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Ceramics Industry – Tiles and Sanitaryware

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The ceramics industry services the building and construction materials industry and is characterised by a large number of unorganised players.

The organized sector that accounts for 53-55% of the industry grew at a compounded average annual rate of 7.7% from FY13 to FY17. The unorganised sector mainly operates from the ceramic cluster at Morbi in Gujarat.

Indian exports of ceramic tiles and sanitaryware from Morbi for FY17 is estimated to be worth ~\$914 million. For FY18, it is expected to be around ~\$1,500 million. USA, Saudi Arabia and Mexico are the major export destinations for ceramic products from India.

The domestic demand for ceramics has risen in the recent past owing to the initiatives under the Swachh Bharat Abhiyan (SBA) and the Pradhan Mantri Awas Yojna (PMAY) along with higher replacement demand.

Since the inception of the SBA in 2014, there has been 53% rise in the number of individual household toilets built in the rural parts country till date. As of June 2018, 51 lakh households have been sanctioned under the PMAY-Urban.

These policies have had a direct effect on the demand for the building and construction materials industry and consequently, there has been an uptick in the consumption of ceramic tiles and sanitaryware. The market for both these ceramic products is growing on the back of upcoming real estate projects in affordable housing, especially in the Tier II cities. Affordable housing with a potential of over 6-8 billion sq. ft. would be a key driver for the ceramic players, both across formal and informal sector.

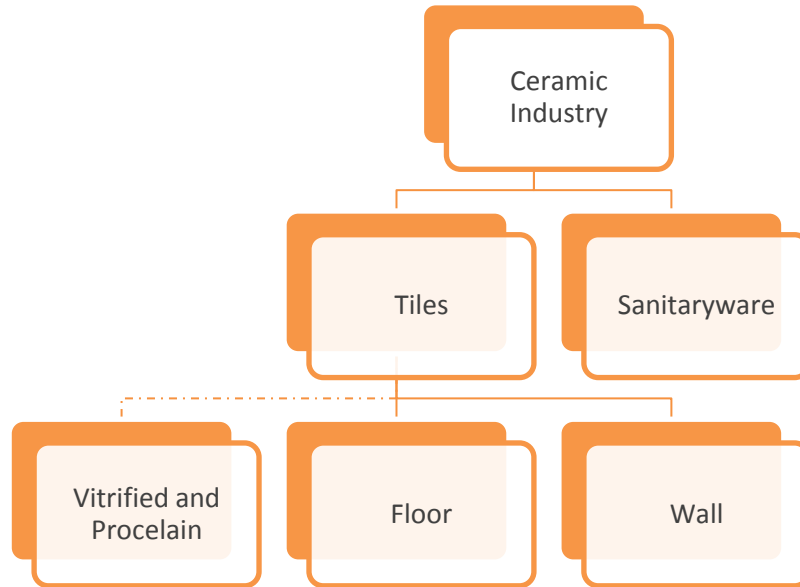
There has been a dip in construction activities post implementation of RERA in FY17. Launch of new projects were deferred as the players sought to gauge the impact RERA could have on the on-going and upcoming projects, before making new announcements. However RERA has led to completion of the stalled construction projects which has revived the demand for building and construction materials to some extent.

Industry Segments

The major market for ceramics tiles and sanitaryware are housing and commercial real estate. Organised players in the industry have product

ranges in both tiles and sanitaryware, while unorganized players generally cater to only one product segment.

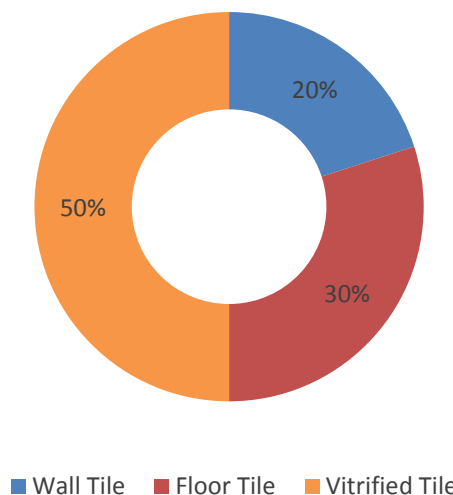
Chart 1: Major Product Segments of Ceramic Industry



Source: CARE Ratings Research

- Ceramic tiles can be polished or unpolished. Polished tiles are available in different price ranges. The tile segment of the ceramic industry can be further classified into wall and floor as well as vitrified and porcelain tiles. The segment wise market share of these tiles is given in Chart 2. The per capita consumption of tiles in India is ~0.60 square meters, compared with China’s 2.6 square meters, Brazil’s 3.4 square meters and Europe’s 5-6 square meters. The sales by organised players accounts for about 55% of the market.

