growth in the share of imports of SITC 6+8, three of which are the leather, paper and textile industries. In 2016, compared to the base year 2005, imports of these types of goods increased by 3%, while the difference between the share of SITC 6+8 and SITC 7 imports was 5%, which increased significantly over the period analysed. There was an increase of 26% in the share of SITC 6+8 in imports in 2016 compared to the base year 2005.

A similar trend was visible in exports (Figure 3). Croatia's main export partners during the period analyzed were Italy and Germany, whose share equalled approx. 50%. However, after 2011 this share began to gradually decrease and in 2016 it was 23% lower than in the base year 2005. Italy and Germany started to be replaced by Austria, Slovenia and Hungary, which increased their share by 28% in 2016 in comparison to the base year 2005. The change that took place had been triggered by the simplification of trade procedures between member states as well as by greater flexibility in production and the low cost of wages. Important was also the change of approach to the marketing and promotion of own brands through participation of representatives of the textile and clothing market in both national and international fairs.

The largest share in exports from Croatia to the European Union is observed in the case of SITC 6+8 (Figure 4). The particular growth of the value of this group could be observed directly after Croatia's accession to the EU. It should be noted that according to the report *Textile And Clothing In Croatia*, there has been an

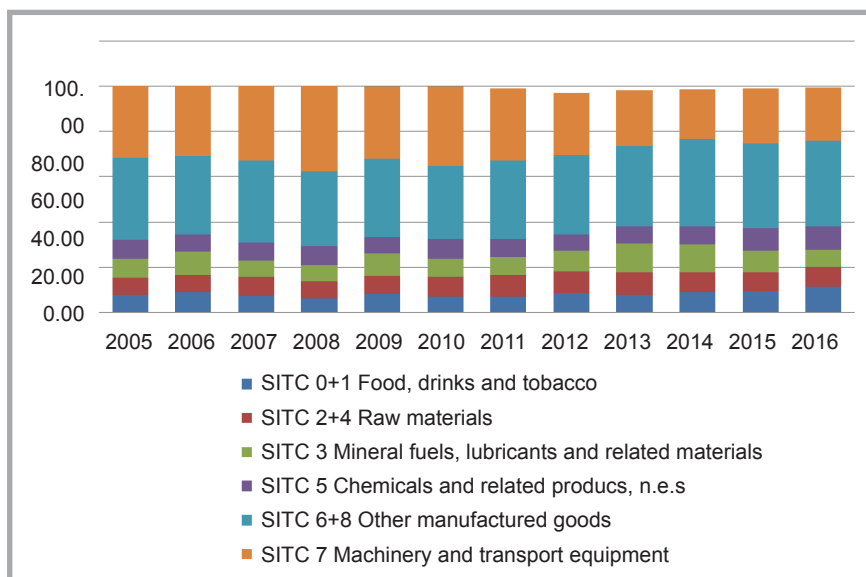


Figure 4. Croatia's commodity export structure according to SITC. Source: Own elaboration based on Eurostat data.

increase in the textile sector from 212 million to 257 million euro (an increase of approximately 21%) compared to the first eight months of 2013, whose sector is part of the group SITC 6+8 [16]. The largest share in exports during the period analysed was observed in case of SITC 6+8, which remained at an average level of 35.3%. However, after Croatia's accession to the EU, this share increased significantly and in 2016 it was 37.7%, which represented an increase of 4% compared to the base year (33% in 2005). It can therefore be concluded that exports of goods from Croatia is dominated by products in the group SITC 6+8, which is a part of the textile and clothing sector, whose share is 14% higher than that of the second group – SITC 7 (mechanical equipment).

An initial analysis of trade between Croatia and the other European states based on the SITC 0-8 standard level of international trade, confirmed the assumption that the dominant commodity group in trade was SITC 6+8 goods, which is part of the textiles sector. For further in-depth analysis of comparative advantages, Eurostat data on the textile sector were broken down into sections G\_50 – G\_60 and 63 according to the Combined Nomenclature of Foreign Trade (CN)<sup>1)</sup>.

The research conducted on the competitiveness of the textile sector in Croatia resulted in the calculation of indicators, i.e. RCA – comparative advantage ratio of exports, IMP – import penetration index, and RTA – index of relative trade advantage. On this basis, comparative

