

Quality Upgrading of Productions: The Winning Strategy of Italian Exporters

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- ◆ *A sizeable part of the Italian manufacturing system has engaged in the last decades to upgrade the quality of its productions in response to cost competition from emerging industrial economies. Quality upgrading has resulted in the gradual repositioning towards market segments where to leverage on Made in Italy recognized strengths: creativity, specialist knowledge, flexibility, attention to detail and to customer needs.*
- ◆ *Italian exporters have been able to translate such quality upgrading strategy into higher average unit values of output, improving their pricing power relative to other European countries, both before and after the global financial crisis.*
- ◆ *The negative differences of Italy vis à vis Germany, France and UK in terms of average unit values of export for the same products, sold in same foreign markets and in the same amounts, have lowered substantially since the beginning of 2000s, while the positive difference vis à vis Spain has continued to grow in the same years. For the first time, in 2017, the pricing power of British manufacturing exporters has been equalized by Italian companies, filling a gap of 19 percentage points since 2002. French exporters had still an advantage of 4 points on average in 2017, 13 points less than it was in 2002.*
- ◆ *The Italian upgrading strategy has not come, on average, at the expenses of business value. An increase by 10 percent of the unit value for the average product exported has been associated with an increase in the value of export by 0.8 percent between 2002 and 2007, while the association is null between 2007 and 2017. Moreover, quality upgrading has gone hand in hand with the worldwide increase of Italian export penetration.*
- ◆ *The benefits of the Italian upgrading strategy are not evenly distributed across markets and industries, though. The best performances in terms of pricing power are found for products sold in global niches, when trading with advanced economies or with Central and Eastern European countries, and within traditional manufacturing sectors.*
- ◆ *These differences call for industrial policies to continue along the lines traced in recent years. Sustaining a deeper coordination of innovation efforts along the supply chains, and helping small and medium-sized enterprises to design and implement effective internationalization strategies should be at the top of the policy agenda.*

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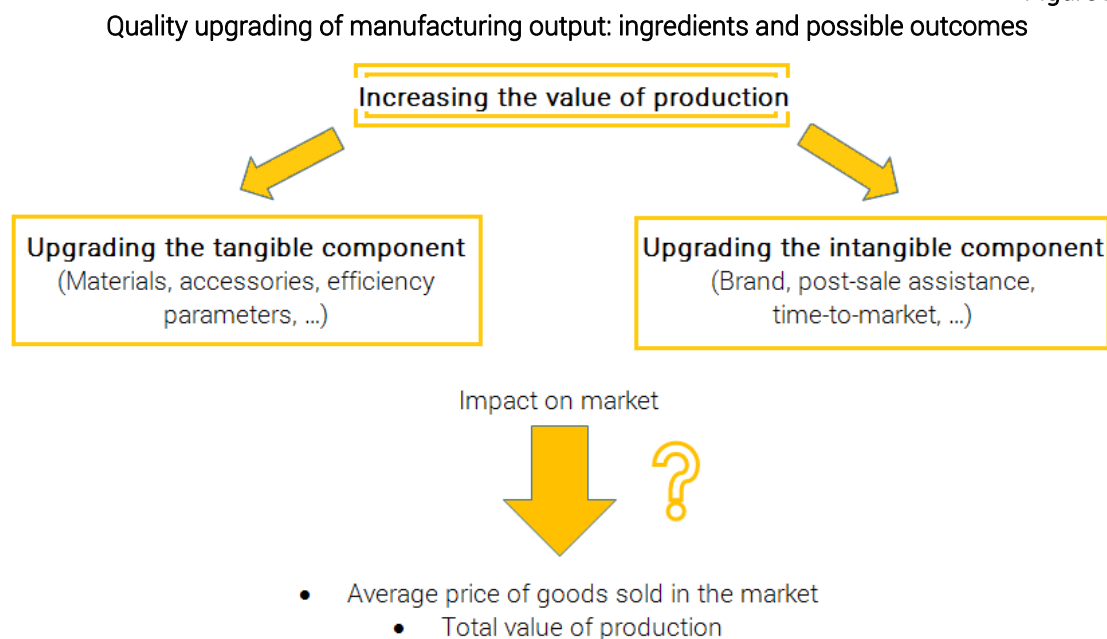
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Why it matters to account for quality upgrading In response to cost competition from emerging industrial economies (China, Eastern EU countries and Turkey at the forefront), a sizeable part of the Italian manufacturing system has engaged to upgrade the quality of its productions. Markets for standardized and easy-to-imitate products have been gradually abandoned in favor of global segments where to leverage on Made in Italy recognized strengths: creativity, specialist knowledge, flexibility, attention to detail and to customer needs¹.