Chart 2: Segment- wise market share in Ceramic Tiles

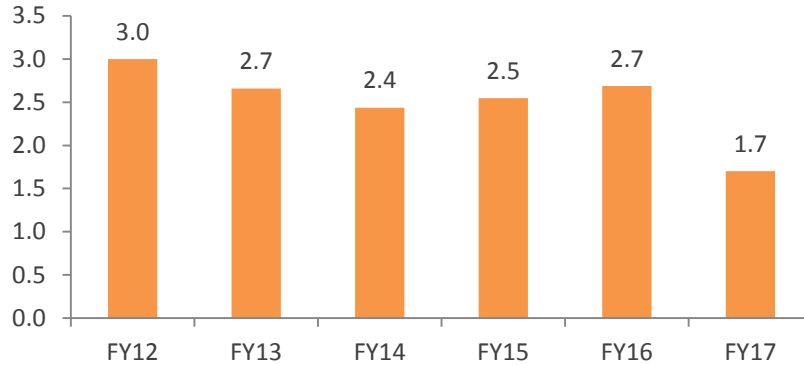


Source: Indian Council of Ceramic Tiles and Sanitaryware (ICCTAS)

- The size of the ceramic tiles industry, in terms of production is about 2.3 million tonnes, as of FY18. The domestic consumption of ceramic tiles in India had been rising between FY14 and FY16. In FY17, there was a sharp decline in the

consumption to 1.7 million tonnes, from 2.69 million tonnes in FY16. This decline can be attributed to the low replacement demand and lower construction activity in residential segment of the real estate sector.

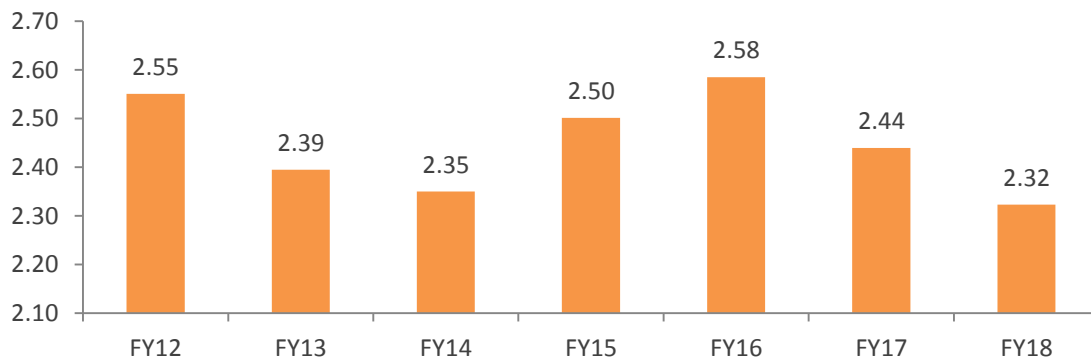
Chart 3: Domestic Consumption of ceramic tiles in India (Million tonnes)



Source: CMIE

- Production of ceramic tiles grew by 6.6% (Y-o-Y) in FY15. In FY16 the production grew further by 3.2% to 2.58 million tonnes. In FY17 both the consumption and production of ceramic tiles declined. Import of tiles forms a very small part of the domestic consumption of tiles, particularly due to imposition of anti-dumping duty on imports from China.

Chart 4: Domestic Production of Ceramic Tiles in India (Million Tonnes)



Source: CMIE

- Sanitaryware has a wide product range which includes sinks, toilet bowls, bathtubs, washbasins, sewer pipes etc. Around 50% of the producers in the ceramic sanitaryware market are in the organised sector.

Global Trade Scenario

Tiles

- The world production for ceramic tiles was around 13 billion square meters (~221 million tonnes¹) in 2016, which is a 0.6% growth over 2015. According to the World Ceramic Review, around 72% of the world’s production of ceramic tiles is contributed by Asia. For the calendar year 2016, China was the largest ceramic producer (contributing 50% to world production), followed by India which had a 7% share. The following are the five largest ceramic tile producing countries; India was world’s second largest tile manufacturer in CY16, producing 955 million square meters.

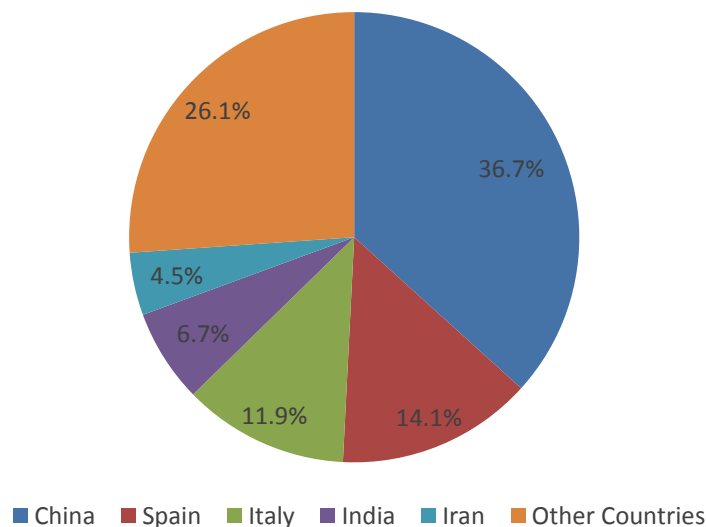
Table 1: Production of Ceramic Tiles - World and China (Million Square Meters)

Country	CY12	CY13	CY14	CY15	CY16
China	5200	5700	6000	5970	6495
India	691	750	825	850	955
Brazil	866	871	903	899	792
Spain	404	420	425	440	492
Vietnam	290	300	360	440	485
Total World Production	11226	11961	12377	12357	13056

Source: World Ceramic Review

- China, Spain, Italy and India are the largest exporters of ceramic tiles in the world. The production space for high-end and styled ceramic products is dominated by Spain and Italy. Both countries are also exporters of major machinable ball ceramics (machinables are essentially solid balls of unshaped ceramics).
- In CY16, world exports for ceramic tiles were 2,794 million square meters. China’s share in world exports was at around 37%, followed by Spain and Italy at 14% and 12%, respectively. India overtook Brazil to become the fourth largest exporter of ceramic tiles with share of 6.7%.

