CONSTRUCTION MATERIALS

June 2021

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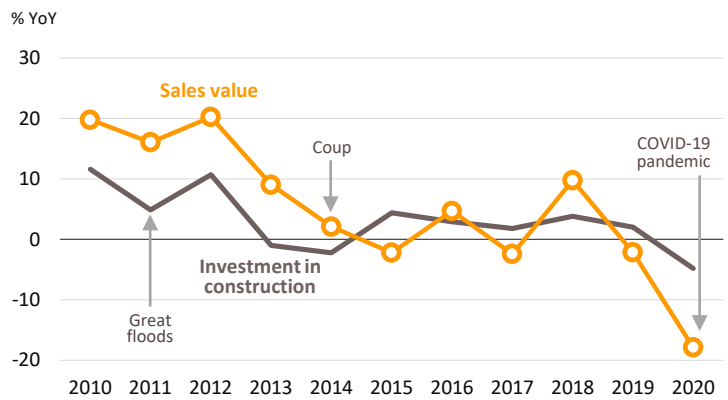
Over the three years from 2021 to 2023, manufacturers and distributors of construction materials will see improving business conditions thanks to rising demand on both domestic and export markets. This outlook will be helped by two factors. (i) Overall expenditure on construction within Thailand is expected to grow by an annual average of 4.9-5.2%. This will come from stronger government spending on infrastructure megaprojects, especially in the Eastern Economic Corridor (EEC), and on expansions and upgrades to the national road and rail networks, as well as from a rebound in the economy that will then boost private-sector construction. (ii) As the COVID-19 crisis abates, regional economies (in particular in the CLV countries, the main export target for Thai players) will return to growth and this will then feed into greater activity in construction and real estate markets, while in addition, governments in the region are also spending more heavily on infrastructure.

Revenue for both manufacturers and distributors of construction materials should increase over the coming period, even while competition from both domestic producers and importers is stiff. Against this background, manufacturers will increase the quality of their products by overhauling their production processes and using more advanced manufacturing technology, while distributors will adjust their business models to meet the evolving demands of digital consumers, for example by developing new distribution channels.

Overview

Construction supplies are a crucially important upstream component of the construction and real estate sectors, and because some 60% of all construction costs are for materials (Input-Output Table, 2015), the outlook for the construction supplies industry tends to move with these in a coordinated fashion (Figure 1). The most important product groups can be split into the two groups of building materials (e.g., cement, ready-mixed concrete and construction steel) and home decorations (e.g., ceramic tiles and sanitary wares) and together these account for 64% of sales in the industry (Figure 2).

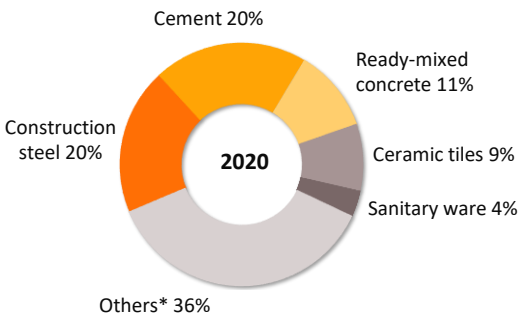
Figure 1: Sales Value of Construction Materials and Investment in Construction



Sources: Office of The National Economic and Social Development Council (NESDC), Office of Industrial Economics (OIE)

Note: Construction materials include cement, ready-mixed concrete, construction steel, ceramic tiles and sanitary wares.

Figure 2: Market Share by Sales Value



(*e.g., glass and windows, concrete blocks, concrete pipes, precast concrete sections, high tensile steel, and galvanized steel sheets.)

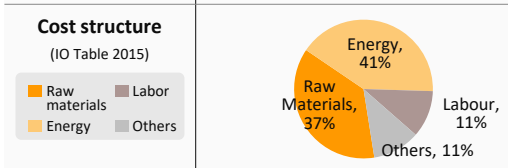
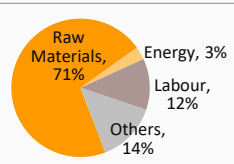
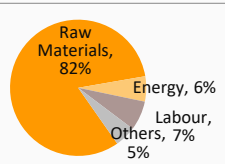
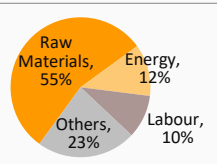
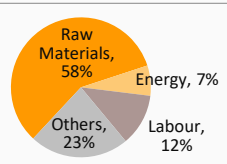
Source: OIE

Note: Construction steel referred to bar and section (hot-rolled structural steel)

Industry structure

- **Producer:** Mid- and large-sized operators enjoy advantages over smaller players in virtue of their stronger financial base, their better management of production processes and their favorable bargaining position relative to suppliers, for example, price and deliveries. This then allows these players to mass produce goods more efficiently, which in turn generates economies of scale for them. In contrast, smaller operators tend to have a weaker financial position and this then forces them to focus on the production of a more restricted and more specific range of goods. The structure of the manufacturing side of the sector is summarized in Table 1.

Table 1: Structure of the Construction Material Industry (Main Products) in Thailand

