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## Global Forum on Competition

# ECONOMIC ANALYSIS IN MERGER INVESTIGATIONS – Contribution from Spain

**- Session III -**

**9 December 2020**

This contribution is submitted by Spain under Session III of the Global Forum on Competition to be held on 7-10 December 2020.

More documentation related to this discussion can be found at: oe.cd/mergerinv.

Please contact Mr James Mancini if you have questions about this document [James.Mancini@oecd.org].

**JT03468242**

# *Economic Analysis in Merger Investigations*

## - Contribution from Spain –

## 1. Introduction of case C/1052/19: ÇIMSA / ACTIVOS CEMEX

1. In July 2019, Çimsa Çimento Sanayi Ve Ticaret, A.S. (Çimsa or the Acquirer) filed before the CNMC the acquisition of the white cement business of the companies Cemex España Operaciones, S.L.U., Cemex, S.A.B. de C.V. and Cemex España, S.A. (Cemex), excluding certain assets. Among the assets excluded was a silo located in Motril that Cemex uses both for white and grey cement.

2. The transaction mainly comprised the acquisition of Buñol's plant, a white cement plant located in the south east of Spain (i.e. in the Levante region) together with a number of assets needed to operate it.

3. Before the transaction, Çimsa was already present in the Spanish market as an importer through two port terminals. A main terminal is located in Alicante (also in Levante), and a second one located in Sevilla (in the South of Spain). Before the transaction, Çimsa imported its white cement to Spain from a plant located in Turkey to the port terminals in Spain (among other countries in Europe), where it was stored in silos.

4. After a first analysis and consulting various operators, the CNMC concluded that the operation was likely to have effects on competition in the market for the manufacture and sale of white cement. Furthermore, it was necessary to define the geographic area considered as the implications of the transaction varied significantly depending on the definition used.

5. In addition, in terms of market concentration, there were reasonable doubts about the risks that the operation may entail. It is a market where there was already a limited number of operators, with the acquisition resulting in greater bargaining power for the manufacturers compared to their customers, with the risk of an increase in prices as a result of the operation.

## 2. Competitive analysis carried during the second phase

6. During the second phase the CNMC carried a thorough analysis which revealed that, after the transaction, Çimsa would become the market leader in both bulk and bagged white cement, with a combined share of over 50% in the case of bulk white cement, enhancing the already high market share and leadership position that Cemex held in its area of influence. As explained in Section 2.1 below, the geographic market was defined for white cement in bulk as a 400km radius from Buñol's plant.

7. Besides a comprehensive analysis to define the relevant market, the CNMC also conducted a market test and a number of economic analyses to determine the impact of the operation in the market. Each of these analyses is explained in sections 2.1 and 2.2.

## 2.1. Relevant market's definition

### *2.1.1. Product market*

8. In order to define the product market CNMC considered the following: i) the technical characteristics of white cement; ii) its whiteness; iii) whether it was sold bulk or bagged.

9. In terms of its technical characteristics the CNMC concluded that the market could be left open for the purposes of the transaction. In this regard, although the substitutability of the different types of white cement (i.e. type I and type II) is limited to some extent and its resistance and degree of purity varies, certain types of white cement are technically suitable for all uses. In particular, regarding white cement sold in bulk, which amounts to 80% of the sales in Spain, clients require the one with a highest resistance (resistance 52.5) and both type I and type II. However, type I white cement with a 52.5 resistance is technically suitable for any use, as long as the price results acceptable for the client. This was precisely the type of cement Çimsa was importing.

10. CNMC also considered whether the level of whiteness could segment the market, as some clients mentioned that it was a key aspect of the white cement in the Spanish market, with very high standards of whiteness. However, CNMC found that it is possible to adapt of reformulate white cement in order to obtain a higher level of whiteness and that there were no significant differences in terms of manufacturing and prices. Therefore, it was not necessary to segment the market in this sense.

11. Finally, CNMC considered that it was appropriate to segment the market distinguishing how the white cement is sold, in bulk or bagged (normally in 25kg bags). Among others, rationale for this segmentation was that i) final prices differ significantly as production costs are higher for bagged white cement while transportation costs are higher for bulk white cement; ii) clients requiring high volumes of white cement need it in bulk as it is the only way of assuring its supply; iii) final prices are higher for bagged than bulk white cement; and iv) distances travelled and its storage also varies from bagged to bulk white cement.

### *2.1.2. Geographic market*

12. In order to define the geographic market, the CNMC analysed bulk and bagged white cement separately. The reason was the different prices of both types of cement, as well as the differences in transportation: bagged cement faces less restrictions for its transport and warehousing, hence it can be transported to longer distances through intermediate suppliers before reaching the final consumer.

13. White cement is a product with higher prices and value in comparison to grey cement, therefore transport costs are less determinant and therefore it is often delivered to longer distances. With the purpose of reflecting these differences, and following the methodological approach of the European Commission cases[1] that have previously analysed the geographic dimension of the grey and white cement markets, it was deemed appropriate to define the areas of influence or isochrones around the production plants or import terminals and determine their overlapping areas.

14. CNMC used the data provided by all companies operating in the market to calculate the distance from the production plant (or the import terminal, in Çimsa's case) to the delivery point, as one client may use different delivery points or pick up the cement

[1] M.7009 Holcim/Cemex; M.7054 Cemex/Holcim Assets; M.7252 Holcim/Lafarge and M.7744 Heidelberg Cement / Italcementi.

themselves to bring it back to different addresses. Intermediary warehouses were not taken into account for this part of the analysis, as the objective was to calculate the total distance from the operator to the client. Over 8,600 observations were used in the economic analysis, and, for the year 2018, they were mapped using a Geographic Information Systems (GIS) application to calculate de distances.

15. In the case of bulk cement, the range, median and mean distances were calculated for three percentages of the total sales: 70%, 80% and 90%. While the range for 90% of sales might seem larger, most of the delivery points barely surpass the 400 kilometres mark.