Chart 5: Country-wise share in World Exports of Ceramic Tiles (CY16)



Source: World Ceramic Review

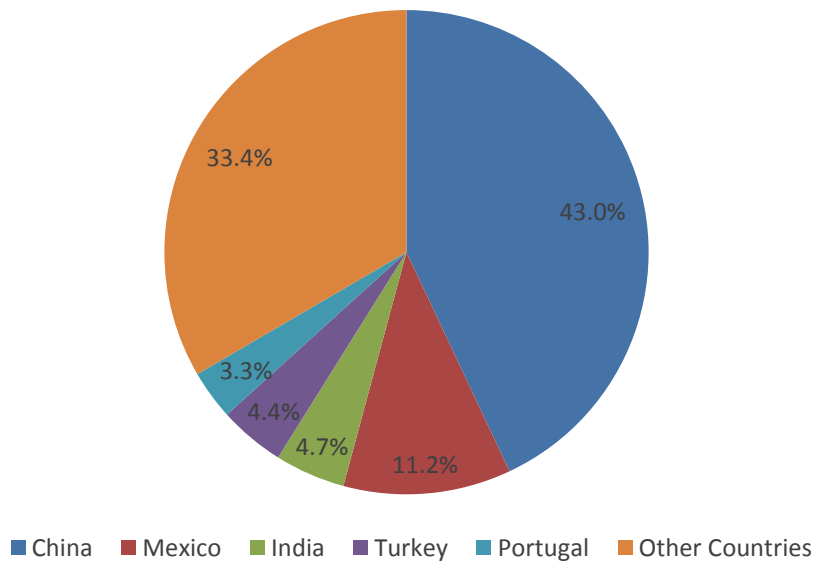
¹ 1 square meter = 17kg approximately

- USA, Saudi Arabia and Germany, are the largest importers of ceramic tiles.

Sanitaryware

- US, China, India, South Korea and Middle East countries, are major consumers of sanitaryware worldwide. Growth in the housing sector is the driving force for the growth of sanitaryware in these countries.
- Asia is the largest exporter of sanitaryware constituting 55% of the total world exports in CY16. For the same year, China contributed 43% to the world exports followed by Mexico with 11.2% share and India with 4.7%.
- USA, Korea and Germany are the largest importers of ceramic tiles in the world. Imports by USA constituted 24% of the total world imports.

Chart 6: Country-wise share in World Exports of Ceramic Sanitaryware (CY16)