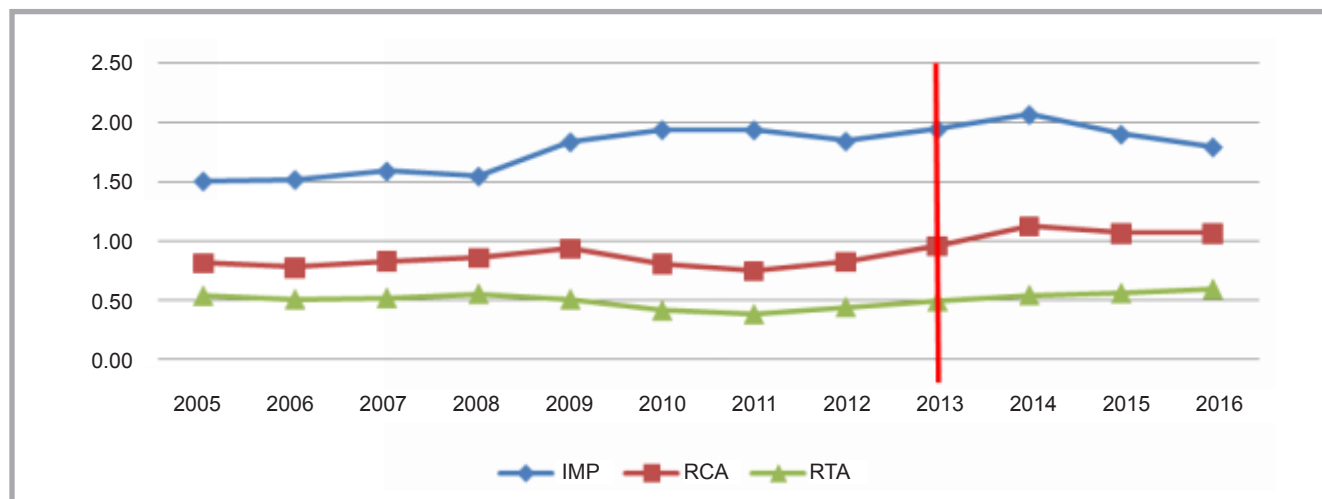


Figure 5. Comparative advantages in Croatia's textile sector. Source: Own elaboration based on Eurostat data.

advantages in the textile sector of Croatia were identified (*Figure 5*). Values of indicators RCA and RTA exceeding 1.0 are indicative of competitive advantage, while the IMP indicator exceeding 1.0 indicates lack of advantage and demonstrates the marketability of a particular commodity group.

The analyses conducted allow to state that Croatia achieved comparative advantage in exports of textile products after accession to the European Union, which gave a positive RCA exceeding 1.0, which only reached its desired value after 2013. This means that only in this period did the entire textile export sector achieve a high competitive position, which appears to be a static effect of Croatia's accession to the European Union. The RCA index for the Croatian textile sector indicates a fairly stable upward trend in the competitive position of the textile sector towards strong comparative advantage, particularly after accession to the European Union. An impact of enterprises (closer environment) on the development of the competitive position of the Croatian economy is visible e.g. in the change of management to a more efficient one, an increase in the efficiency of work, modernisation of the infrastructure in enterprises, optimization of costs, opening to new markets and external conditions (distant environment) which include access to external sources of business funding, freedom of establishment of enterprises, modern infrastructure, fighting corruption and minimisation of bureaucracy. In this context, fiscal policy affecting exchange rate policies and exchange rates is also important.

The value of the IMP indicator, which in the period analysed exceeded 1.0, indicates the absorbency of the textile market originating in the European Union. This indicator, despite unfavorable values showing that there was no comparative advantage after Croatia's accession to the European Union, is gradually decreasing – which should be read as a positive trend.

RTA allowed to analyse the competitive advantage of the textile sector by weighing up the relative benefits of exports and imports. The analysis showed that the textile sector in Croatia did not achieve comparative advantages in this respect, but, similar to the IPM, its level rose to 0.6 in the year 2016, the highest level achieved since 2005.

## Summary

The textile sector in Croatia is in a difficult phase of coming out of the crisis. Nevertheless it is particularly difficult due to the direct proximity of economies that have cheap labour resources and are open to external markets. However, the traditions of textile production in Croatia, dating back to the beginning of the twentieth century, are strong, and there is a good chance that along with the deeper integration of Croatia with the European Union, the sector will develop. It is worth noting that this development can be achieved through new trade agreements, especially in the context of the change of Croatia's major trading partners. Until 2012, less than 50% of commodity trade had been related to agreements concluded between Croatia and Italy and Germany. After accession, the share of Hungary, Austria and Slovenia increased significantly. Analysis of the structure and dynamics of trade shows that Croatia, previously associated with the tourism sector, has a strong potential for development in the textile sector. During the period analysed, the products of this sector accounted for more than 35% of exports.

Empirical research allowed to positively verify the initially posed hypothesis: *Croatia's accession to the European Union has a positive impact on improving the competitiveness of the Croatian textile sector in the context of the implementation of the Europe 2020 Strategy*. This is confirmed by the observed increase in the competitive position thanks to revealed comparative advantages in textile export after 2013, decreasing import absorption (IMP) and increasing RTA (relative trade advantage index). Although the only indicator that directly shows the achievement of advantages is RCA, the positive changes in the IMP and RTA ratios confirm the research hypothesis.

## Editorial note

<sup>1)</sup> G\_50 Silk; Wool, G\_51 fine or coarse animal hair; horsehair yarn and wove; G\_52 Cotton; G\_53 Other vegetable textile fibres; paper yarn and woven fibre; G\_54 Man-made filaments; G\_55 Man-made staple fibres; G\_56 Wadding, felt and nonwovens; special yarns; twine, cordage...; G\_57 Carpets and other textile floor coverings; G\_58 Special woven fabrics; tufted textile fabrics; lace; tape; G\_59 Impregnated, coated, covered or laminated textile fabrics; G\_60 Knitted or crocheted fabrics; G\_63 Other made-up textile articles; sets; worn clothing.

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