**Table 1. Range, median and mean of bulk white cement's supply distance in Spain**

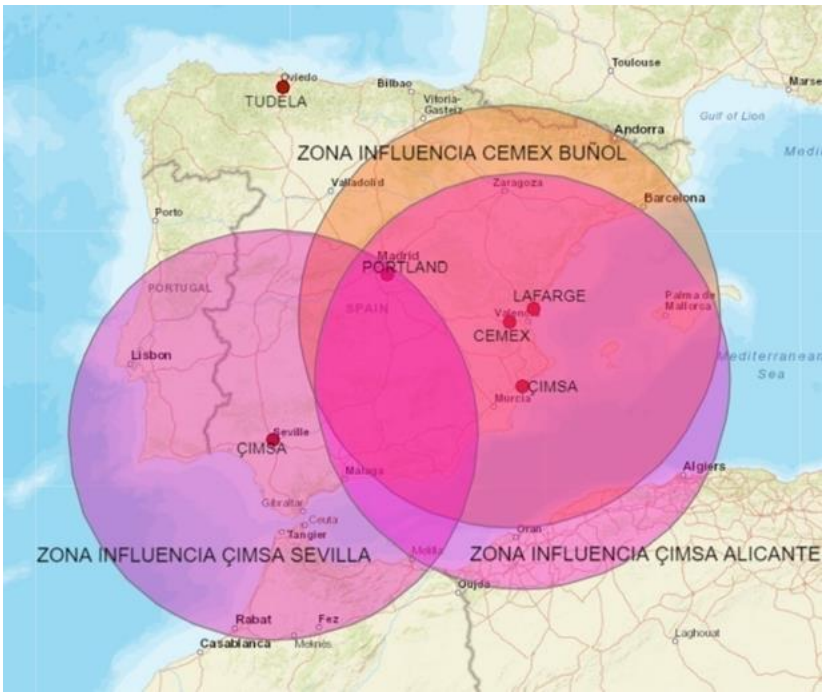
(sales in volume, 2018)

| | Distance 70% of sales | Distance 80% of sales | Distance 90% of sales |
|---|---|---|---|
| Range | 121,6 - 364,1 km | 136,4 – 399,6 km | 225,4 – 485 km |
| Median | 290,3 | 327,1 | 360,5 |
| Mean | 265,9 | 289 | 378,9 |

Source: Own elaboration based on data provided by the companies

16. Therefore, the geographic market for bulk white cement was defined as 400km isochrones, in particular the isochrone from Cemex's plant in Buñol (in orange below) and the overlapping areas from Çimsa's import terminals in Alicante and Seville (in pink).

**Figure 1.**




Source: Own elaboration

17. As for the bagged white cement, its higher price and lower transport costs allow for higher distances. Furthermore, in contrast to the bulk cement market, where the direct clients of producer or importers are the final clients, a higher proportion of the direct clients

in the bagged white cement market intermediate clients, who buy bagged cement from the producer or importer to resell it to smaller companies or professionals for small reforms or construction works, using their own distribution network. This added distance was not considered in the range, median and mean analysis, as the producers and importer do not know the identity or location of these final clients.

18. For all the above, although the distances calculated (see table below) are very similar to those in the bulk cement analysis CNMC left the geographic market definition for bagged white cement open.

**Table 2. Range, median and mean of bagged white cement's supply distance in Spain**

(sales in volume, 2018)

| | Distance 70% of sales | Distance 80% of sales | Distance 90% of sales |
|---|---|---|---|
| Range | 190,5 - 347,2 | 248,5 – 382,5 | 300,9 – 485,5 |
| Median | 290,8 | 346,7 | 404,5 |
| Mean | 278,6 | 338,6 | 400,8 |

Source: Own elaboration based on data provided by the companies

19. As the relevance of the intermediate clients in the bagged white cement market was significant and the CNMC did not identify competition problems for this segment of the market, the geographic definition for bagged white cement was left open, although both the 400km isochrone and the national market were analysed.

## 2.2. Main competition problems detected

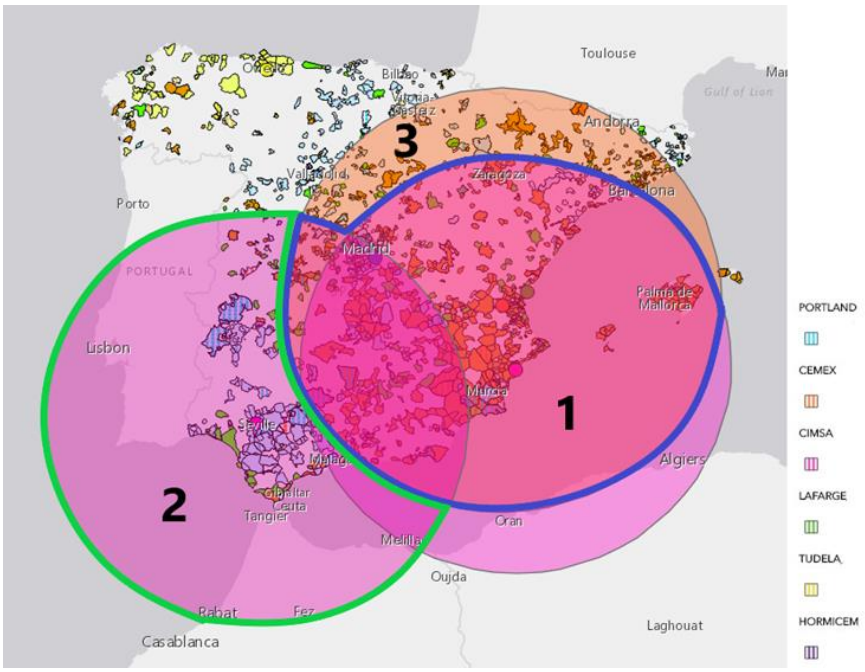
20. As in any other merger, the definition of the relevant markets constitutes a preliminary stage. After defining the relevant markets, the CNMC conducted a prospective analysis of the transaction and verified certain concerns raised by third parties (both clients and competitors) in order to ascertain whether the transaction, if approved, would create additional obstacles to competition in the white cement market, which was already concentrated. The analysis focuses on the bulk white cement, due to its importance in the Spanish market and as it was the market were the competition problems were identified. It concentrates the majority of sales and bigger clients, who are more sensitive to transportation costs, supply shortages, distance to their suppliers and changes within the technical characteristics of the white cement (including its whiteness).

### *2.2.1. High market shares*

21. Market shares were calculated based on the previously defined geographic markets.

22. First, for the **bulk white cement** market, market shares were calculated in the 400km isochrones from Buñol (Cemex) and the overlapping area with Cimsa's import terminal, which would be area 1 in the map below. Area 2 is the isochrone from Seville (Çimsa) that does not overlap, while area 3 is the isochrone from Cemex that does not overlap.

## Figure 2.




Source: Own elaboration

23. The combined market share (calculated using the volume of white cement sold in 2018) would, as shown in the table below, reach up to over 50% in both areas. The merger would then result in a reinforcement of the position that Cemex already had in its influence area, while the second biggest company would have a market share of around 30 percentage points lower.

## Table 3. Market shares post-merger. Bulk white cement 2018. 400km isochrones

| Producer | Buñol isochrone | Overlapping area |
|---|---|---|
| CEMEX | [40-50]% | [40-50% |
| ÇIMSA | [10-20]% | [10-20]% |
| **ÇIMSA+CEMEX** | **[50-60]%** | **[50-60]%** |
| LAFARGE | [10-20]% | [10-20]% |
| PORTLAND | [20-30]% | [20-30]% |
| TUDELA VEGUIN | [10-20]% | [0-10]% |
| Total | **100%** | **100,00%** |

Source: Own elaboration based on data provided by the companies

24. In the post-merger scenario, Çimsa would no longer import white cement, therefore a competitor would no longer be active in the market, as Çimsa would just take Cemex's place. Çimsa would also stop importing cement from Turkey. That would mean that the market structure would change both in the overlapping area (1), where Cemex`s market share would be transferred to Çimsa and increase its total share, in Cemex's area, where the supplier would change from Cemex to Çimsa, and in area (2), where Çimsa's terminals would disappear altogether and clients would have to be supplied from another terminal or plant, or switch suppliers.