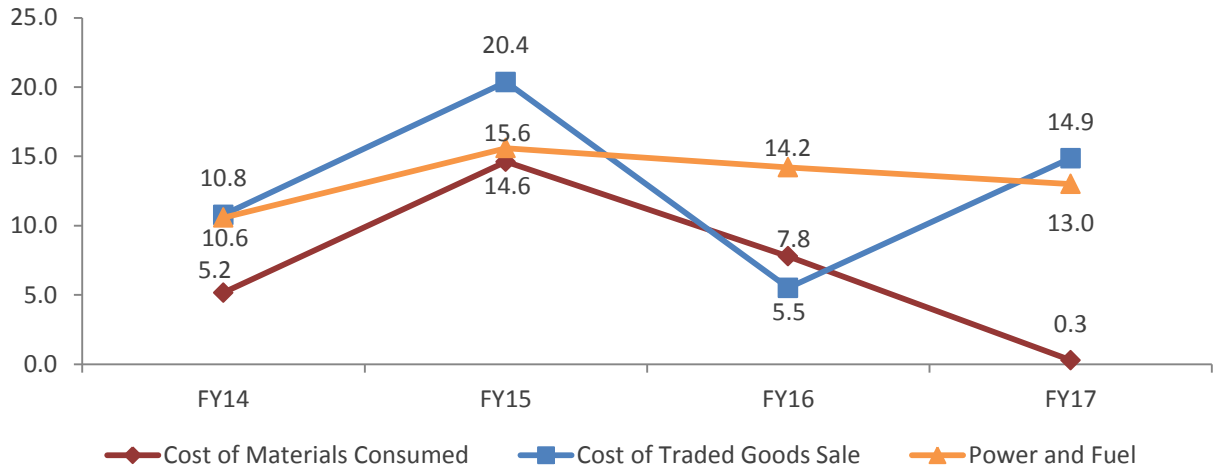
Source: World Ceramic Review

Cost Drivers

- Chart 7 depicts the growth three major cost drivers, for a sample of 70 ceramic tiles and sanitaryware companies.
- The *Cost of Materials* is one of the largest cost components for ceramic companies. Major raw materials used for the production of ceramic products are clay – ball clay, feldspar and bentonite.
 - The Indian Bureau of mines reports that in 2016 the ceramic industry was the second highest consumer of bentonite mined in India. Bhavnagar and Kutch regions in Gujarat and the Barmer region in Rajasthan are major producers of Bentonite. Jammu and Kashmir, Jharkhand and Tamil Nadu also house a few bentonite mines.
 - Andhra Pradesh has a large number of ceramic manufacturers, mainly due to the availability of feldspar in the region.
 - The cost of materials grew by 14.6% in FY15. This growth can be attributed to the rise in demand for ceramic products in the same year (See Chart 12).
- The established players in the organised sector of the ceramics industry source semi- finished products from Morbi. Due to easily available and established production technology and quality and brand being the differentiating factors, large players

resort to purchase of readymade products (with their own quality monitoring), rather than investing in new manufacturing facilities. In FY17, the cost incurred on tradable goods rose by 14.9%.

Chart 7: Major Costs (Y-o-Y Growth %)



Source: Industry, CARE Ratings Research

- The *power and fuel costs* rose by 14.2% in FY16 and by 13% in FY17. This rise comes despite the decline in natural gas prices between FY16 and FY17. The production process of sanitaryware involves casting of the ceramic materials into dyes, drying the casts, glazing and firing. Tiles are manufactured using a press to lay the clay in tile form; they are then baked and glazed. The industry is thus a major consumer of natural gas, which is used for firing.
- Most unorganised players especially those operating in the Morbi Ceramic Cluster in Gujarat, were earlier heavily dependent on coal gasifiers. In November 2013 the Gujarat High Court put a ban on the use of Type-A Coal gasifiers and in June 2018 Type B gasifiers were also banned. Though some entities continue to make use of coal gasifiers (due to the cost difference between using coal-based and gas-based gasifiers), once the ban is implemented gas consumption is expected to rise.

Demand Drivers

Real Estate

Housing

- The upcoming projects in affordable housing these cities have created fresh demand for the building and construction materials. Another market segment for ceramics is the replacement demand created on account of renovation works. As ceramics are competitively priced compared to other forms of flooring including marble, they are widely used as replacement of natural stones. Availability of multiple product lines at varied price ranges leads to easy availability of replacement alternatives. However the additional expenses incurred in the form of labour, cement etc. is high which ultimately raises the total cost of renovation.
- Although the launch of new projects has been deferred, the demand for ceramics from the real estate industry has picked up as builders try to complete stalled projects due to implementation of the RERA and the Indian Bankruptcy Code (IBC),

which obligates the developers to complete the projects in time as otherwise they are liable to pay interest on the advance paid by the buyers.

- The limit on Priority Sector Lending (PSL) loans was raised by the RBI from Rs.28 lakh to Rs.35 lakh for metropolitan regions. This is likely to bring in growth impetus in the affordable housing segment, especially in initiation of projects in areas surrounding the metro cities.

Retail Malls and Commercial Spaces

- A part of the demand for building and construction materials comes from the retail and commercial real estate spaces. Retail shopping malls are projected to expand up to 12-15 billion square feet by 2020. In H1-FY18 there was an addition of about 1.8 million square feet of fresh retail space supply in seven key cities across the country. By H2-FY18, around 4-5 million square feet of retail market space is expected to be added to the fresh supply.

Hotels

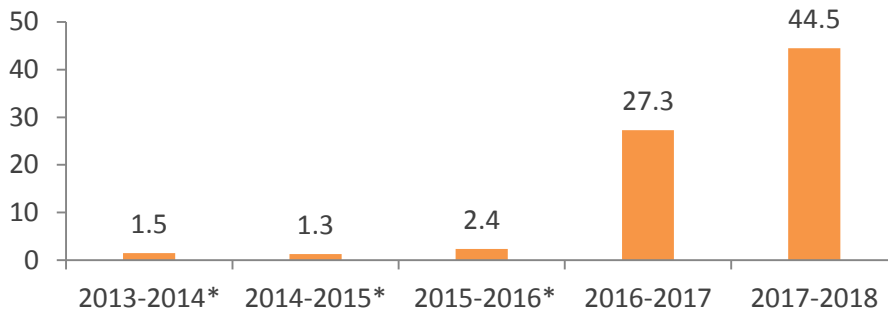
Another market segment for the ceramics industry is the hotel industry. The supply of hotel rooms as of FY16 was 113,622 rooms. CARE projects that by FY21 that a total of 56,912 hotel rooms are to be constructed in the major cities. However, given the lag in project completion of hotels, the potential demand for ceramic products is also likely to be deferred beyond FY21.