Product	Cement	Ready-mixed concrete	Construction steel (bar & section)	Ceramic tiles	Sanitary ware
Manufacturing and Investment	• Cement production is capital-intensive and businesses are typically integrated throughout the production chain, from upstream production of raw materials to downstream finished products. Hence, there are heavy entry barriers for new players. • There are 3 manufacturers that have a production capacity of more than 10 mn tonnes/year. The combined capacity accounts for 85% of all cement capacity in Thailand.	• There are many large-, mid- and small-sized producers of ready-mixed concrete. • However, most of the large players are part of a conglomerate that includes cement producers, so they enjoy cost advantages. • Production plants are normally located near areas with significant construction activity across the country.	• Producers of bars and sections can be divided into those that operate their own furnaces and those that do not. • Thailand lacks upstream raw material, so this has to be imported, raising production costs. Domestic steel prices are strongly influenced by global prices.	• The majority of Thai manufacturers are mid-sized or minor players and produce on order. • Large players have little financial constraints, so they can employ technology-intensive production and sell under their own brands. They command 90% of the market.	• This segment is capital-intensive and production is fully integrated, from up-to down-stream. • There are 5 large producers including Thai operators, joint ventures between Thai and foreign players, and world-class international companies that have set up production facilities in Thailand.
Target market	• Almost all production is for domestic consumption and only 15% of output is for export; finished products are heavy, so transportation costs for export is high. • The private sector (residential and commercial buildings) accounts for 60% of the cement domestic market, and another 40% goes to the public sector.	• Ready-mixed concrete is an extension of the cement manufacturing process. It is produced according to domestic demand (none is exported).	• Most output is for the domestic market, while 10-15% is for export. The public sector is the main consumer in this segment. • Cheaper Chinese imports are slowly gaining market share.	• About 85% of output is distributed to the domestic market and 15% is exported. • This segment is marked by strong competition from imported goods (especially in pricing). And due to the wide range of choices available, inventories are high.	• The domestic and export markets are split 60:40, with the majority of output consumed by the real estate sector. • Cheaper Chinese imports are changing the landscape; previously, imports were mainly high-end goods.
Examples of large producers	SCG, INSEE, TPI Polene, Siam City Cement	SCG, INSEE, TPI Polene, CCP	Tata Steel, Millcon, SYS, TMT	SCG, Dynasty Tiletop, Unicer	SCG, Kohler, Toto, Lixil, Villeroy & Boch
Cost structure (IO Table 2015)					
Segment data (annual average), 2016-2020 /1					
Production	39.5 million tonnes/year	17.0 million m^3/year	4.7 million tonnes/year	139 million m^2/year	7.5 million pieces/year
Domestic Sales	34.4 million tonnes/year	17.0 million m^3/year	5.0 million tonnes/year	161 million m^2/year	3.9 million pieces/year
Export	5.4 million tonnes/year	-	0.4 million tonnes/year	21 million m^2/year	88,571 tonnes/year
Import	0.8 million tonnes/year	-	0.3 million tonnes/year	52 million m^2/year	29,457 tonnes/year
Capacity Utilization	57.8%	66.5%	54.4%	62.3%	61.3%

Source: The Office of Industrial Economics (OIE), Department of Business Development (DBD) and MOC, compiled by Krungsri Research
Note: 1/ Data from the Office of Industrial Economics on production capacity utilization and domestic consumption and production have been adjusted from 2016 onwards.
2/ The move by Thai producers to establish production facilities overseas and then to reimport from there to Thailand has led to a large jump in the import figures.

- **Trader:** At present, Thailand is home to around 8,200[3/] distributors of construction materials, split between 163 large players, 723 mid-sized operators, and 7,332 small companies. These can be split into two principal sub-groups, according to the characteristics of the business.

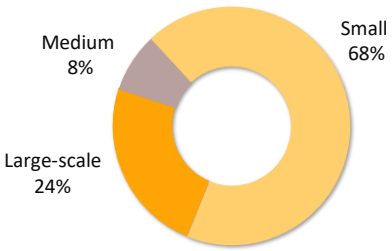
  - **Modern trader** use comprehensive management systems across their business, from the sales floor to the back-office. These operations stock a wide range of construction materials and related goods under a single roof, and these generally cover the complete spread of consumer and trade needs, from basic construction materials through to home repairs, decorations and furniture. Players are generally medium- or large-scale operations that have advantages in terms of their capital base and their lower operating costs, and indeed, many are now in the process of extending their customer bases in the provinces by expanding their branch networks through the regions. One favored strategy for increasing contact points with customers is by offering after-sales services, such as those for home repair and the installation of home appliances. Within Thailand, six large players dominate the market and together these have a 24% share. These are: the HomePro group (HomePro shops themselves are more oriented towards retail, while MegaHome is focused on the wholesale and trade market), Thai Watsadu, Siam Global House, Dohome, and the Boonthavorn Group (Figure 3).

Table 2: Market Share of Key Traders (2019)
(Modern trade)

Rank	Company	% Market Share of Revenue
1	Home Product Center	10.0
2	Siam Global House	4.3
3	CRC Thai Watsadu	4.3
4	Dohome	2.7
5	Boonthavorn Group	1.6

Source: Ministry of Commerce (MOC) (as of 2019), compiled by Krungsri Research
Note: TSIC G466310, G466320, G466330, G466340, G466390, G475210, G475220, G475230, G475240 and G475250

Figure 3: Revenue Share by Type



Source: MOC, complied by Krungsri Research

- **Traditional trader** in the construction sector have more old-fashioned management systems and their operations emphasize the distribution of basic building materials, such as cement, sand and hardware (e.g., locks and nails), together with materials used in home repairs and decoration that meet consumer demand in the local area. However, in the face of rising competition from modern trade outlets, some players are also now beginning to increase their competitiveness by modernizing their operations and offering a more comprehensive set of services. This extends to giving their consumers a wider range of choices that includes not just building materials but also home decorations, renovating their premises, using alternative distribution channels (especially by increasing their online presence), putting in place modern stock control systems, and offering organized delivery services. Nevertheless, traditional players remain at a disadvantage relative to modern trade outlets with regard to their finances, marketing and branding.

Situation

Basic building materials such as cement and construction steel remain important product groups for this market. However, prefabricated building materials (e.g., precast concrete flooring) are increasingly making inroads as operators look to cut construction periods and reduce labor costs, for example, over 2017-2020, sales of these grew at an average rate of 5.1% per year.