25. The **Herfindahl-Hirschman Index (HHI)** was also calculated, pre- and post-merger, following the Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings[2]. The results showed that, in the Buñol isochrone, the pre-merger HHI was 2,851.75, and rose to 4,017.52 post-merger, with a delta of 1,163.58, which confirmed that the merger would increase concentration in an already highly concentrated market[3].

*26.* As for the area of Çimsa's isochrones that do not overlap with Cemex, the CNMC deemed necessary to analyse it, as Çimsa's intention after the transaction was to concentrate all its activity in Buñol's plant, therefore abandoning its import activity from the port terminals located in Seville and Alicante. This is why these areas were also considered affected markets for the purposes of the transaction. However, it was not clear whether Çimsa would be able to maintain supply from Buñol, under the same commercial conditions, especially for those clients that are based further away given the geographic market definition. Up to 16 delivery points (61.5% of those supplied from Seville), that amounted to [70-80]% of the total volume supplied from that terminal were located outside of Buñol's isochrone, and all of them had other competitors as their closest alternative supplier. Even if Çimsa tried to maintain supply for all their clients, as transport costs increase with distance, unless the company sacrifices part of their margin so as to not pass them on to their clients, given the oligopolistic structure of the market and the reduced countervailing buyer power caused by the reduction in alternatives of supply, it is unlikely that the company could keep market shares unaltered. Therefore, the market share in that area after the merger remains unclear.

27. Market shares in the **bagged cement market** were slightly different. They were also calculated in the 400km isochrones from Buñol (Cemex) and the overlapping area with Cimsa's import terminal. The combined market share (calculated using volume of white cement sold in 2018) would, as shown in the table below, reach up to over 30% in both areas. The merger would then result in a reinforcement of the position that Cemex already had in its influence area, and although the combined market share would be lower than the one in the bulk cement segment, the second biggest company would have a market share of around 20 percentage points lower.

**Table 4. Market shares post-merger. Bagged white cement 2018. 400km isochrones**

| Producer | Buñol isochrone | Overlapping area |
|---|---|---|
| CEMEX | [40-50]% | [20-30]% |
| ÇIMSA | [0-10]% | [0-10]% |
| **ÇIMSA+CEMEX** | **[40-50]%** | **[30-40]%** |
| LAFARGE | [20-30]% | [30-40]% |
| PORTLAND | [20-30]% | [30-40]% |
| TUDELA VEGUIN | [0-10]% | [0-10]% |
| Total | **100,00%** | **100,00%** |

Source: Own elaboration based on data provided by the companies.

[2] Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings, from paragraph 17.

[3] The Guidelines (from paragraph 19) indicate that it is not likely that horizontal competition problems will arise when the merger results in an HHI between 1,000 and 2,000 and a delta below 250, or, under special circumstances, an HHI over 2,000 and a delta below 150.

28. The Herfindahl-Hirschman Index (HHI) was also calculated, pre- and post-merger. The results showed that, in the Buñol isochrone, the pre-merger HHI was 3,148.99, and would rise to 3,698.1 post-merger, with a delta of 549,11, which confirmed that the merger would increase concentration in an already highly concentrated market.

29. As the geographical market definition was left open, a national dimension was also considered to analyse market shares in the bagged white cement market. As the results were similar to the ones obtained from the isochrone analysis, the conclusions reached do not vary.

**Table 5. National market shares post-merger. Bagged white cement**

| | CEMEX | ÇIMSA | **CEMEX+ ÇIMSA** | PORTLAND | LAFARGE | TUDELA |
|---|---|---|---|---|---|---|
| 2016 | [30-40]% | [0-10]% | **[40-50]%** | [20-30]% | [10-20]% | [10-20]% |
| 2017 | [30-40]% | [0-10]% | **[40-50]%** | [20-30]% | [20-30]% | [0-10]% |
| 2018 | [30-40]% | [0-10]% | **[30-40]%** | [20-30]% | [20-30]% | [0-10]% |

Source: Own elaboration based on data provided by the companies

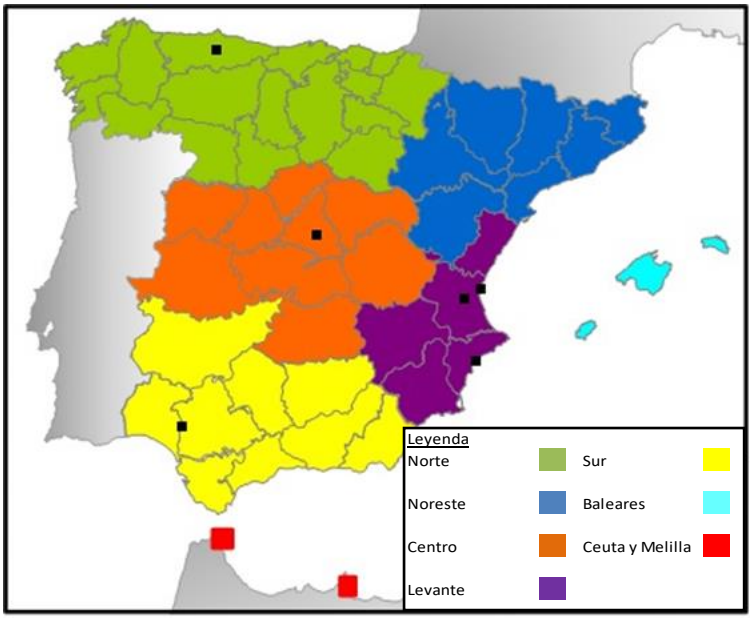
30. In this case, the pre-merger HHI was 2,609.16, and would rise to 2,993.32 post-merger, with a delta of 384,16. While the concentration levels are lower at a national level, the index results are still very high and show a significant increase in the concentration level in the market.

31. On the other hand, following a recent European precedent regarding grey cement[4] that considered that although the relevant catchment areas were sufficiently homogeneous and could be distinguished from neighbouring areas, there were variations in competitive conditions within these areas that needed to be taken into account in the competitive assessment. The CNMC established 7 different regional areas based on the location of the plants/import terminals and their influence areas:

- North area (green): there is only one plant located here (Tudela Veguín in Asturias).
- North east area (dark blue): there are no factories located in this area.
- Central area (Orange): Portland's plant is based in Madrid, although almost all companies have clients located in this area.
- Levante area (purple): Cemex's plant in Buñol, Lafarge's plant nearby in Sagunto and one of Çimsa's import terminals in Alicante. Many delivery points are concentrated in this area.
- Balearic Islands (light blue): there are no factories and Cemex has near 100% of the market share.
- South area (yellow): Çimsa operates an import terminal in Seville.
- Ceuta and Melilla (red): there are no factories and all clients buy only bagged white cement.