Public Policy Initiatives

Pradhan Mantri Awas Yojna (PMAY) – Urban and Gramin

- As of July 2018, 51 lakh houses were approved under the PMAY - Urban. The programme is implemented under various channels of construction credit access to beneficiaries such as slum rehabilitation, credit interest subsidy, etc. Given that the policy mandates construction of houses conforming to the National Building Code standards, the use of ceramic sanitaryware becomes a necessary part of the construction. *Under the PMAY-Urban, 40 million urban homes are projected to be constructed by 2022.* Thus, robust growth of the urban housing sector is expected to drive the growth in the ceramic industry, especially ceramic tiles.
- The PMAY - Gramin is the rural arm of the “Housing for all by 2022” mission programme. The PMAY-Gramin aims to build 1 crore houses by the end of FY19. The subsidies on construction credit are awarded to beneficiaries identified by the gram panchayat. Clearly, the untapped rural market for sanitaryware and ceramic tiles is set to gain, with increase in number villages covered under the policy. As of FY18 end, 44.5 lakh houses were constructed under the PMAY-Gramin.

Chart 8: Number of houses built under PMAY- Gramin (Lakhs)

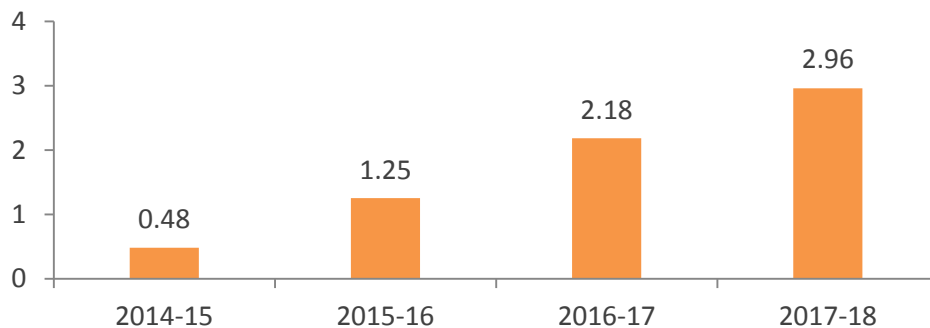


*Houses built under Indira Awas Yojna
Source: PMAY-G MIS

Swachh Bharat Abhiyan (SBA)

- Under the SBA - Urban, around 3.9 lakh public toilets and community toilets have been built. The SBA – Urban, provided for construction of 33.4 lakh individual household latrines as of FY18 end and an estimated 42 lakh toilets are expected under construction by FY19 end.
- The SBA- Gramin, provisioned for construction of 2.96 crore household toilets. The Gramin arm of the SBA has paved a way for the introduction of the use of sanitaryware in rural households. Added to this is the awareness of the importance of sanitation in leading a healthy lifestyle, which has led to creation of rural demand for sanitaryware.

Chart 9: Number of Household Toilets constructed under the SBA (crores)



Source: SBA-Gramin MIS

- The SBA also incentivizes Open Defecation Free (ODF) cities and villages. This has led to construction of public toilets, in addition to household toilets. There lies a huge potential demand for ceramic products under the SBA as only 19 of the 36 states and union territories of the country have been declared open defecation free.
- The demand for ceramics created out of the SBA has majorly been met by the unorganised players which offer products at a cheaper rate. The construction of toilets is tendered out by the government to private entities or contractors. Some part of this demand is catered to by the organised players through their line of products offered at economical prices.

Lifestyle

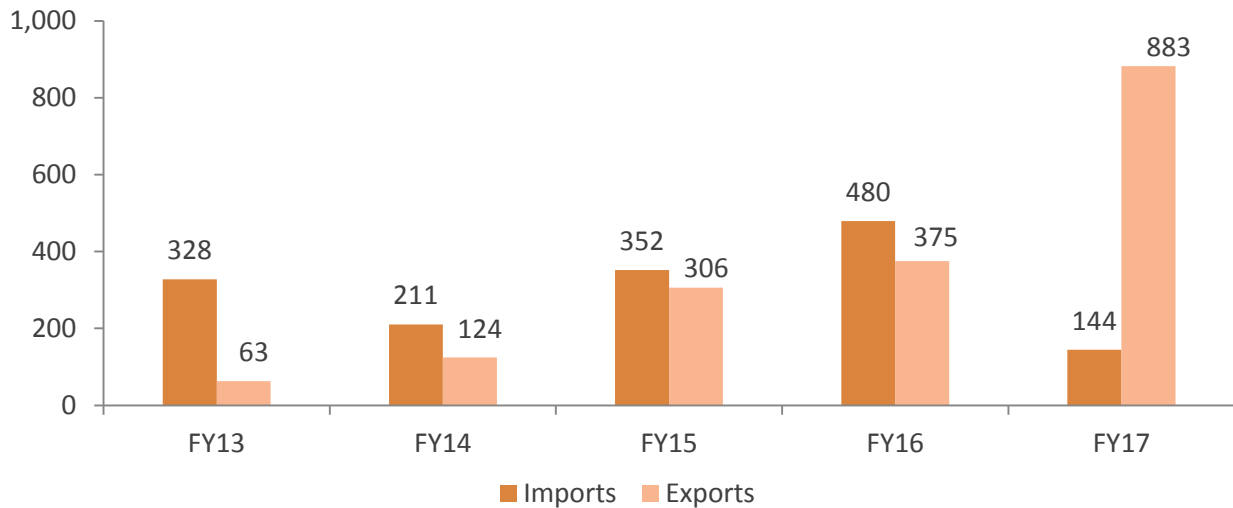
- Urbanization has altered the lifestyle choices of the people in India. Rising disposable income among the urban middle class has led to preference of premium ceramic tiles and sanitaryware, especially in the metropolitan cities.
- Tier II and Tier III cities are emerging consumption centres as the rapid urbanization has changed the architectural design and home décor choices of houses constructed in these cities.