The 2020 outbreak of COVID-19 forced the government to institute a nationwide lockdown that brought much of the economy to a temporary halt, and GDP contracted by 6.1% in 2020, after growing by 2.4% in 2019. The construction sector did not escape the year's economic turbulence and following growth of 2.3% a year earlier, in 2020, total spending on construction rose 1.4%, pulling down **the volume of goods distributed to the domestic market[4/] by 4.0%** (a continuation of 2019's contraction of 3.4%). However, the two halves of the market have moved in different directions: (i) Investment in construction by the public-sector expanded 4.8% as the government tried to accelerate work on infrastructure projects, but (ii) private-sector spending on construction shrank 2.9% as spending power weakened with the economic recession and real estate developers decided to hold off work on new projects (the number of new houses released to the market crashed

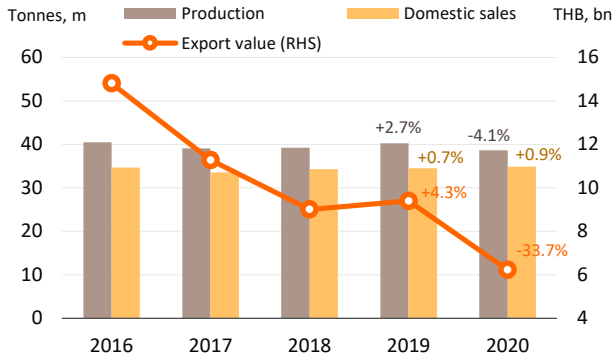
3/ This number includes companies that are registered with the Ministry of Commerce, that have submitted a complete set of financial accounts for each of the 5 years from 2015 to 2019, and that have declared an annual revenue of at least THB 500,000.

4/ Calculations of the quantity of construction materials distributed to the market are based on figures for cement, ready-mixed concrete, tiles, sanitary wares and construction steel. Together, these account for 60% of the market for building materials in Thailand.

41.6% to 65,065 units in 2020) and instead maintained liquidity and cash flow by selling off unsold stock. Economic troubles across the region also affected **exports of construction materials**[5/] which slumped 17.8% as real estate markets in CLM countries softened.

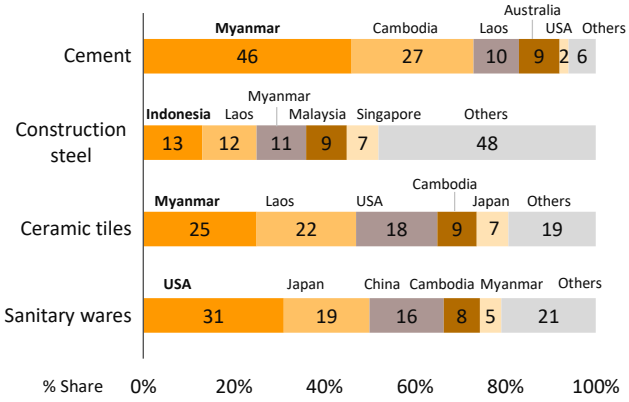
- **Overall situation for production and distribution:** In 2020, the slowdown in both domestic and export construction sectors meant that the market for construction materials was depressed through the year. Details of this are given below.
  - **Cement**: **Output fell 4.1% but domestic sales volume rose 0.9%** to 34.8 million tonnes (Figure 4), supported by demand for use in government-backed infrastructure projects. However, demand in the real estate market fell. **Exports suffered, slumping 33.7%** and generating just THB 6.2 billion, with markets performing especially badly in Cambodia (-57.1%) and Lao PDR (-60.6%) (Figure 5).
  - **Ready-mixed concrete:** This is prepared according to **domestic demand so output and sales match each other, both rising 7.8%** to 18.2 million cu.m. on stronger demand for use in government infrastructure construction (Figure 6).
  - **Construction steel (bar and section): Output contracted 13.3% on weaker demand at home and overseas. Having already shrunk by 11.3% in 2019, sales in the domestic market fell by another 15.7%** in 2020 thanks to sluggish real estate markets. **Exports crashed 32.9%**, after shrinking 3.5% in 2019 (Figure 7). Economic weakness and low levels of investment in real estate were also seen across Thailand's main export markets, and thus sales to Malaysia, Singapore and Lao PDR slumped by respectively 58.4%, 30.6% and 15.2%. Imports moved in step with these declines and fell back 24.4% in the year.

Figure 4: Cement - Production, Domestic Sales and Export



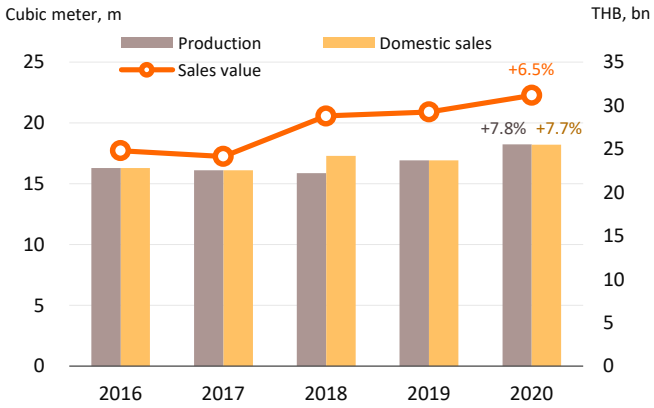
Note: Cement referred to portland and mixed cement (excluding clinker).
Source: OIE

Figure 5: Export Market Share of Construction Materials by Country in 2020 (Value Sales)