[4] See CASE M.7878 – HEIDELBERGCEMENT/SCHWENK/CEMEX HUNGARY/CEMEX CROATIA.

Figure 3.




32. The market shares of the merged entity varied depending on the areas considered. For example, while it would consolidate its dominance in the Levante area, with market shares reaching [70-80]% for both bagged and bulk cement, in the South area it would reach up to [80-90]% for bulk and [50-60]% for bagged. In the Northeast area, its market share for bulk cement would be [70-80]%. The central and North areas would remain dominated by Portland and Tudela, with market shares of around [50-60]% y [80-90]%, respectively. It should be noted that the Levante area is the region with highest sales of white cement in Spain, followed by the central and South areas. The market shares were calculated for three years (2016 to 2018), and were very stable over time.

33. While the Guidelines[5], as well as the European case law, admit that "*smaller competitors may act as a sufficient constraining influence if, for example, they have the ability and incentive to increase their supplies*" even if market shares are extraordinarily high (above 50%), that would not apply to this merger, as will be seen in the next sections. In this regard, a number of factors suggested that, after the transaction, the remaining operators, instead of increasing their production, would probably adapt to the new level of prices: i) the number of alternatives would be reduced, in some areas extremely; ii) despite the excess capacity available, both market shares and prices had been very stable in the different areas analysed for all the entities operating in the market; iii) Cemex was the main operator in Spain, and particularly in the markets affected and had, in general, the highest prices in most of the geographic areas, excluding Andalucía in the south, with no significant reactions from the rest of competitors. .

### *2.2.2. Limited possibilities for customers of switching supplier*

34. CNMC considered a number of factors to concluded that possibilities of switching suppliers after the transaction were limited. First, the geographic definition of the market

[5] Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings, from paragraph 17.

showed that the viable number of alternative suppliers was already limited. Second, the white cement market (both for bagged and bulk) was already stable. Third, the market test confirmed that, despite the absence of exclusivity clauses, clients did not switch suppliers on a regular basis. Furthermore, changing suppliers entails switching costs for clients, as they have to do a number of tests to homologate the white cement of the new supplier. However, the CNMC considered that these switching costs were not high enough to impede clients from changing suppliers.

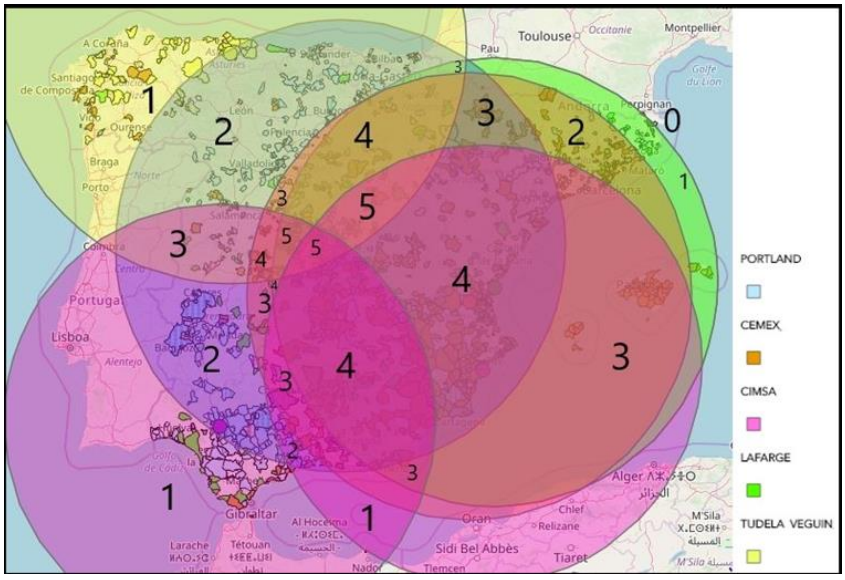
35. Regarding the alternatives within the geographic market defined, CNCM carried an analysis to calculate the number of alternatives that each delivery point had before the merger, and how their situation would change once the merger was executed.

36. The number of alternatives of supply differs depending on whether we focus on the bagged or bulk white cement market, due to the differences in the geographic market. In the case of bagged white cement, as the geographical relevant market could be defined at a national level, the number of alternatives would decrease equally for all clients, as it would go from 5[6] to 4 with the disappearance of Cemex.

37. As for the bulk white cement market, CNMC used the data provided by all companies operating in the market, calculated the distance from each delivery point to all the production plants (or import terminals, in Çimsa's case). The observations were mapped using the GIS application to calculate de distances. A production plant or import terminal was considered a viable alternative when it was located at 400km or less from a delivery point, except in the case of Çimsa, when if a delivery point was located at less than 400km from both import terminals, they were considered as one.

38. The geographical distribution of the bulk white cement delivery points and the number of alternatives of supply pre-merger are depicted in the map below:

**Figure 4. Alternatives of supply pre-merger**

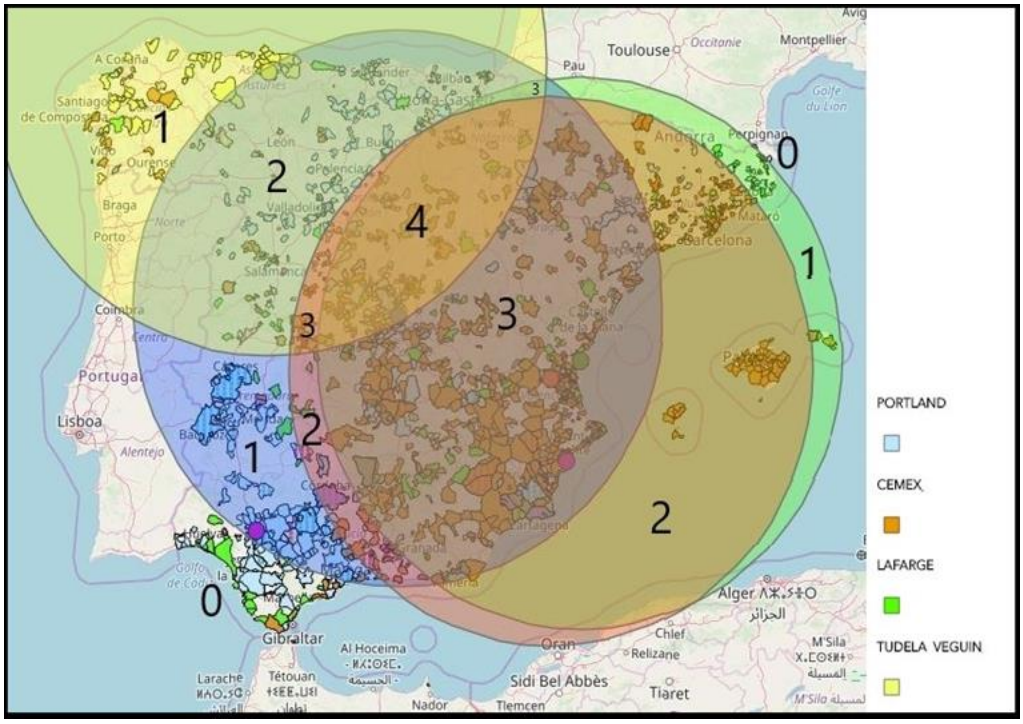



Source: Own elaboration based on data provided by the companies.