Trade Dynamics

Tiles

The exports of ceramic tiles rose from 375 thousand tonnes to 883 thousand tonnes from FY16 to FY17. This rise in volume of exports is attributed to the major players shifting to manufacturing of premium products which are in demand in overseas markets. The sharp decline in import of ceramic tiles from 480 million tonnes in FY16 to 144 million tonnes in FY17 is attributed to the anti-dumping duty levied on imports from China in 2016.

Chart 10: Volume of Imports and Exports of Ceramic Tiles (Thousand Tonnes)

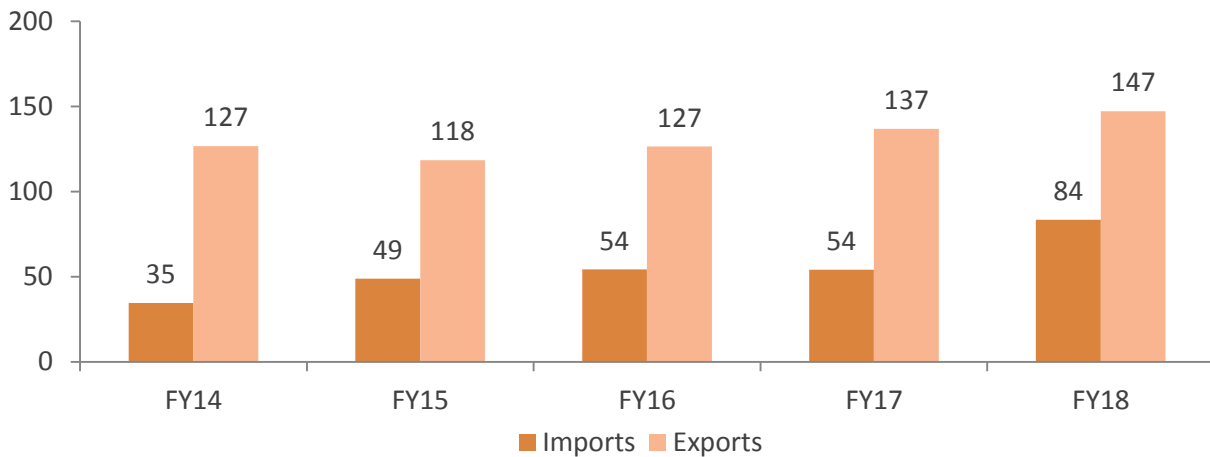


Source: CMIE

Sanitaryware

Imports of Sanitaryware grew by 55% in FY18 i.e. from 54 thousand tonnes in FY17 to 84 thousand tonnes. The uptick in imports was due to the increased demand for premium product brands in India. Exports of sanitaryware have been growing steadily. In FY15 the export volumes had declined marginally, owing to a rise in domestic consumption.

Chart: 11 Volume of Imports and Exports² of Sanitaryware (Thousand Tonnes)

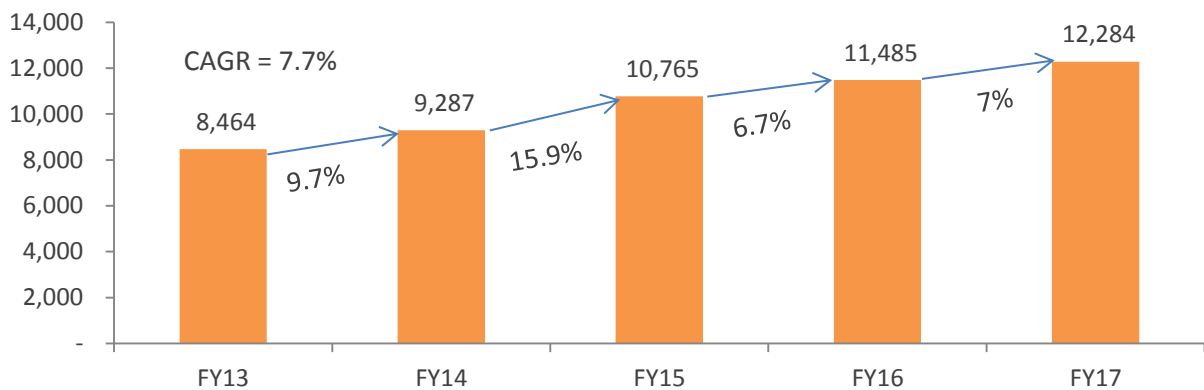


Source: Department of Commerce

Financials

Chart 12 gives the net sales of the ceramics industry for FY13-FY17 for a sample of 70 companies in the organised sector of the ceramics industry.

