WORLD PRODUCTION AND CONSUMPTION OF CERAMIC TILES

ACIMAC / MECS - Machinery Economic Studies
The global figures for production, consumption and international trade of ceramic tiles have been increasing rapidly at a global level for a number of years, seemingly unaffected by the economic crisis and production trends in the various markets. However, examining the data in greater detail we find that the situation is more complex than might appear at first sight. This is the reason we decided to produce this study, which analyses the different trends amongst producers, consumers, exporters and importers of ceramic tiles. First we group the countries by geographical regions and then look in greater detail at the specific situations in each of the main countries operating in the international ceramic tile market. We will find for example that most tiles are produced for sale in nearby markets, while less than one tile in every ten is shipped to an area not in the immediate vicinity of the place of manufacture. We will see that China is not only the largest producer and consumer of ceramic tiles but is also the biggest exporter to more than 70 countries worldwide, although Italy and Spain retain their leading positions in a significant number of markets.

We will discover that the regions with higher rates of urban population growth also display higher growth rates in tile consumption. We will see that Asia is the region in the world that consumes the largest volumes of tiles, although the highest growth rates are in African countries; that Italy is maintaining its market shares better than Turkey; and that the United States has undergone a profound change in the structure and origin of its imports over the course of a decade.

This study sets out the data in a simple and clear fashion with the aim of providing the reader with a document that can be consulted immediately and simply as a work tool. It also provides an overview of the entire international sector and the outlook for the future.

Paolo Gambuli
Director ACIMAC
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Analysing tile production from 2008 to 2017 (Table 1.1), we find an enormous increase in production on the part of certain Asian countries (primarily China) and at the same time a contraction in the output of EU countries. Whereas in 2008 Asia produced three times the volume of tiles manufactured in the European Union, today this ratio is 7:1 (Chart 1.1.B).

In Asia, tile production rose at an average annual rate of 6.9%, reaching more than 9.4 billion sq.m in 2017 (up 0.9% on the previous year), accounting for 69.6% of total world production. During the same period, the European Union suffered an average annual contraction in output of 0.6%, down from 1.4 to 1.3 billion sq.m (10.1% of the world total). The biggest fall was in 2009, when production dropped by almost 400 million sq.m on the previous year. In addition to Asia, other continents have seen a considerably increase in output since 2008. In 2017, Latin America produced 1,074 million sq.m, and marked up an average annual growth rate of 1.5% over the period 2008-2017, even if in 2017 registered the third decrease in a row, -1.1% with respect to 2016. European countries outside the EU - above all Turkey and Russia - produced 615 million sq.m in 2017 (an average annual growth rate of 3.9% since 2008), while Africa produced 696 million sq.m (average annual growth of 9.5%), and the NAFTA region, headed by Mexico, produced 362 million sq.m (average annual growth of 2.7%).