Strategic repositioning has mainly occurred within the boundaries of existing technological specializations, through a mix of horizontal and vertical diversification: the former has consisted of changes towards new and more valuable products, while the latter of changes towards more valuable varieties of existing products. Such intra-industry shifts towards higher quality products explains why the inter-sectoral composition of Italian manufacturing output has remained relatively stable over time, despite the deep structural changes in the global competitive landscape.

However, quality upgrading is not easy to capture in the data and poses serious problems of correct measurement even to the official statistics². The reason is that the analysis of quality changes requires detailed and repeated information about different physical attributes of goods which are hard and costly to collect. Moreover, an increasing portion of product value is intangible – resulting from marketing, sales and post-sales investment – so that correct evaluation of quality changes is even harder to accomplish (Figure A).

Figure A



Source: CSC.

¹ Many Italian works have been dedicated to this issue. Among others: De Nardis S., Traù F., *Il modello che non c'era. L'Italia e la divisione internazionale del lavoro industriale*, Soveria Mannelli, Rubbettino, 2005; Lanza A. e Quintieri B., *Eppur si muove. Come cambia l'export italiano*, Soveria Mannelli, Rubbettino, 2007 eds.; De Nardis S., *Imprese italiane nella competizione internazionale*, Milano, F. Angeli, 2010 eds.; Arrighetti A., Traù F., *Nuove strategie delle imprese italiane. Competenze, differenziazione, crescita*, Roma, Donzelli, 2013; Arrighetti A., Ninni A., *La trasformazione silenziosa. Cambiamento strutturale e strategie di impresa nell'industria italiana*, Dipartimento di Economia dell'Università di Parma, Collana di economia industriale e applicata, Parma, 2014, eds..

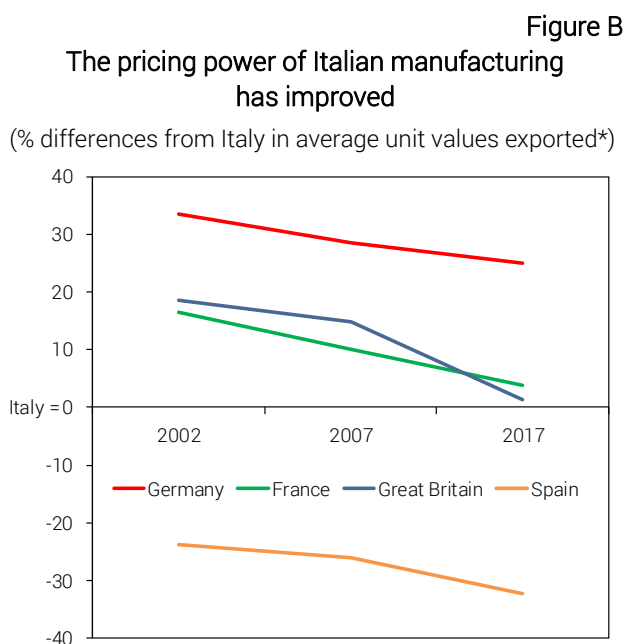
Be that as it may, in order to draw conclusions about the degree of competitiveness of any advanced industrial system, what it matters is not to measure product quality *per se* but to verify the ability of firms to translate a quality upgrading strategy into higher unit values of output, to escape from deadly cost competition of low-wage and (low environmental-friendly) countries.