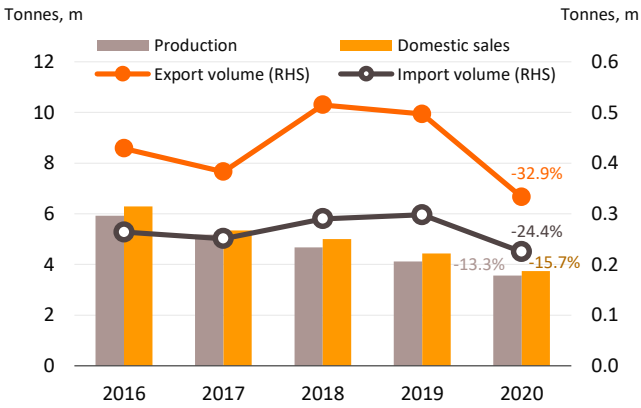
Sources: ISIT & MOC

Figure 6: Ready-mixed Concrete – Production and Domestic Sales



Note: Ready-mixed concrete industry has no export.
Source: OIE

Figure 7: Construction steel - Production, Domestic Sales, Export and Import

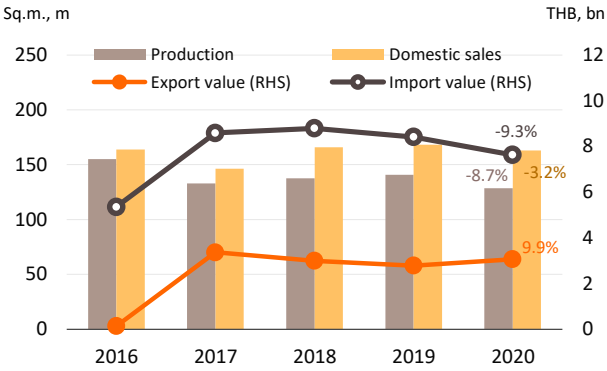


Note: Construction steel referred to bar and section
Source: Iron & Steel Institute of Thailand (ISIT)

5/ Exports are calculated from sales of cement, tiles, sanitary wares and construction steel.

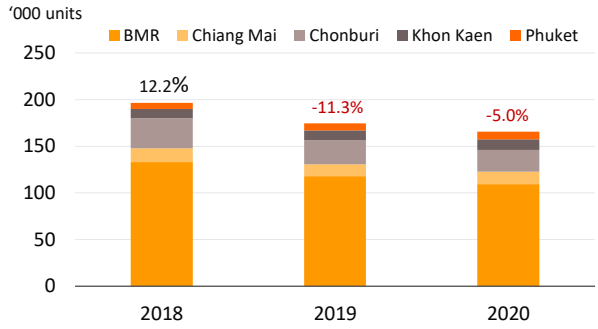
- **Ceramic floor and wall tiles: Output declined 8.7%** (compared to growth of 2.4% in 2019), while **distribution to the domestic market slipped at 3.2%**, to 163 million sq.m. (Figure 8) as investment in new residential accommodation dried up; the number of new house builds completed in the year in the Bangkok Metropolitan Region and the four major provinces of Chiang Mai, Chonburi, Khon Kaen and Phuket (together accounting for 78% of all new house construction in Thailand) fell 5.0% (Figure 9). However, **exports moved against this trend and rose 9.9%** on stronger demand from the US (Thailand's 3rd biggest market for ceramic tiles, after Myanmar and Lao PDR). Weakness in private construction also drove **a 9.3% drop in imports.**
- **Ceramic sanitary wares:** High levels of stockholding (stocks rose 17.4%) weighed on **production, which dropped 14.7% in response**. Distribution to the **domestic market weakened by 9.9%** (Figure 10). **The value of exports edged up 1.4%** on stronger sales to the US (+32.5%) and Japan (+18.7%). **The value of imports also fell 4.0%**, with imports from Vietnam and Japan (respectively the second and third most important sources of imports, after China) each down by 50.4% and 51.6%.

Figure 8: Ceramic tiles - Production, Domestic Sales, Export and Import



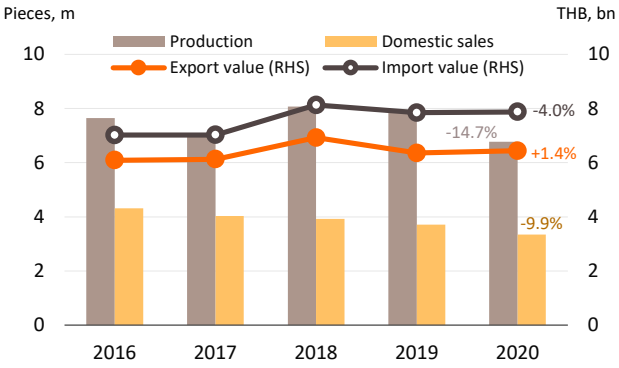
Sources: OIE & MOC

Figure 9: New Registered Housing



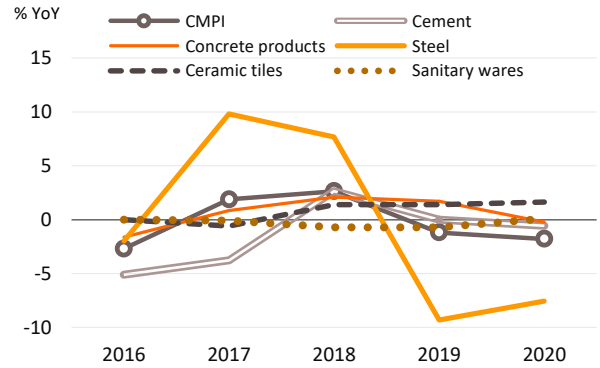
Note: Housing referred to detached houses, duplexes, townhouses, condominiums and shophouses
Source: Real Estate Information Center (REIC)

Figure 10: Sanitary wares - Production, Domestic Sales, Export and Import



Sources: OIE & MOC

Figure 11: Construction Material Price Index



Source: MOC

Construction Materials Price Index (CMPI): In 2020, the CMPI slipped 1.8% from its 2019 level due to the weakness in the construction sector, with falls seen in the prices of most product categories (Figure 11). This decline was led by prices for construction steel, which dropped 7.6% in step with lower prices on global markets, though the latter began to turn around at the end of the year as cyclical recovery in the world economy and the relaxation of lockdowns meant that demand returned to the construction sector, helped further by greater investment in infrastructure in many countries. Prices for concrete products slipped 2.0% on a fall in demand for concrete pipes and precast concrete flooring, while those for cement weakened 0.6% as stocks were run down. However, prices for sanitary wares edged up 0.1%, helped by price increases for mirrors, stainless steel handles and water inlet hose. Prices for ceramic tiles also rose 1.7%.