Chart 12: Net Sales of Ceramic Industry (Rs Crore)



Source: CARE Ratings Research
*Sample of 70 companies

- The ceramics industry grew by around 16% in FY15, which was also the year SBA was launched. The growth has slowed since then. The moderation in growth was due to the subdued real estate growth. In FY17, net sales grew by 7%.
- Similarly, the operating profitability has also been rising steadily. The Operating Profit Margin was 7.5% in FY17 as compared with 6% in FY16. This can be attributed to two factors – first, the growth in the affordable housing and second the rise in demand due to the implementation of the SBA. However, steep rise in gas prices in FY17 have been an important factor impinging the growth of operating profits.

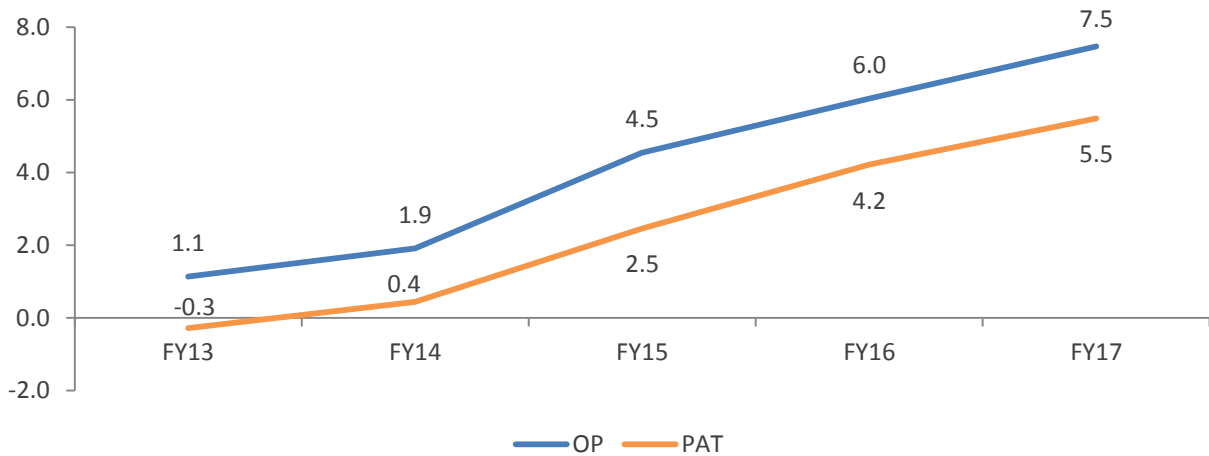
² Following HS Codes were considered for computing total imports and export:

Export: 69060000, 68101000, 69109000, 69119010, 69119020, 69119090, 69120030

Import: 69059000, 69060000, 69099000, 69101000, 69109000, 69119010, 69119090, 69120030

- PAT margin of the industry players gained momentum in FY15 and the uptick has since continued. In FY17 the PAT margin stood at 5.5% compared with 4.2% in FY16.
- The implementation of GST has had a positive effect in terms of accelerating formalization of the industry and also in narrowing down the difference in the costs faced by the organised and the unorganised sectors. In November 2017, the GST rates on ceramic tiles and sanitaryware were brought down from 28% to 18%.
- For FY18, 13 (of the 70 sampled) companies recorded a top-line growth of around 8.9% as compared with 7.2% in FY17. The operating profit margin of these companies was 10% which was 190 bps lower compared with FY17. PAT margin declined by 110 bps from the FY17 level to 6.7% in FY18.

Chart 13: Operating Profit (OP) and PAT Margins

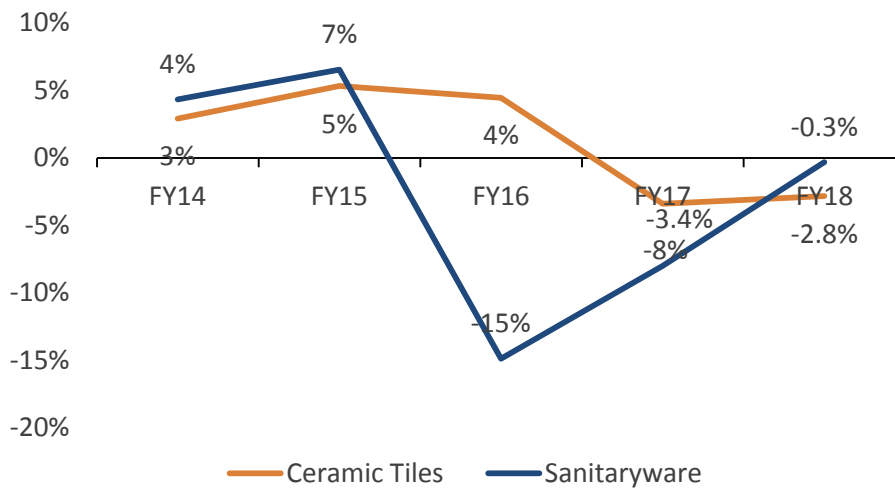


Source: CARE Ratings Research
*Sample of 70 companies

Prices

- The WPI inflation for sanitaryware declined sharply by 15% in FY16. As of FY18 end, the prices for sanitaryware continue to fall but the rate has come down to 0.3% compared with 8% in FY17.
- Prices for ceramic tiles have been declining in FY17 and FY18. The WPI inflation for tiles fell by 3.4% in FY17 and 2.8% in FY18. The growth momentum of the industry had slowed in FY16 and FY17 owing to large scale dumping of tiles from China. In FY16 import of tiles grew by 36%.
- Prices of ceramic tiles and sanitaryware may pick-up conditional on the demand factors which include the timeline of project completions by both the government and the real estate developers.