This implies that, from an Italian industrial policy perspective, it becomes crucial to verify whether and to what extent the race towards better quality products has allowed country's manufacturing firms 1) to reduce their gap in pricing power vis à vis established high-end competitors, and to maintain (or even increase) the distance from low-end ones; 2) to sustain, or at least not to reduce, export value. Both issues are analyzed in the following pages.

The evolution of Italian pricing power in foreign markets... To study the relative pricing power of Italian manufacturing, the unit values of Italian goods traded internationally (TUV) have been compared over time to those of its main European competitors – Germany, France, Great Britain and Spain. Specifically, estimates are derived netting out of the observed cross-country price differentials the effects due to systematic differences in: i) the composition of product baskets exported (6 digit of the HS classification); ii) the geographical destination of exports; iii) the volume of exports (measured in tons).

Underlying the estimation exercise is the idea that once product, destination market and volume cross-country differences are taken into account, a higher/lower average TUV of one country as compared to competitors reveals a higher/lower average quality of products exported by that country.

General results of the analysis are shown in Figure B, where Italian TUVs are taken as the benchmark for price comparisons with European neighbors in 2002, 2007 and 2017. Results unambiguously reveal that, on average, Italian manufacturers have improved their pricing power relative to the other countries, both before and after the global financial crisis, implicitly confirming that quality upgrading has been a long-lasting and structural phenomenon characterizing the Italian production system on a large scale.



* Estimates controlling for export HS product code, export market and trade volume differences across countries.
 Source: CSC calculations based on CEPII and ComTrade data.

² See Centro Studi Confindustria (2019), L'industria italiana e la produttività. Cosa significa essere competitivi?, *Nota dal CSC* n.4/19; Feldstein M. (2017), Underestimating the Real Growth of GDP, Personal Income, and Productivity, *Journal of Economic Perspectives*, 31(2), pp. 145–164.