■ Business performance in 2020

● Producer

Depressed conditions in the real estate sector weighed on manufacturers' revenue, and this shrank 9.4% to THB 304 billion for the 12 listed companies on the stock exchange that are active in cement, ready-mixed concrete, construction steel, tiles and ceramic sanitary wares (Figure 12). However, despite this, the average net profit margin for these companies increased from 4.2% in 2019 to 4.7% in 2020.

- **Cement and ready-mixed concrete:** Overall revenue fell 9.9% but a drop in the cost of energy[6/], which accounts for around 40% of production costs (Table 1), helped to lift the net profit margin to 5.3% from 4.8% a year earlier.
- **Construction steel:** Total revenue slumped 23.7% (a continuation of 2019's fall of 37.1%), though net profits margin improved from -5.1% in 2019 to -3.4% in 2020 thanks to a rise in global steel prices in the last quarter of the year.
- **Tiles and ceramic sanitary wares:** Revenue contracted 6.6% but the net profit margin held steady at 7.4% on a significant fall in energy costs.

● Trader

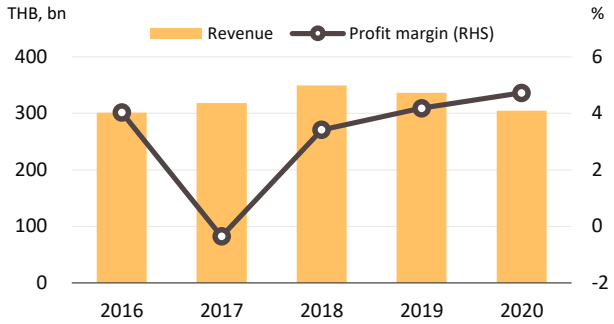
In 2020, serious economic weakness and the effects of the lockdown led to a softening of consumer spending power, and as such, revenue for modern trade operations (HomePro, Siam Global House and Thai Watsadu) fell 3.4% from a year earlier (Figure 13). However, net profit margins remained largely unchanged (Figure 14) thanks to much stronger sales of house brands. The latter are cheaper to produce than branded products and the lower retail prices helped to attract much greater consumer interest in a market that was suffering from the recession.

◢ Situation in the first quarter of 2021

In the first quarter of the year, the quantity of construction materials produced and distributed was lifted by a 13.5% YoY rise in investment in construction, driven principally by a 24.0% YoY jump in public-sector spending on building work, most notably on a number of infrastructure projects. This then boosted the domestic distribution of **cement and construction steel** by respectively 8.2% YoY and 1.6% YoY. At the same time, a recovery in private-sector spending on construction (up 0.4% YoY) and an uptick in work on repairs and renovation underpinned rises of 8.4% YoY and 2.2% YoY in the volume of **ceramic tiles and sanitary wares** distributed to the domestic market (Table 3).

6/ Prices for Dubai Crude crashed 33.2% in 2020 to an average of USD 42.2/bbl from USD 63.2/bbl in 2019. Prices for natural gas also dropped 19.8% in 2020, falling to an average of USD 2.03/MMBtu.

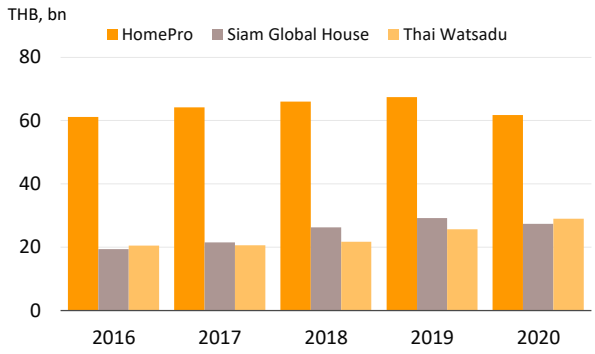
Figure 12: Major Producers' Business Performance



Source: SETTRADE

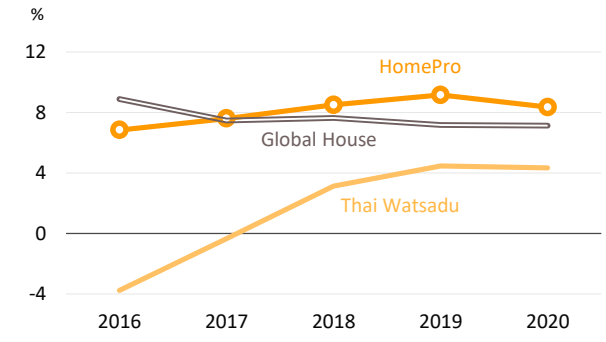
Note: Major producers include (1) Siam Cement (2) Siam City Cement (3) Chonburi Concrete Product (4) Dynasty Ceramic (5) The Royal Ceramic (6) TPI Polene (7) The Union Mosaic Industry (8) Daimond Building Products (9) Millcon Steel (10) G J Steel (11) SCG Ceramics and (12) Quality Construction Products

Figure 13: Major Modern Traders' Revenue



Sources: MOC & SETTRADE

Figure 14: Major Modern Traders' Net Profit Margin



Sources: MOC & SETTRADE

Table 3: Construction Materials Situation (1Q21)

Products	Unit (mn)	Production	% YoY	Domestic Sales	% YoY	Exports (THB, bn)	% YoY
Cement	Tonnes	10.33	4.6	9.47	8.2	2.13	11.6
Ready-mixed concrete		4.58	-7.3	4.57	-7.3	-	-
Construction steel	Tonnes	1.13	4.8	1.18	1.6	2.17	38.0
Ceramic tiles	Sq. m.	35.09	0.9	44.06	8.4	0.82	7.9
Sanitary wares	Pieces	1.83	-1.9	0.82	2.2	1.77	13.2

Sources: OIE, ISIT, Krungsri Research

The value of exports also rose in 1Q21, though this was especially strong for sales of **construction steel**, which jumped 38.0% YoY on a sharp rise in prices and strong growth in the important markets of Indonesia (up 84.1% YoY), Malaysia (up 49.9% YoY) and Lao PDR (up 10.6% YoY). Exports of **cement** rose 11.6% YoY, with exports to Myanmar (Thailand's most important overseas market for cement) climbing 31.3% YoY, though sales have now been adversely affected by the country's deepening political woes.