[6] Both of Çimsa's terminals are considered as a single alternative.

39. The alternatives of supply post-merger, once Çimsa stops importing white cement from Turkey, would be:

**Figure 5. Alternatives of supply post-merger. Çimsa stops importing**




Source: Own elaboration based on data provided by the companies

40. As observed in the maps, the merger would cause a reduction in the number of alternatives of supply, not only in the overlapping area between Buñol's isochrone and Çimsa's import terminals, but also where there are no overlaps in the isochrone, due to Çimsa's decision to stop importing white cement.

41. The change in the number of alternatives of supply for all bulk cement clients (calculated for each of their delivery points) is shown in the table below:

**Table 6. Change in the number of alternatives of supply (2018)**

| Number of alternatives | Delivery points | % Delivery points | Volume (t) | % Volume |
|---|---|---|---|---|
| 1 to 0 | 9 | 1.9% | […] | [0-10]% |
| 2 to 1 | 54 | 11.7% | […] | [10-20]% |
| 3 to 2 | 50 | 10.8% | […] | [0-10]% |
| 4 to 3 | 162 | 35.1% | […] | [40-50]% |
| 5 to 4 | 52 | 11.3% | […] | [10-20]% |
| No change | 135 | 29.2% | […] | [10-20]% |
| Total | 462 | 100.0% | […] | 100.0% |

Source: Own elaboration based on data provided by the companies

42. 59.5% of the delivery points ([60-70]% of the total volume of bulk white cement) would lose alternatives and have 3 or less alternatives of supply after the merger.

43. It is especially relevant the number of delivery points that would lose alternatives to have either 1 or 0 after the merger, as they represented around [10-20]% of all bulk white cement supplied in Spain (in volume, 2018). The table below shows the provinces where all the delivery points would see their alternatives of supply reduced from 2 to 1 or 1 to 0:

**Table 7. Most affected provinces by variation in alternatives (2018)**

| Province of the client (delivery point) | Change alternatives | Volume | Volume of sales in the province | % volume sales affected |
|---|---|---|---|---|
| CADIZ | 1 to 0 | [...] | [...] | [90-100]% |
| HUELVA | 1 to 0 | [...] | [...] | [90-100]% |
| MALAGA | 1 to 0 | [...] | [...] | [0-10]% |
| SEVILLA | 1 to 0 | [...] | [...] | [0-10]% |
| ALMERIA | 2 to 1 | [...] | [...] | [40-50]% |
| BADAJOZ | 2 to 1 | [...] | [...] | [90-100]% |
| CACERES | 2 to 1 | [...] | [...] | [50-60]% |
| CORDOBA | 2 to 1 | [...] | [...] | [70-80]% |
| GRANADA | 2 to 1 | [...] | [...] | [10-20]% |
| MALAGA | 2 to 1 | [...] | [...] | [40-50]% |
| SEVILLA | 2 to 1 | [...] | [...] | [90-100]% |

Source: Own elaboration based on data provided by the companies

44. The most affected provinces were all located in the southern area of Spain (with the exception of Cáceres, assigned to the central area), as they would lose Çimsa's import terminals as alternatives, and were too far from Buñol.

45. These results highlight the limited possibilities that clients have to switch suppliers in the white These results highlight the limited possibilities that clients have to switch suppliers in the white bulk cement market, and which the merger would aggravate.

### *2.2.3. Competitors are unlikely to increase supply if prices increase*

46. All the production plants from the integrated companies (Cemex, Lafarge, Portland and Tudela Veguín) have an excess capacity than ranges from 20 to almost 70%. In this regard the CNMC verified that there was sufficient capacity in the market and that Buñol's plant was not pivotal. However, a number of factors showed there were not incentives to use this excess. On this matter, the analysis on market shares by areas reflected that this excess has not been used to increase competition. In this regard the oligopolistic market structure and the market shares of the different companies have been stable over the last years. This excess could be enough to counteract possible price increases or the reduction in alternatives and supply resulting from the merger. However, due to the stability in shares, excess capacity, prices and margins, as will be analysed in this section, CNMC concluded that companies were not likely to expand their production and sales in the relevant markets enough to compensate the risk of an increase in prices.

47. Furthermore, as seen on the previous section, the limitation of the influence areas of the production plants to 400km limits the reaction capacity of the competitors if they faced an increase of prices by the merged entity. As Tudela is mainly active in the North and central areas, it would not be able to exert enough competitive pressure. Lafarge and Portland, on the other hand, could be considered as alternative suppliers in Buñol's isochrone.

48. For the price and margin analysis, the companies operating in the white cement market in Spain provided data on prices and costs from 2016 to 2018. For each order from their clients, they provided the final price including discounts for volume or other reasons. As this would distort the analysis, it was decided to carry out a weighted average price analysis by autonomous regions, the previously defined areas and producer. The formula, which is used for bagged and bulk cement separately as price differences are significant, is as follows:

$$Weighted\ average\ price_i = \frac{\sum(Final\ discounted\ price_i * Order\ volume)}{\sum Order\ volume_i},$$

with $i$ = autonomous region or area, producer (if used)

49. The weighted average price reflects better the real situation of the market since, in opposition to the simple average price, it takes into account differences in the size of the orders, correcting the excessive weight that smaller but more expensive orders would have, as it would raise the final result of the average price, in spite of representing only a small fraction of white cement's total sales. In fact, an analysis of the price and volume of the orders showed that smaller orders have higher average prices.

50. A dispersion analysis was also carried out. The results showed low price dispersion in all areas except for the North and Balearic Islands.

51. As for the margin analysis, they were calculated using the final prices mentioned above, as well as production, transport and warehousing costs provided by the companies. No indirect costs (such as administrative costs) were included, as the intention was to estimate the gross margin by order, and not the aggregated margin, to analyse the variation across the country and in different areas and isochrones, depending on the competitive conditions present in each of them. The same formula was used, substituting prices by margins.