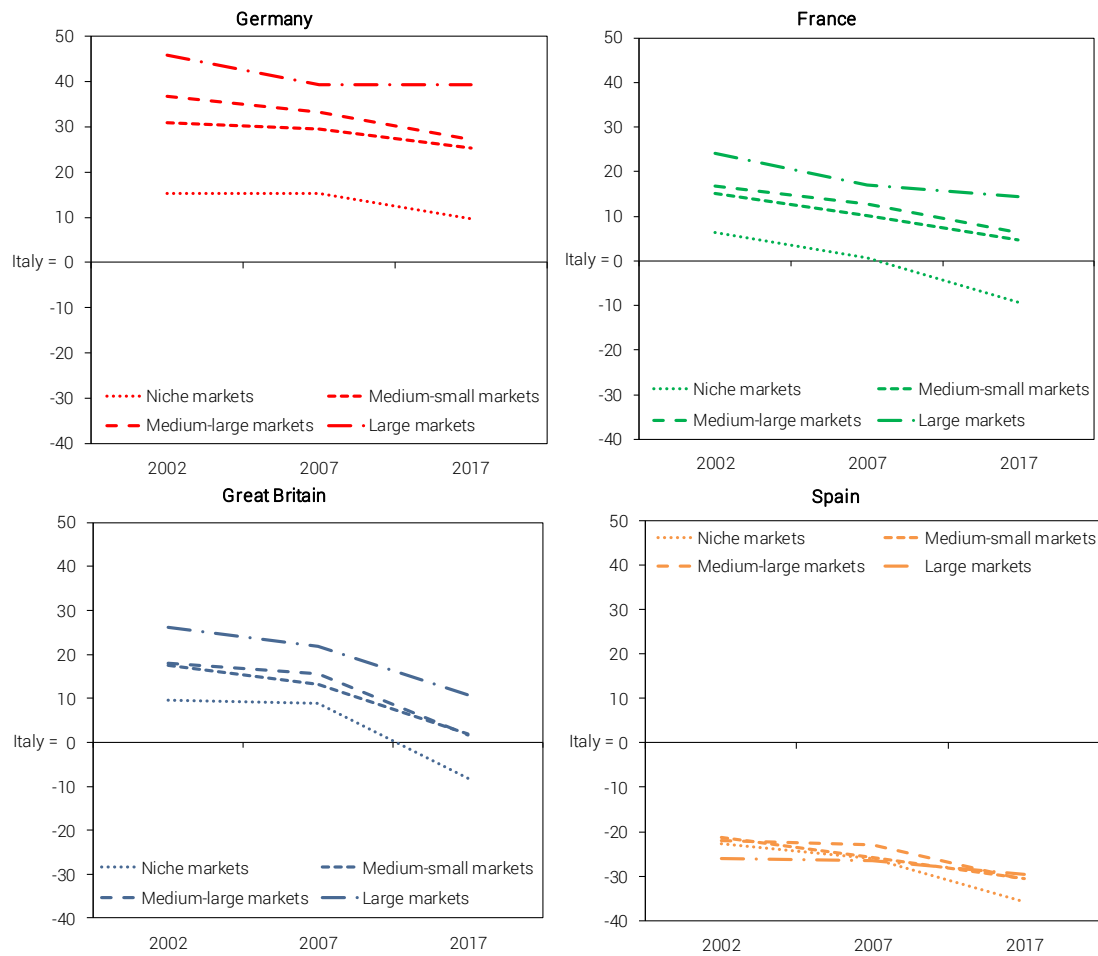
In particular, the negative differences in the average TUVs of Italy vis à vis Germany, France and UK have lowered substantially in the latest fifteen years, while the positive difference vis à vis Spain has continued to growth along the same time interval. For the first time, in 2017, the pricing power of British manufacturing exporters has been equalized by Italian companies, filling a gap of around 19 percentage points estimated in 2002; French exporters had still an advantage of 4 points on average in 2017, 13 points less than it was in 2002; distance from German prices is still equal to 25 points, an improvement of 9 points as compared to the beginning of the period; finally, the better pricing over Spanish competitors has grown to 32 points in 2017, 9 points more than it was in 2002.

... varies with market size,... The relative difference in pricing power of Italian manufacturers varies with the size of the global markets where products are sold (Figure C). The price gap from its Northern European competitors is the lowest for products which account for a small

Figure C

The smaller the global market the stronger the pricing power of Italian manufacturing

(% differences from Italy in average unit values exported, by global market size*)



* Estimates controlling for HS product code, export market and trade volume differences across countries. Market size is defined according to the quartile of distribution of global export of each product code.

Source: CSC calculations based on CEPII and ComTrade data.

share of global trade (global niches). In these market segments, the pricing power of Italian exporting firms is estimated to be even higher than that exerted, on average, by French and British producers.

The Italian relative position weakens in larger global product markets. This is especially true in comparison to German producers: in 2017 the gap in pricing power ranges from 10 percentage points for products sold in global niches to 39 points for products sold in large global markets. Only in comparison to Spanish producers there is almost no variation in the Italian pricing power with the different sizes of the product market.

To a lesser extent, also the temporal evolution of the Italian pricing power is associated with the size of the global markets for the different products. After 2007, the improvement of country's competitive position in foreign markets relative to its European neighbors has been the highest within global niches, while it has been moderate within large global markets, especially when comparing the Italian performance with that of Germany or France.

Thus, according to the analysis it can be said that Made in Italy strengths are enhanced in global markets which are relatively narrow, a result which – at least partially – might be explained by the fact that small and medium sized-firms, which are the backbone of the country's value chains at all stages, are better suited to compete in markets not dominated by economies of scale³. Unfortunately, global niches not only account for a small share of global trade but also for a small share of Italian total exports: around 3% in 2017, against 27% accounted for by medium-sized markets and the remaining 70% by large markets.