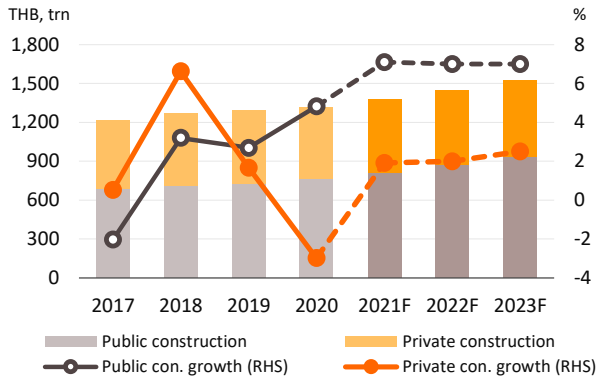
Combined revenue for the major producers (the 12 companies listed on the stock exchange) **slipped 0.5%** but the industry net profit margin climbed from 5.1% in 1Q20 to 8.7% in 1Q21. **Total revenue for traders**[7/] **also surged 7.8% YoY**, while net profit margins stood at 9.8%, helped by players' use of a wider range of distribution channels. Online sales were especially strong thanks to the emergence of a new wave of COVID-19 infections and the subsequent need for many people to work from home.

Industry Outlook

Demand for construction materials is forecast to pick up over the next 3 years. Krungsri Research sees overall investment in construction rising by 4.9-5.2% annually over 2021 to 2023, driven by government spending that is expected to climb by 7.0% per year as work moves forward on megaprojects that are linked to the EEC development (many of which are joint partnerships with the private sector). This will include phase 3 of the Map Ta Phut Port development and the high-speed rail link connecting the areas 3 airports, for which ground has already been broken. The economic recovery will also help to boost spending on construction by the private sector, which should rise by 2.1% per year (Figure 15).

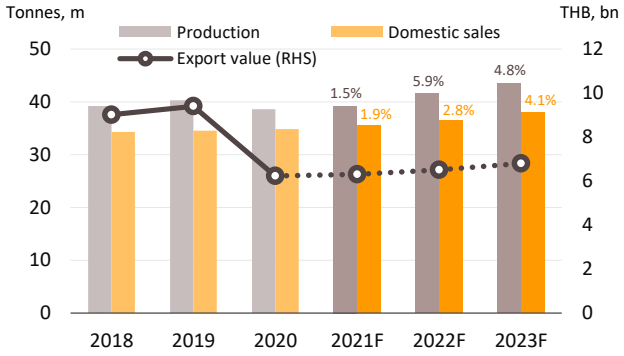
- **Outlook for producer and trader:** Business trends for players in the construction materials sector are outlined below.
  - **Cement: The quantity of cement distributed to the domestic market over 2021-2023 is forecast to rise by 3.0-4.0% per year** (Figure 16), supported by (i) heavier spending by the public sector on infrastructure construction, especially for work in the EEC (Table 4), and (ii) higher demand from the private sector as the real estate market revives, most notably for residential accommodation (the source of 45% of all demand for cement, Figure 17) in the Bangkok Metropolitan Region (Figure 18).

Figure 15: Construction Investment Forecast



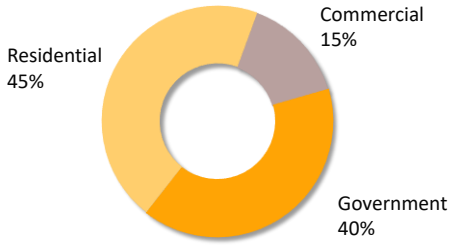
Note: forecast by Krungsri Research
Source: NESDC

Figure 16: Cement Industry Forecast



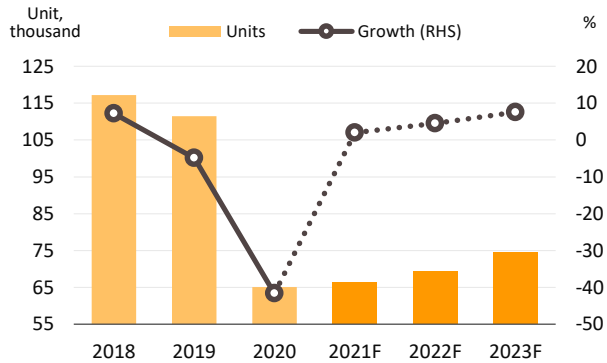
Source: OIE, forecast by Krungsri Research

Figure 17: Cement Demand By Segment



Source: SCG

Figure 18: New Launched Housing (BMR)



Source: AREA, Krungsri Research's forecast

7/ This includes HomePro and Siam Global House but because Thai Watsadu is not listed on the stock exchange, there are no accounts available for 1Q21 and so it is excluded from the calculations.