### TABLE 1.1 - WORLD TILE PRODUCTION BY GEOGRAPHICAL AREA - Values in millions of sq.m

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>EU</strong></td>
<td>1,441</td>
<td>1,088</td>
<td>1,139</td>
<td>1,188</td>
<td>1,179</td>
<td>1,185</td>
<td>1,192</td>
<td>1,218</td>
<td>1,304</td>
<td>1,362</td>
<td>10.1%</td>
<td>-4.4%</td>
<td>-0.6%</td>
</tr>
<tr>
<td><strong>Other Europe</strong></td>
<td>434</td>
<td>387</td>
<td>447</td>
<td>480</td>
<td>524</td>
<td>606</td>
<td>570</td>
<td>567</td>
<td>573</td>
<td>615</td>
<td>4.5%</td>
<td>7.3%</td>
<td>3.9%</td>
</tr>
<tr>
<td><strong>NAFTA</strong></td>
<td>284</td>
<td>259</td>
<td>272</td>
<td>290</td>
<td>302</td>
<td>306</td>
<td>308</td>
<td>330</td>
<td>358</td>
<td>362</td>
<td>2.7%</td>
<td>1.1%</td>
<td>2.7%</td>
</tr>
<tr>
<td><strong>South America</strong></td>
<td>938</td>
<td>932</td>
<td>1,001</td>
<td>1,098</td>
<td>1,138</td>
<td>1,158</td>
<td>1,194</td>
<td>1,193</td>
<td>1,086</td>
<td>1,074</td>
<td>7.9%</td>
<td>-1.1%</td>
<td>1.5%</td>
</tr>
<tr>
<td><strong>Asia</strong></td>
<td>5,198</td>
<td>5,583</td>
<td>6,395</td>
<td>7,228</td>
<td>7,714</td>
<td>8,327</td>
<td>8,717</td>
<td>8,649</td>
<td>9,358</td>
<td>9,438</td>
<td>69.6%</td>
<td>0%</td>
<td>6.9%</td>
</tr>
<tr>
<td><strong>Africa</strong></td>
<td>308</td>
<td>350</td>
<td>377</td>
<td>345</td>
<td>374</td>
<td>393</td>
<td>442</td>
<td>498</td>
<td>571</td>
<td>696</td>
<td>5.1%</td>
<td>21.9%</td>
<td>9.5%</td>
</tr>
<tr>
<td><strong>Oceania</strong></td>
<td>8</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>0.0%</td>
<td>0.0%</td>
<td>-5.1%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>8,611</td>
<td>8,606</td>
<td>9,637</td>
<td>10,634</td>
<td>11,236</td>
<td>11,980</td>
<td>12,428</td>
<td>12,460</td>
<td>13,255</td>
<td>13,552</td>
<td>100.0%</td>
<td>2.2%</td>
<td>5.2%</td>
</tr>
</tbody>
</table>
CHART 1.1.A - WORLD TILE PRODUCTION BY GEOGRAPHICAL AREA IN 2017 - % shares

CHART 1.1.B - WORLD TILE PRODUCTION BY GEOGRAPHICAL AREA (2008 - 2017) - % shares

CHART 1.1.C - WORLD TILE PRODUCTION BY AREAS - VAR. IN SHORT AND MEDIUM TERM - Var. %

The size of the circles is proportional to the volumes of tiles produced in 2017.
1.4.A - % EXPORTS OUTSIDE INTEGRATED AREA IN 2017 ON TOTAL EXPORTS - % shares

<table>
<thead>
<tr>
<th>Region</th>
<th>Export inside integrated areas</th>
<th>Export outside integrated areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU</td>
<td>46.9%</td>
<td>53.1%</td>
</tr>
<tr>
<td>Other Europe</td>
<td>72.7%</td>
<td>27.3%</td>
</tr>
<tr>
<td>NAFTA</td>
<td>25.0%</td>
<td>75.0%</td>
</tr>
<tr>
<td>South America</td>
<td>20.3%</td>
<td>79.7%</td>
</tr>
<tr>
<td>Asia</td>
<td>32.2%</td>
<td>67.8%</td>
</tr>
<tr>
<td>Africa</td>
<td>43.2%</td>
<td>56.8%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>38.9%</td>
<td>61.1%</td>
</tr>
</tbody>
</table>

1.4.B - % EXPORTS OUTSIDE INTEGRATED AREA IN 2017 ON TOTAL PRODUCTION - % shares

<table>
<thead>
<tr>
<th>Region</th>
<th>% shares</th>
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</thead>
<tbody>
<tr>
<td>EU</td>
<td>32.8%</td>
</tr>
<tr>
<td>Other Europe</td>
<td>20.9%</td>
</tr>
<tr>
<td>NAFTA</td>
<td>3.9%</td>
</tr>
<tr>
<td>South America</td>
<td>2.6%</td>
</tr>
<tr>
<td>Asia</td>
<td>5.0%</td>
</tr>
<tr>
<td>Africa</td>
<td>2.8%</td>
</tr>
<tr>
<td>Oceania</td>
<td>0.0%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>8.1%</td>
</tr>
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</table>
Brazli is the world’s third largest ceramic tile producer and consumer and seventh largest exporter. Exports changed from 79.8 million sq.m in 2008 to 90.4 million sq.m in 2017, corresponding to an average annual increase of 1.4%.