52. Production costs shown below (which include transport to the import terminals in Spain in Çimsa's case) are higher for bagged cement (especially Tudela Veguín and Çimsa), while for bulk cement Cemex and Portland have the lowest costs:

### Table 8. Average production costs (€/t)

| Producer | Bulk (€/t) | Bagged (€/t) | Big Bag (€/t) |
|---|---|---|---|
| CEMEX | [70-80] | [70-80] | [70-80] |
| CIMSA | [70-80] | [80-90] | |
| LAFARGE | [70-80] | [70-80] | |
| PORTLAND | [60-70] | [70-80] | |
| TUDELA VEGUIN | [80-90] | [110-120] | |

53. Transport costs from the plant or import terminal to the delivery points in 2018 are shown below. It is observed that, as distance increases, transport costs rise significantly. The only exceptions are Tudela Veguín and Cemex (not shown here) in the 300-400km range for bulk cement, although that could be explained by differences in the volume of the orders. In Cemex's case, they sell 4 times more bulk white cement in that range than in the 200-300km one, while Tudela sells twice, which means they might be benefitting from economies of scale that would allow them to reduce transport costs. Overall, transport costs for bulk cement are higher than for bagged cement from 100km onwards, although it should

be noted that the majority of bagged cement clients pick up their orders directly at the factories or intermediate warehouses.

### Table 9. Average transport costs (€/t)

| Distance from plant/import terminal | Average cost (bulk) | Average cost (bagged) |
|---|---|---|
| 0-100km | [0-10] | [0-10] |
| 100-200km | [0-10] | [0-10] |
| 200-300km | [10-20] | [0-10] |
| 300-400km | [10-20] | [0-10] |
| +400km | [20-30] | [0-10] |

54. Margins in the bulk white cement market were around [20-30]% in 2018 in the Levante, Balearic islands and central areas (as defined in section 2.2.1), and reached up to [30-40]% in the North East area. All of them are areas affected by the influence area of Buñol's plant. The differences in prices and margins are also important when looking at smaller areas (such as autonomous communities or provinces), and cannot be fully explained by distances. The companies choose different strategies depending on the regions their clients are located in, as each producer charges different margins based on the distance to the delivery point, the relative distance from the client to other alternatives of supply, and the relative importance of the client and the volume of the order (bigger orders and clients are charged less, as they apply discounts for volume and have an incentive to keep the client). However, the competitors present in these areas have not taken advantage of the high margins, which have been fairly stable over time, to reduce their prices and increase their sales and market shares:

### Table 10. Average weighted prices and margins by area. Bulk white cement

| Area | 2016 | | 2017 | | 2018 | |
|---|---|---|---|---|---|---|
| | Price (€/t) | Margin (%) | Price (€/t) | Margin (%) | Price (€/t) | Margin (%) |
| Balearic Islands | [160-170] | [30-40] | [160-170] | [20-30] | [150-160] | [20-30] |
| Center | [110-120] | [30-40] | [110-120] | [30-40] | [110-120] | [20-30] |
| Levante | [110-120] | [10-20] | [110-120] | [30-40] | [110-120] | [20-30] |
| North East | [130-140] | [30-40] | [130-140] | [30-40] | [130-140] | [30-40] |
| North | [130-140] | [30-40] | [110-120] | [20-30] | [120-130] | [20-30] |
| South | [100-110] | [0-10] | [100-110] | [0-10] | [100-110] | [0-10] |

Source: Own elaboration based on data provided by the companies

55. As for the bagged white cement market, the results are similar, with higher average margins than in the bulk cement market in the Balearic Islands, Levante and North East areas ([30-40%]), and similar margins in the Center area ([20-30]%). Prices and margins are also very stable:

**Table 11. Average weighted prices and margins by area. Bagged white cement**

| Area | 2016 | | 2017 | | 2018 | |
|---|---|---|---|---|---|---|
| | Price (€/t) | Margin (%) | Price (€/t) | Margin (%) | Price (€/t) | Margin (%) |
| Balearic Islands | [180-190] | [30-40] | [180-190] | [30-40] | [180-190] | [30-40] |
| Center | [110-120] | [20-30] | [110-120] | [20-30] | [110-120] | [20-30] |
| Ceuta and Melilla | [160-170] | [30-40] | [160-170] | [30-40] | [160-170] | [30-40] |
| Levante | [130-140] | [30-40] | [130-140] | [30-40] | [130-140] | [30-40] |
| North East | [150-160] | [40-50] | [150-160] | [30-40] | [150-160] | [30-40] |
| North | [140-150] | [20-30] | [130-140] | [10-20] | [130-140] | [10-20] |
| South | [120-130] | [10-20] | [120-130] | [10-20] | [120-130] | [10-20] |

Source: Own elaboration based on data provided by the companies

#### *2.2.4. Other*

56. The analyses performed regarding prices, margins, as well as the alternatives in the market after the transaction were essential to determine the effects of the transaction in the market. However, the CNMC also analysed other aspects of the transaction that were also relevant, but were not part of the economic analyses carried, and therefore are briefly mentioned below.

57. The CNMC's investigation concluded that the transaction would eliminate an important competitive force. In this regard, some clients revealed that, within the last two decades, only the entry of Çimsa was able to distort the Spanish market with a decrease in the price of white cement. For a market that is characterised for being stable and oligopolistic, this is especially significant.

58. Despite the opinion of the parties, CNMC also concluded that the transaction would reduce the countervailing buyer power, which as the market test revealed was already limited, in particular in the areas of Levante and the south of Spain.

59. Furthermore, the CNMC concluded that barriers to entry were not a significant impediment in the market, but that in any case, it could not be deemed likely for potential competitors to enter the market in the near future. In this regard, since the entry of Çimsa in the market two decades ago, there haven't been new entries. Besides, the particularities of the Spanish market did not suggest that the situation was likely to change. Furthermore, the CNMC disregard the possibility of considering a Portuguese manufacturer as a potential competitor, as it confirmed that they had no intention in entering the Spanish market.

60. Last, CNMC also analysed if coordinated effects derived from the transaction were likely to occur. In this regard, the definition of the geographic relevant market for bulk white cement, as a distance of 400km radius from Buñol's plant, revealed that the number of alternatives after the merger would be very limited, amounting to a higher possibility of having coordinated effects in the market after the transaction.

61. Furthermore, the structure of the market, stable, with long commercial relationships between suppliers and clients, and the fact that a number of manufacturers had already been sanctioned for collusive agreements in the market of grey cement, led CNMC to conclude that the transaction was likely to facilitate coordination between the operators of white cement in the market.

### 2.3. Remedies

62. The Acquirer, after receiving the statement of objections, submitted a first proposal of remedies to address the problems identified. These initial remedies were subject to

improvements and updates before the final proposal was presented on 27 July 2020. CNMC submitted this proposal to a new market test, that included the main customers of the parties, as well as competitors. CNMC also carried an additional comprehensive economic analysis, which is explained in detail in section 2.3.1, based on data from white cement customers in Spain, in order to evaluate the sufficiency and suitability of the remedies.