... geography, ... The Italian pricing power is found to vary significantly also depending on the geographical destination of exports (Figure D). The price gap from European competitors is relatively low when trading with other advanced economies and with Central and Eastern European countries. Such result is reassuring about the degree of international competitiveness of Italian producers, as the two geographical blocks account respectively for around 69% and 12% of country's total exports in 2017.

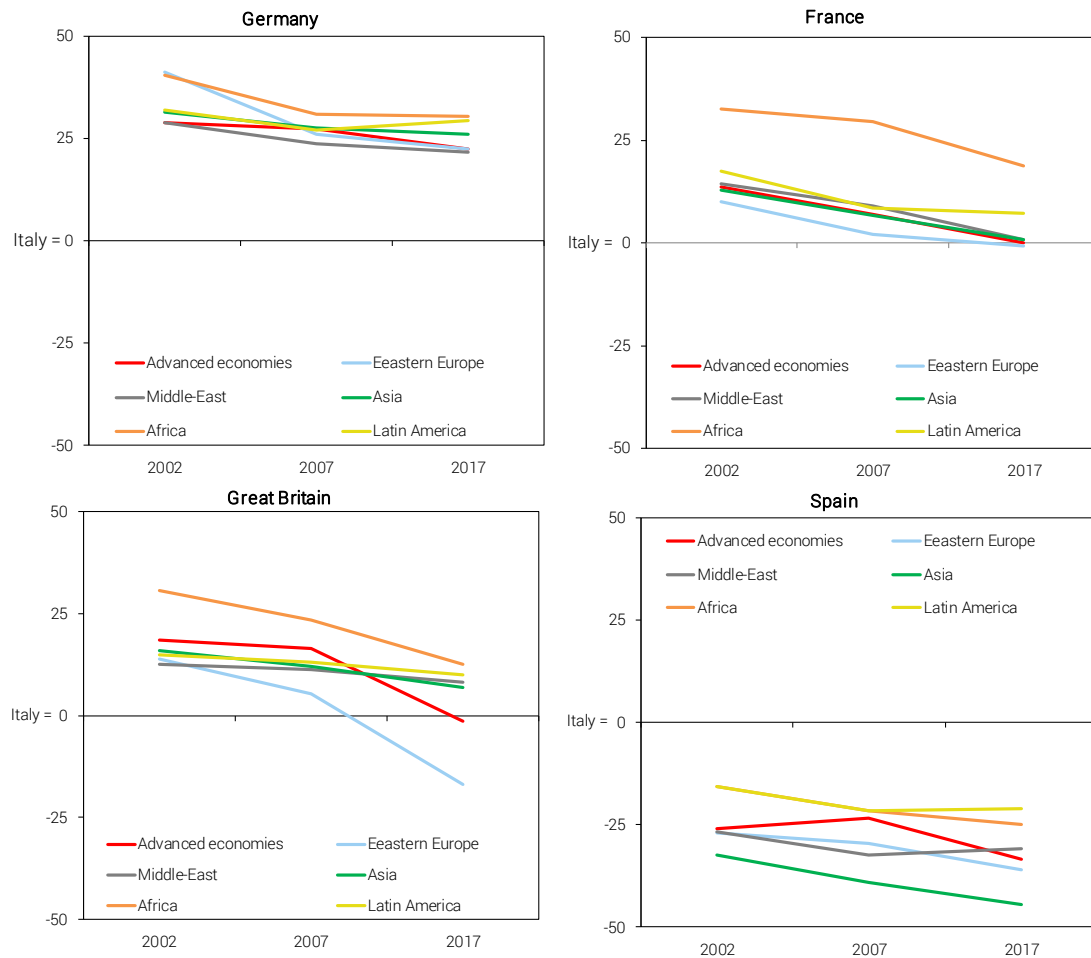
At the same time, in markets where Italian export penetration is low, namely African and Latin American countries, each accounting for around 3% of country's total exports in 2017, the price gap from European competitors is relatively high.