Table 4: Timeline of Ongoing and New Mega Projects Investment in Thailand

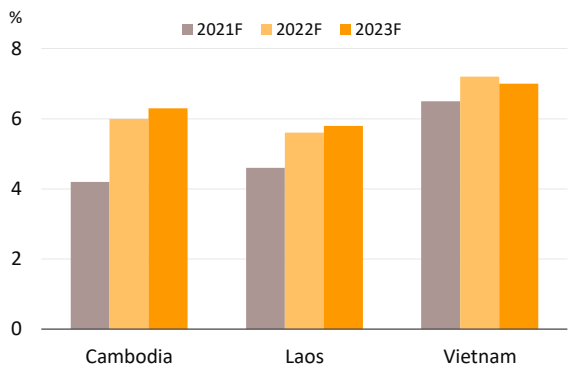
	Mega Projects of Transport Infrastructure Development	Investment Value (THB, bn)	2017	2018F	2019F	2020F	2021F	2022F	2023F	2024F	2025F	2026F	2027-2032F
1	Mega projects in EEC: High speed train for Bangkok to Rayong (connecting 3 airports: Donmueng-Suvarnabhumi-U Tapao)	179.4											
2	Mega projects in EEC: U-Tapao international airport	215.0											
3	Mega projects in EEC: Map Ta Phut deep sea port phase 3	86.0											
4	Mega projects in EEC: Laem Chabang deep sea port development phase 3	84.0											
5	Mega projects in EEC: Maintenance repair and overhual (MRO) at U-Tapao airport	4.3											
6	Dual track railway: Denchai-Chiang Rai-Chiang Khong	85.3											
7	Dual track railway: Khon Kaen to Nong Khai	26.7											
8	Dual track railway: Hat Yai to Padang Besar	6.7											
9	Dual track railway: Paknampho to Denchai	62.8											
10	Dual track railway: Jira to Ubon Ratchathani	37.5											
11	Dual track railway: Chumphon to Surat Thani	24.3											
12	Dual track railway: Surat Thani-Hat Yai-SongKhla	57.4											
13	Dual track railway: Denchai to Chiang Mai	56.8											
14	Dual track railway: Banpai-Mukdahan-Nakhon Panom	66.8											
15	Mass Transit System: Orange Line (Bang Khun Non to Thailand Cultural Center)	128.1											
16	Mass Transit System: Purple Line (Tao Pun to Rat Burana)	115.0											
17	Mass Transit System: Dark Red Line (Rangsit to Thammasat University)	6.6											
18	Mass Transit System: Red Line (Bang Sue to Hua Mak and Bang Sue to Hua Lamphong)	44.2											
19	Mass Transit System: Red Line (Taling Chan to Siriraj and Taling Chan to Salaya)	16.8											
20	Mass Transit System: Brown Line (Nonthaburi to Lam Sa Lee)	48.5											
21	Motorway: Bangkok to Mahachai	40.1											
22	Motorway: Hat Yai to Malaysian border	34.1											
23	Motorway: Ruangsit to Bang Pa In	25.1											
24	Motorway: Northern expressway (Kasetsart-Nawamin road: N2)	17.6											
25	Motorway: Rama III Road to Dao Khanong and Western Outer Ring road	31.2											
26	Motorway: Katu to Patong in Phuket	13.9											
27	Motorway: Nakhon Pathom to Cha am	79.0											
28	Light rail in Phuket	30.2											
29	Light rail in Chiangmai	107.2											
30	Light rail in Nakhon Ratchasima	13.6											
31	Light rail in Khon Kaen	13.9											
32	Regional Airport (Chiang Mai, Nakorn Srithammarat and Trang)	17.5											
33	Pier development (Tha Chang, Tha Tien, Samui island)	0.2											
34	Donmueng Airport Development Phase 3	37.6											
35	Dry port development at Khon Kaen	1.8											
36	Logistics centers at Nakorn Phanom	1.1											
37	Logistics centers in regional (border towns)	8.1											
38	Logistics centers in regional (main cities)	8.3											

Feasibility Study and Detail Design Approving and Bidding Construction

Source: The Office of Transport and Traffic Policy and planning (OTP, compiled by Krungsri Research (as of January 2021)

Having seen depressed conditions in 2020, exports are also forecast to return to growth over 2021-2023 as the economies of the CLV region rebound and investment rises, in particular in infrastructure and real estate (Table 5). The International Monetary Fund (IMF) sees strong GDP growth over the next 3 years for all the CLV countries (Figure 19). In addition, Thai players will be looking to expand into new overseas markets, including Australia and New Zealand. Moving against the trend, Myanmar's recent decent into severe political uncertainty will impact investment in both residential and non-residential construction and as such, growth in exports there will stall or go into reverse, while the condominium market in Yangon is now weighed down by a supply glut.

Figure 19: GDP Growth for CLV countries



Source: International Monetary Fund (IMF), as of April 2021

Table 5: Major Construction Investment Projects in the CLMV during 2021-2022

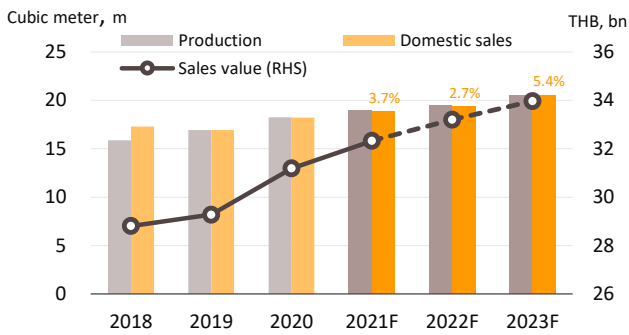
Country	Major features of the local market
Vietnam	**Transportation infrastructure megaprojects** are covered by Vietnam's development plan for 2021-2025. Projects are centered in Da Nang, the door to the South China Sea, and follows Vietnam's East-West Economic Corridor. This includes construction and development of a railway terminus and logistics center to connect the country's network of highways, the Lien Chieu deep-water port, a rail network that links to the airport, a trade center, tourist attractions, the Long Thanh International Airport, and several new hospitals. In addition, they are expanding a hi-tech industrial park and building public healthcare facilities.
Cambodia	**Major state-backed projects** include the expansion of Siem Reap and Sihanoukville airports, and building and upgrading public facilities (e.g., improving and expanding highway network, developing the metro system and upgrading the public sewerage system). **Projects undertaken by the private-sector** include developing residential accommodation, hotels, and restaurants, especially to meet the anticipated growth in tourism.
Myanmar	**Infrastructure projects** include the Yangon-Dala bridge and development of Dala New City. Public utility projects include the construction of power stations and road works, especially those that are in or would be linked to urban regions (e.g., Yangon and Mandalay). For **real estate developments**, to meet anticipated higher FDI inflows, they would include construction of 3 industrial estates and smart cities: (i) Korea-Myanmar Industrial Complex (KMIC); (ii) Yangon Amata Smart & Eco City, with Amata Corporation; and (iii) Myanmar-Singapore (Hlegu) Industrial Park. In addition, rising urbanization is encouraging developers to launch many hotel and residential projects (Currently, some projects are temporarily suspended, but if the political tension eases, the projects will be resumed).
Lao PDR	**Infrastructure development plans** are split into **Phase 1**, which involves laying 409 kilometers of rail track and building 165 bridges, and **Phase 2**, which includes building bus stations along the route from Vientiane to Tanalaeng goods terminus, and constructing a series of warehouse projects. In addition, there is ongoing construction work on major hydroelectric dams and residential accommodation projects. And there are plans to build several smaller power stations. Thai contractors are highly regarded in Laos, so Laos offers a lot of opportunities.