63. The proposal comprised a **commitment to divest the Alicante silo and its associated goodwill in favour of CEMENTOS MOLINS**. With this commitment ÇIMSA would transfer on a long-term basis the right to use the Alicante silo, as well as its associated assets, to Molins. The rationale behind this transfer was that ÇIMSA was granted a concession from the Alicante's port to use the terminal, but did not own it. Therefore, ÇIMSA agreed to transfer the right of use of the terminal until its expiration. The transfer also includes the assets of the terminal that ÇIMSA currently uses in the white cement business, as well as the goodwill associated with the terminal, which includes the list of customers to which ÇIMSA has supplied white cement from this terminal for the last three years.

64. As explained in detail below, the results of the market test and the economic analysis showed that the abovementioned remedies addressed the competition problems identified in the area of Buñol but were not sufficient to solve the competition problems identified in the south of Spain.

### *2.3.1. Economic analysis*

65. An additional economic analysis was carried out to analyse the effect the remedies would have in the market shares and the available supply alternatives for the clients.

#### *Post-remedies market shares*

66. The market shares were calculated for two possible scenarios after the merger: one where no remedies are applied, and another with the abovementioned remedies. In the scenario with remedies, for the market shares calculation, the CNMC considered that Çimsa would transfer Molins all their clients from the Alicante import terminal. Molins would also supply white cement to Propamsa, a company part of Molins group that demands significant volumes of white cement. Çimsa would then keep all of Cemex's clients, as well as those they supplied from Seville's terminal that are located within Buñol's isochrone.

**Table 12. Market shares post-merger. Bulk white cement 2018. Buñol isochrone**

| Producer | No remedies | With remedies |
|---|---|---|
| ÇIMSA | [50-60]% | [40-50]% |
| LAFARGE | [10-20]% | [10-20]% |
| MOLINS | 0.00% | [10-20]% |
| PORTLAND | [20-30]% | [10-20]% |
| TUDELA VEGUIN | [10-20]% | [10-20]% |
| **Total** | 100.00% | 100.00% |
| HH Index | 4,017.52 | 2,685.83 |

Source: Own elaboration based on data provided by the companies

67. As can be observed on the table above, while Çimsa would remain as the leader after the merger, the market share is lower when remedies are taken into account, and market concentration is, although still high, significantly lower and similar to the HH Index in the pre-merger scenario.

68. The same hypotheses were used for the bagged white cement market:

**Table 13. Market shares post-merger. Bagged white cement 2018. Buñol isochrone**

| Producer | No remedies | With Remedies |
|---|---|---|
| ÇIMSA | [40-50]% | [40-50]% |
| LAFARGE | [20-30]% | [20-30]% |
| MOLINS | 0.00% | [0-10]% |
| PORTLAND | [20-30]% | [20-30]% |
| TUDELA VEGUIN | [0-10]% | [0-10]% |
| **Total** | **100.00%** | **100.00%** |
| HH Index | 3,698.1 | 3,306.62 |

Source: Own elaboration based on data provided by the companies

69. Çimsa would also remain as the leader of the bagged white cement market after the merger, but the market share is not significantly lower when remedies are taken into account, and market concentration remains higher than in the pre-merger scenario (3,148.99). The remedies are not as affective in this case, compared to the bulk white cement market, as Propamsa's importance in that market is higher and therefore has a bigger effect on the market shares.

70. However, it should also be noted that this market could have a national dimension, and in that case the concentration levels with remedies would be similar to those in the pre-merger scenario (HH index of 2,609.19):

**Table 14. National market shares post-merger. Bagged white cement 2018**

| Producer | No remedies | With Remedies |
|---|---|---|
| ÇIMSA | [30-40]% | [30-40]% |
| LAFARGE | [20-30]% | [20-30]% |
| MOLINS | 0.00% | [0-10]% |
| PORTLAND | [20-30]% | [20-30]% |
| TUDELA VEGUIN | [0-10]% | [0-10] % |
| **Total** | **100.00%** | **100.00%** |
| HH Index | 2,991.49 | 2,765.59 |

Source: Own elaboration based on data provided by the companies

*Post-remedies alternatives of supply*

71. The alternatives of supply were again analysed to take into account the two possible post-merger scenarios. The focus was only on bulk white cement, as the bagged white cement market can be considered as national, and therefore the entry of Molins would avoid variations in the number of suppliers.

### Table 15. Post-merger alternatives of supply in a 400km radius (all bulk clients, 2018)

| | NO REMEDIES | | | | WITH REMEDIES | | | |
|---|---|---|---|---|---|---|---|---|
| **Number of alternatives (400 km)** | **Delivery points** | **% delivery points** | **Volume (t)** | **% Volume** | **Delivery points** | **% delivery points** | **Volume (t)** | **% Volume** |
| 1 to 0 | 9 | 1.9% | […] | [0-10]% | 9 | 1.9% | […] | [0-10]% |
| 2 to 1 | 38 | 8.0% | […] | [0-10]% | 34 | 7.2% | […] | [0-10]% |
| 3 to 2 | 52 | 11.0% | […] | [0-10]% | 3 | 0.6% | […] | [0-10]% |
| 4 to 3 | 164 | 34.6% | […] | [40-50]% | 1 | 0.2% | […] | [0-10]% |
| 5 to 4 | 55 | 11.6% | […] | [10-20]% | 3 | 0.6% | […] | [0-10]% |
| No change | 156 | 32.9% | […] | [20-30]% | 424 | 89.5% | […] | [90-100]% |
| Total | **474** | **100.0%** | […] | **100.0%** | **474** | **100.0%** | […] | **100.0%** |

Source: Own elaboration based on data provided by the companies

72. Taking into account all clients of bulk white cement in Spain in 2018, Molins' entry in the market would cause that 89.5% of the delivery points, which represent over [90-100]% of the total volume, would maintain the same number of alternatives of supply in the remedies scenario, as opposed to the 32.9% that would lose alternatives of supply if no remedies were applied.

73. The alternatives of supply analysis was also carried out for a) Buñol's clients (that Çimsa would keep supplying), b) Alicante's clients (that would be transferred from Çimsa to Molins) and c) Seville's clients (not involved in the remedies proposed by Çimsa).