The relative strength of Italian exporters in Asia (excluding Japan and South Korea), which account for 6% of its total exports, varies instead with the country to which is compared: the performance is positive with reference to Spanish but also French competitors, negative with reference to German and British ones. A similar conclusion applies to the Italian performance in Middle-East (6% of total exports).

³ In Italy, according to Eurostat Structural Business Statistics, small and medium-sized firms account for 65% of manufacturing value added produced annually; such share decreases to 54% in Spain, 41% in France, and 32% in Germany.

Figure D

Higher pricing power of Italian manufacturing in advanced economies
 (% differences from Italy in average unit values exported, by destination area*)

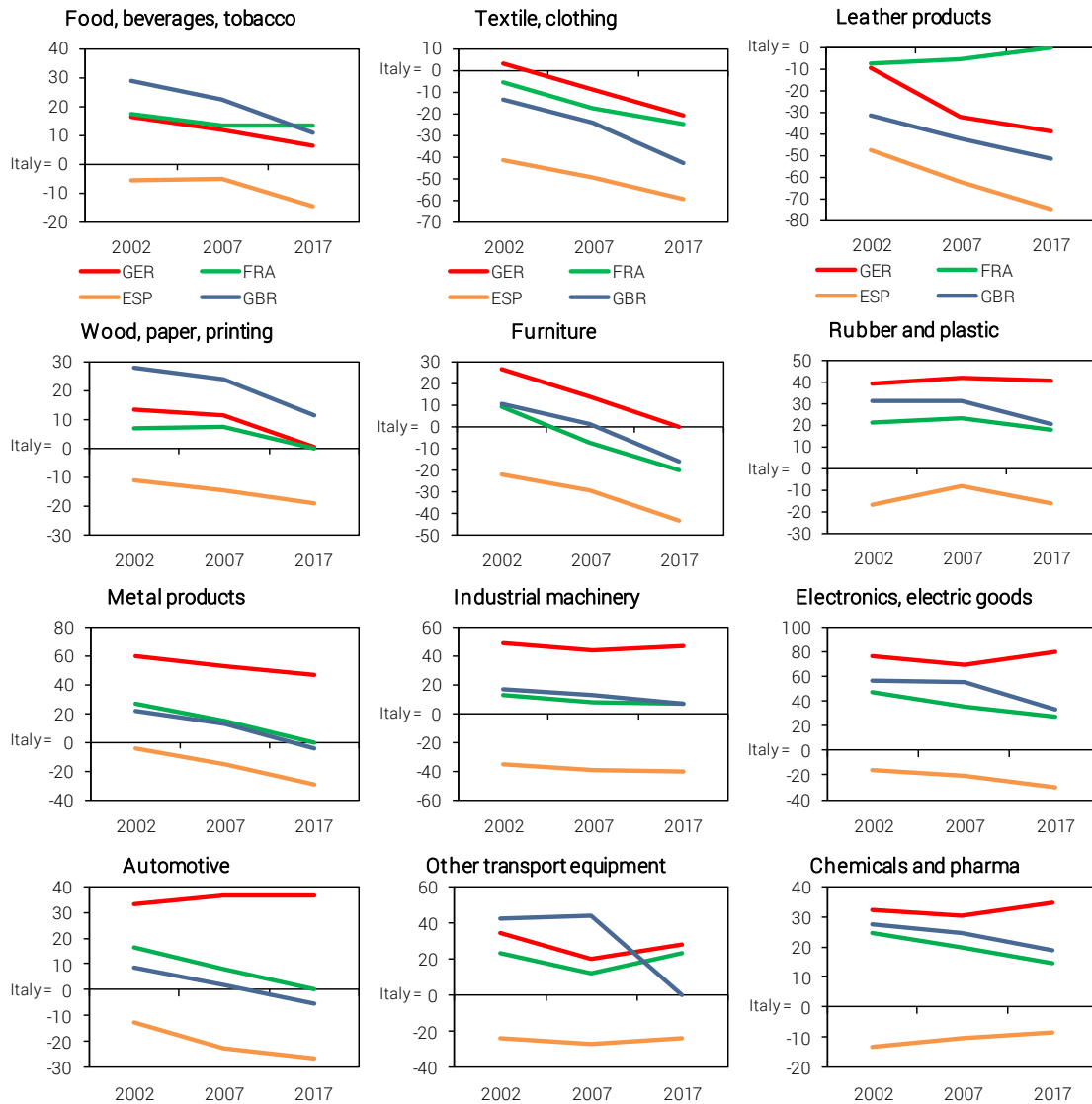


* Estimates controlling for HS product code, export market and trade volume differences across countries.
 Source: CSC calculations based on CEPII and ComTrade data.

... and industry Finally, there is significant variation in Italian pricing power when looking separately at different industry classes (Figure E). The “Made in Italy” brand is particularly valuable in those productions deeply rooted in country’s cultural and historical-artistic heritage: those related to fashion and design (textile, leather, clothing but also furniture), where Italian prices are typically higher than those of all its European competitors and where also the temporal evolution has been favorable to Italian manufacturers. Good dynamic performance of Italy is found also in the food, beverage, tobacco productions and in the wood, paper, printing ones, where the initial price gap from Northern European competitors has lowered substantially. In the remaining industries conclusions change with the country to which Italy is compared.

Figure E

Strong pricing power for "Made in Italy" traditional sectors



* Estimates controlling for HS product code, export market and trade volume differences across countries.
 Source: CSC calculations based on CEPII and ComTrade data.