Chart 14: % Change in WPI for Ceramic Tiles and Sanitaryware

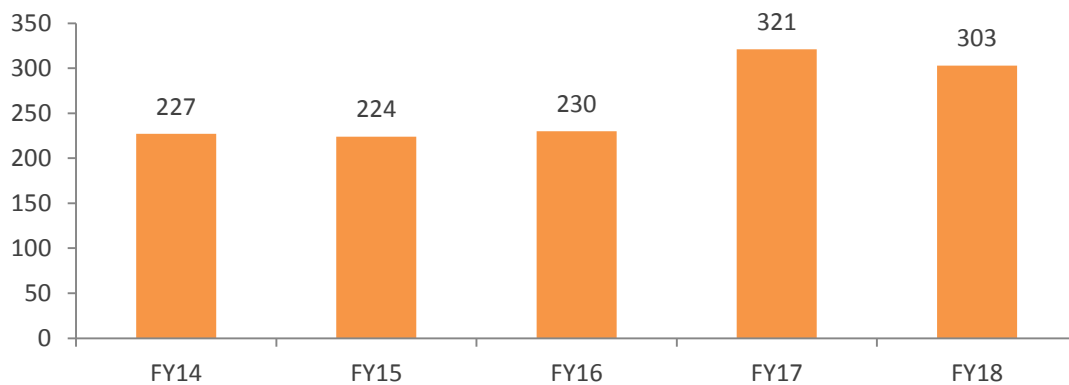


Source: CMIE

Challenges

- The implementation of the RERA brought about a structural change in the real estate sector and is bound to affect the building materials sector as well. In FY17 the gross bank credit to the commercial real estate sector grew by 4.5% and the growth in the housing loans extended to private individuals was 15%. In line with the bank credit growth, the number of new investments in the construction and real estate sector grew by 39% in FY17 (Chart 15). In FY18, gross bank credit to the commercial real estate sector grew by 1.5% and the growth in the housing loans extended to private individuals was 13%. In FY18 new investments declined by 5.6% as a result of the implementation of RERA in 2017. This dip in new investments may prove to be a slight concern for the ceramics industry.

Chart 15: Number of New Investments in Construction and Real Estate Industry



Source: CMIE

- Replacement Demand and Maintenance Cost: The overall replacement cost of ceramic tiles and sanitaryware is high, as renovation and refurbishing comes with additional cost on labour and cement. Hence, manufacturers look forward to

technological innovation in production that allows them to offer durable products, especially those in the premium range with advanced functional features.

- **Exports and Global Competition:** Globally the demand for high end ceramic products has been growing. The motive of the top players in the Indian ceramic industry is to cater to this global demand of premium products. This also requires rapid adaptation of technological innovation and capacity building.
- **Unorganised Sector:** The unorganised players mostly operate from the ceramic industries cluster at Morbi, Gujarat which has more than 400 production lines. The industries in Morbi operate at a cost advantage due to easy access to the major raw materials – clay and feldspar and due to the natural gas availability from the Gujarat gas grid. The ceramics market is thus highly competitive.
- **Gas Prices:** Ceramic manufacturers are likely to face power cost escalation given the recent rise in gas prices since October 2017. The natural gas requirements of the ceramics manufacturers are met through imports. In FY18, average price of Natural gas for industrial consumers including ceramic manufacturers in large parts of Gujarat was around Rs. 28 -30/SCM. Given the current rise in energy costs, the ceramic manufacturers are likely to face cost escalation in the coming months.

Outlook

- The ceramic cluster at Morbi in Gujarat is set to witness high investment of around Rs 1,500 crore involving 50 new plants manufacturing wall tiles by February 2019. Thus, higher production in ceramic tiles is anticipated.
- Once the effect of RERA is smoothed, new project launches are likely to gain momentum and the ceramics industry would benefit from the fresh demand in the building materials sector; but demand for ceramic products would be created with a lag effect as the installation of ceramics comes in the flag end of the construction project completion.
- Ceramic tiles and sanitaryware industry witnesses cyclical performance over years, which roughly follows the real estate and housing industry, with a lag effect. Over the next 3 to 4 years, development projects on affordable housing are set to tap the unmet demand of around 6-8 billion sq. ft. in India.
- The premium range of ceramic products is a market segment of the industry in the country with very few competitors. The major organised players seek to expand into the premium products segment by specializing in designer tiles and sanitaryware. Their target is to capture the overseas market and to tap the demand from the projects in the Tier II and metro cities.
- The growth in the ceramic industry is expected to be driven by two factors, firstly the rise in the consumption of ceramic tiles and sanitaryware which could lead to volume growth and secondly, the increase in production costs which are likely to be passed on to the consumers. The industry is expected to grow between ~7-8.5% in FY19 as compared with the previous year. The organised sector companies are likely to register better growth rates than the industry average.