### Table 16 Post-merger alternatives of supply in a 400km radius (Buñol's bulk clients, 2018)

| | NO REMEDIES (t) | | | | WITH REMEDIES (t) | | | |
|---|---|---|---|---|---|---|---|---|
| Number of alternatives (400 km) | Delivery points | % delivery points | Volume (t) | % Volume | Delivery points | % delivery points | Volume (t) | % Volume |
| 1 to 0 | 2 | 1.10% | […] | [0-10]% | 2 | 1.10% | […] | [0-10]% |
| 2 to 1 | 6 | 3.30% | […] | [0-10]% | 5 | 2.80% | […] | [0-10]% |
| 3 to 2 | 35 | 19.40% | […] | [10-20]% | 1 | 0.60% | […] | [0-10]% |
| 4 to 3 | 74 | 41.10% | […] | [50-60]% | - | - | […] | - |
| 5 to 4 | 12 | 6.70% | […] | [0-10]% | - | - | […] | - |
| No change | 51 | 28.30% | […] | [20-30]% | 172 | 95.60% | […] | [90-100]% |
| Total | 180 | 100.00% | […] | 100.00% | 180 | 100.00% | […] | 100.00% |

Source: Own elaboration based on data provided by the companies

74. Taking into account all bulk white cement clients of Buñol's plant it was found that, with the remedies proposed by Çimsa, over 90% of the delivery points would not lose alternatives, as opposed to the around 28% that would in the no remedies scenario. Out of the 180 delivery points taken into account, only 7, located in Cádiz, Sevilla and Huelva (in the south of Spain), would remain with 1 or less alternatives (in the majority of the cases, the alternative would be Portland's plant). Four of them order over 1,000t of bulk white cement a year.

### Table 17. Post-merger alternatives of supply in a 400km radius (Alicante's bulk clients, 2018)

| | NO REMEDIES | | | | WITH REMEDIES | | | |
|---|---|---|---|---|---|---|---|---|
| Number of alternatives (400 km) | Delivery points | % delivery points | Volume (t) | % Volume | Delivery points | % delivery points | Volume (t) | % Volume |
| 3 to 2 | 2 | 5.7% | […] | [0-10]% | - | - | - | - |
| 4 to 3 | 29 | 82.9% | […] | [80-90]% | - | - | - | - |
| 5 to 4 | 2 | 5.7% | […] | [0-10]% | - | - | - | - |
| No change | 2 | 5.7% | […] | [0-10]% | **35** | 100.0% | […] | 100.0% |
| Total | **35** | **100.0%** | […] | **100.0%** | **35** | **100.0%** | […] | **100.0%** |

Source: Own elaboration based on data provided by the companies

75. As can be seen in the table above, the remedies proposed by Çimsa would solve the problem of the reduction in the number of alternatives of supply that was initially detected for all the clients supplied by Alicante's import terminal.

### Table 18. Post-merger alternatives of supply in a 400km radius (Seville's bulk clients, 2018)

| | NO REMEDIES | | | | WITH REMEDIES | | | |
|---|---|---|---|---|---|---|---|---|
| Number of alternatives (400 km) | Delivery points | % delivery points | Volume (t) | % Volume | Delivery points | % delivery points | Volume (t) | % Volume |
| 1 to 0 | 2 | 7.7% | […] | [0-10]% | 2 | 7.7% | […] | [0-10]% |
| 2 to 1 | 13 | 50.0% | […] | [70-80]% | 13 | 50.0% | […] | [70-80]% |
| 3 to 2 | 7 | 26.9% | […] | [20-30]% | 1 | 3.8% | […] | [0-10]% |
| 4 to 3 | 2 | 7.7% | […] | [0-10]% | - | - | […] | - |
| 5 to 4 | 1 | 3.8% | […] | [0-10]% | 1 | 3.8% | […] | [0-10]% |
| No change | 1 | 3.8% | […] | [0-10]% | 9 | 34.6% | […] | [20-30]% |
| Total | **26** | **100.0%** | […] | **100.0%** | **26** | **100.0%** | […] | **100.0%** |

Source: Own elaboration based on data provided by the companies

76. In this case, the proposed remedies would not have the same effect, as the majority of the delivery points are located outside of Alicante's isochrone. Therefore, 65% of the delivery points, that amount to [70-80]% of the total bulk white cement supplied by Çimsa from Seville's import terminal, would still lose alternatives after the transaction when remedies are taken into account.

77. Out of the 26 delivery points, 10 of them ([20-30]% of the total volume supplied) were located less than 400km away from Buñol's plant, and therefore Çimsa would be able to supply them after the merger. Eight of these points would also not lose any alternatives of supply when remedies are considered. However, it should be noted that, although these 10 delivery points would not lose alternatives, these clients would face higher transport costs and possibly higher prices after the transaction, as they were located closer to Seville and Motril than Buñol.

78. The rest of the clients were located in the South area, outside of Buñol's isochrone, and all but one of them would only have either one or zero alternatives of supply within a 400km radius after the merger. Although Çimsa stated that it would continue to supply these clients from Buñol, it did not seem a viable alternative, as the higher transport costs would most likely be passed on to the prices, due to the reduced number of alternatives of supply and, therefore, low competitive pressure, especially for the smaller customers. In all cases, the closest alternative would be Portland's plant.

79. Therefore, it was concluded that the remedies proposal submitted by Çimsa on 4 August 2020, which included the divestment of the Alicante silo and the goodwill associated with the terminal, solved the competition problems detected in relation to the excessive concentration in the bulk white cement market in Buñol's isochrone, as well as the reduction in the number of alternatives of supply for most of Buñol's clients, and all of Alicante's. However, these remedies did not solve the problems detected for the clients supplied by Çimsa from Seville's import terminal.

80. As a result of this, the 24th of September Çimsa submitted an additional remedy which consists of the **use of Cemex's Motril silo to supply the customers of the parties in the south of Spain**. This commitment implies that ÇIMSA will, until the end of its concession in 2022, supply from Motril all those ÇIMSA customers that it previously supplied from its silo in Seville (Motril is located in the South of Spain around 300km away from Seville and covering as well the south of Spain within its 400km radius), as well as all the Cemex customers who had been supplied from Motril prior to this operation.

81. With this remedy, CNMC assures that the alternatives for customers of white cement in the south of Spain will remain the same over the next two years, providing Molins with a sufficient period of time to enter the market and customers with more time to find additional alternatives of supply, if needed.

82. Last, CNMC will monitor the compliance of the remedies. For this purpose, Çimsa shall inform CNMC, through reports every 15 days, on the compliance and implementation of remedies.

### *2.3.2. Final remarks*

83. The CNMC conducted a thorough investigation in this second phase of the merger with the objective of determining whether, if approved, the transaction would harm effective competition in the white cement market.

84. To this end, and a fundamental step in this particular case, the CNMC defined the relevant markets and concluded that bulk and bagged white cement were separate markets, and that for bulk white cement the geographic market was defined by a 400km radios from the plant (in this case, Buñol's plant). Regarding bagged white cement the geographic relevant market was left open.

85. As for the competitive analysis, the intensive work carried by the CNMC over several analyses reflects the complexity of the transaction, in a market that was already concentrated and stable. With the final package of remedies submitted, the CNMC believes that the negative impact the transaction would have caused in the Spanish white cement market disappears. Furthermore, the remedies are proportionate and their implementation can easily be monitored.

86. Despite the approval of the transaction with remedies, it is worth mentioning that, due to the situation and characteristics of the white cement market in Spain, the CNMC's Council has requested the Competition Directorate to monitor the prices and commercial conditions in this market, on a periodic and proactive basis.