There is a general convergence towards French and British performance, which in the case of metal products and automotive industries has resulted in 2017 in the equalization of their pricing power. Catching-up with Germany seems much more difficult to attain, and in some industries, especially electronics, chemicals, pharma and automotive, the temporal evolution of pricing power has even resulted in a widening of the distance between the two countries. Instead, with very few exceptions, the positive evolution of Italian prices relative to Spanish ones has been industry-wide.

Quality upgrading and Italian export value Having described the evolution of average unit values exported by Italian manufacturing relative to those of its European competitors, one question naturally arises: has the upgrading strategy put in place in the last decades come at the expenses of the overall size of country's exports? In other words, have Italian firms been able not to give up part of their business value when moving to high end market segments?

The answer is not obvious a priori because it depends on two factors: the direction and intensity of the change in demand induced by the raise of output price (price elasticity of demand channel) in the different market segments already reached by Italian companies; the ability to increase export penetration by targeting new foreign buyers with better quality products (export penetration channel).

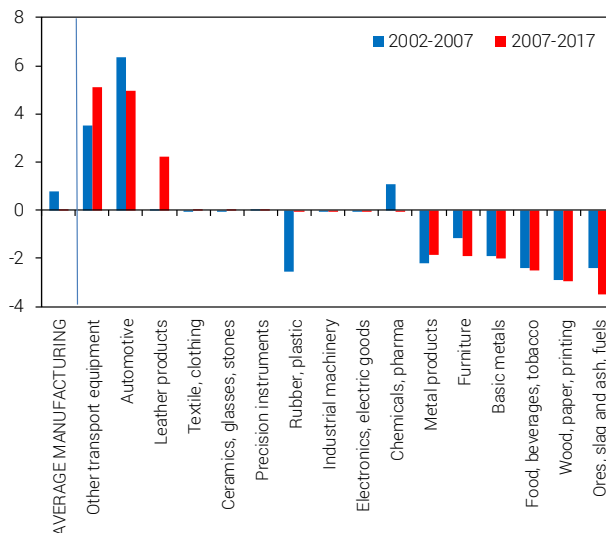
Regarding the first channel of transmission of quality adjustments to export value, the analysis of the correlations between changes in export values and changes in trade unit values suggests that, on average, the quality upgrading strategy of Italian manufacturers in foreign markets has positively contributed to the growth of business value before the global financial crisis, and to maintain business value afterwards (Figure F). In particular, for the average manufacturing product exported by Italian firms, an increase by 10 percent in trade unit values has been associated with an increase in export value by 0.8 percent between 2002 and 2007, while the association is estimated to be null between 2007 and 2017.