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</thead>
<tbody>
<tr>
<td>Production</td>
<td>713</td>
<td>715</td>
<td>754</td>
<td>844</td>
<td>866</td>
<td>871</td>
<td>903</td>
<td>899</td>
<td>792</td>
<td>790</td>
<td>-0.3%</td>
<td>-11.9%</td>
<td>-0.4%</td>
</tr>
<tr>
<td>Export</td>
<td>81</td>
<td>61</td>
<td>57</td>
<td>60</td>
<td>59</td>
<td>63</td>
<td>69</td>
<td>77</td>
<td>94</td>
<td>90</td>
<td>-4.3%</td>
<td>22.1%</td>
<td>11.6%</td>
</tr>
<tr>
<td>Import</td>
<td>11</td>
<td>12</td>
<td>25</td>
<td>41</td>
<td>41</td>
<td>50</td>
<td>38</td>
<td>19</td>
<td>7</td>
<td>7</td>
<td>0.0%</td>
<td>-63.2%</td>
<td>-50.0%</td>
</tr>
<tr>
<td>Consumption</td>
<td>605</td>
<td>644</td>
<td>700</td>
<td>775</td>
<td>803</td>
<td>837</td>
<td>853</td>
<td>816</td>
<td>706</td>
<td>708</td>
<td>0.3%</td>
<td>-13.5%</td>
<td>-4.3%</td>
</tr>
</tbody>
</table>

Brazil

Export and Import data on right-hand axis

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</tr>
</thead>
<tbody>
<tr>
<td>Asia</td>
<td>1.2</td>
<td>0.9</td>
<td>0.9</td>
<td>0.4</td>
<td>0.4</td>
<td>0.3</td>
<td>0.3</td>
<td>0.4</td>
<td>0.6</td>
<td>0.6</td>
<td>0.7%</td>
<td>-6.9%</td>
</tr>
<tr>
<td>Africa</td>
<td>6.1</td>
<td>5.1</td>
<td>2.4</td>
<td>3.7</td>
<td>3.5</td>
<td>3.2</td>
<td>3.7</td>
<td>2.9</td>
<td>4.7</td>
<td>3.4</td>
<td>3.8%</td>
<td>-28.0%</td>
</tr>
<tr>
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<td>12.1</td>
<td>9.3</td>
<td>9.9</td>
<td>8.1</td>
<td>7.9</td>
<td>7.8</td>
<td>9.3</td>
<td>11.2</td>
<td>12.3</td>
<td>13.6%</td>
<td>10.4%</td>
</tr>
<tr>
<td>South America</td>
<td>50.4</td>
<td>38.3</td>
<td>35.2</td>
<td>44.3</td>
<td>45.5</td>
<td>50.3</td>
<td>55.2</td>
<td>62.1</td>
<td>74.2</td>
<td>71.5</td>
<td>79.1%</td>
<td>-3.6%</td>
</tr>
<tr>
<td>EU</td>
<td>4.0</td>
<td>2.7</td>
<td>1.6</td>
<td>1.7</td>
<td>1.3</td>
<td>1.1</td>
<td>2.0</td>
<td>1.9</td>
<td>3.3</td>
<td>2.1</td>
<td>2.3%</td>
<td>-35.4%</td>
</tr>
<tr>
<td>Other Europe</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Oceania</td>
<td>0.2</td>
<td>0.2</td>
<td>0.1</td>
<td>0.0</td>
<td>0.1</td>
<td>0.1</td>
<td>0.3</td>
<td>0.3</td>
<td>0.4</td>
<td>0.4%</td>
<td>7.0%</td>
<td>7.2%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>79.8</td>
<td>59.2</td>
<td>49.4</td>
<td>60.1</td>
<td>58.8</td>
<td>62.9</td>
<td>69.2</td>
<td>76.8</td>
<td>94.3</td>
<td>90.4</td>
<td>100.0%</td>
<td>-4.2%</td>
</tr>
</tbody>
</table>
South America
79.1%