However, there is significant heterogeneity across industries in the sign and relevance of the estimated relation. The highest correlation is found for transport equipments (both in the automotive and in the other means of transportations sectors), before and after 2007. For instance, in the period 2007-2017 for an increase of 10 percent in trade unit values the estimated increase of total export value for transport equipment Italian products is around 5 percentage points.

For other industries, instead, the correlation is found to be negative along the entire period of analysis, suggesting that quality upgrading has, in some cases, coincided with a process of

Figure F
Italian export values go with quality upgrading in the transport equipment industries

(Percentage point changes in export value associated with a 10% increase in trade unit values*)



* Estimates controlling for export market, industry and levels of export value and of trade unit values at the beginning of the periods. Estimates are weighted using the global value of trade of each product code. Only statistically significant estimates are reported.

Source: CSC calculations based on ComTrade and CEPII data.

downsizing of industrial activity. This is the case for some mineral sectors, for firms producing food, beverages and tobacco, for firms manufacturing metal products and furniture, and those operating in the wood, paper and printing sector. For the remaining industries the effect is typically null, both before and after 2007.

Regarding the second channel of transmission of quality adjustments to export value, the analysis reveals that the upgrading strategy has gone hand in hand with the expansion of client portfolio, both before and after 2007. Over time, in fact, not only have Italian manufacturing firms reached new market segments worldwide, but also the trade unit values in these new markets have been systematically higher as compared to the unit values prevailing in established markets for the same products (Table A).

Table A

Italian exporters price higher in new market segments

New trade relations created by Italian exporters:	Value of new trade relations	New vs Established markets, Differences in unit values of export*
from 2007 to 2017	8.9 percent	14 p.p.
from 2002 to 2007	2.4 percent	29.7 p.p.

* Estimates compare unit values of the same product sold in the same year (2007 or 2017) but in different countries. Established trade relations are those existing both at the beginning and at the end of the period. New trade relations are those existing at the end of the period but not at the beginning. Estimates are weighted using the global value of trade of each product code.

Source: CSC calculations based on ComTrade and CEPII data.

For instance, comparing the average unit values of products sold in markets which were served by Italian exporters in 2017 but not in 2007 (new markets) with the average unit values of these same products sold in markets which were served both in 2017 and 2007 (established markets), a positive difference of 14 percentage points is estimated.

To conclude All in all, the evolution of Italian trade unit values is consistent with the fact that country's manufacturing system has undertaken a quality upgrading strategy which, also in the most recent years, has been more systematic than those pursued by its European competitors. Moreover, such positive evolution of the business models has not come, on average, at the expenses of overall business value.

However, there are significant differences both across markets and industries in the ability of Italian exporters to get closer to the prices charged by premium producers and to sustain or accrue export value when moving towards high end markets. These differences call for domestic policies to continue, along the lines traced out by the Italian Government in recent years, in helping the industrial efforts to strengthen the international positioning in non-traditional Made in Italy specializations, and to go beyond small-sized and traditionally served market segments.

Sustaining a deeper coordination of both technological and non-technological innovation efforts along the Italian supply chains, and helping small and medium-sized Italian enterprises to design and implement effective internationalization strategies should be at the top of the industrial policy agenda in Italy. The former set of actions would help to further improve the quality of Italian productions and to accrue the contractual bargaining power of domestic firms vis à vis foreign buyers; the latter would help to increase the number of stable exporters by reducing the entry barriers to foreign markets and by enhancing trade risk management.