Note: Compiled from planned major public and private projects in the CLMV region.
Source: Krungsri Research, as of January 2021

- **Ready-mixed concrete: Through 2021-2023, the quantity of ready-mixed concrete distributed domestically should grow by 4.0-5.0% annually, or to around 16 million cu.m. per year** (Figure 20) thanks to a stronger demand for use in both public and private sector construction.
- **Construction steel: The domestic market sales volume should return to growth that will tend to grow 4.0-6.0% per year over 2021-2023** (Figure 21). This outlook will be supported by (i) an acceleration in the pace of public sector infrastructure construction work, much of which will be for road and rail networks, and (ii) the government's 'Made in Thailand' scheme, which specifies that by value or volume, at least 90% of all construction steel used in government-backed construction projects (excluding public-private partnerships) should be produced in Thailand.

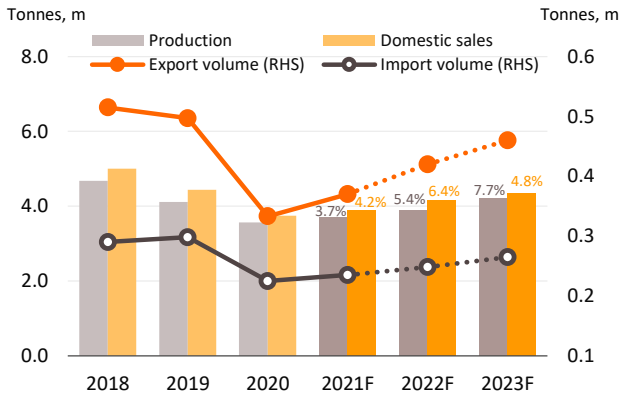
Exports are also forecast to revive in the coming period. (i) Spending on infrastructure construction will increase in many countries, including in Thailand's main export targets in the ASEAN zone. Following a drop in demand of 0.2% in 2020, Worldsteel thus sees global demand for steel rising by 5.8% to 1.874 billion tonnes in 2021 and then by another 2.7% in 2022 to 1.925 billion tonnes (Worldsteel, April 2021). (ii) Chinese production capacity has fallen by around 20% as a result of government efforts to manage problems with pollution that have resulted in the closure of many dirty foundries.

Figure 20: Ready-mixed Concrete Forecast



Source: OIE, Krungsri Research's forecast
Note: Ready-mixed concrete industry has no export.

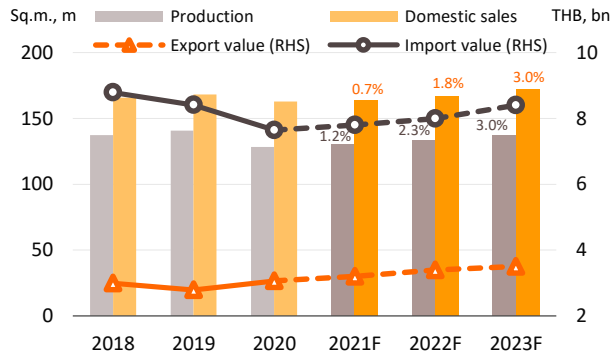
Figure 21: Construction steel Forecast



Source: OIE, Krungsri Research's forecast

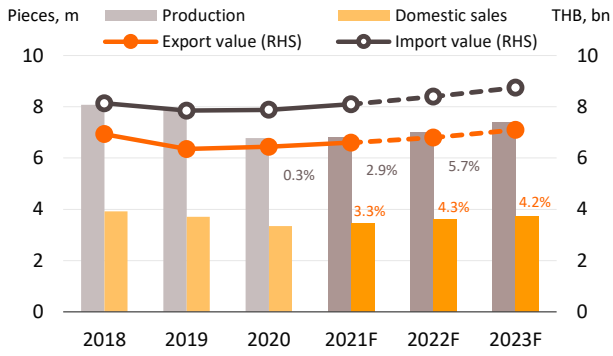
- **Ceramic tiles and sanitary wares: The forecast is for the domestic market to recover and for the quantity of goods distributed within Thailand to rise, especially in 2022 and 2023** when an uptick in work on government infrastructure megaprojects (Table 4) will help to lure crowding-in effects in private construction in high- and low-rise residential accommodation. The latter will be particularly concentrated along extensions to Bangkok's mass transit system and in suburban areas on the outskirts of the city. **Exports are likely to expand further with an improving outlook** for real estate markets in the region, boosted by stronger Chinese investment in residential and commercial property.
  - **Ceramic tiles:** Domestic sales volume is expected to rise by 2.0-3.0% per year, bringing total distribution to around 165-170 million sq.m. Export values should also climb by some 5.0% annually (Figure 22) on stronger demand from the US, Lao PDR and Cambodia (major export markets). However, the recovery in the Thai real estate market will in addition pull in more imports, especially from China and Vietnam.
  - **Ceramic sanitary ware: The domestic sales volume should expand by 4.0-5.0% per year**, bringing annual distribution up to 3.5-3.7 million pieces, while export value will grow at the slightly slower rate of 3.0-4.0% per year (Figure 23) as demand deepens in the main markets. This will include the US, where Forisk Research predicts a 7.3% increase in housing starts up to 1.481 million in a year, and which will then continue to grow through to 2027.

Figure 22: Ceramic tiles Forecast



Source: OIE, Krungsri Research's forecast

Figure 23: Sanitary wares Forecast



Source: OIE, Krungsri Research's forecast

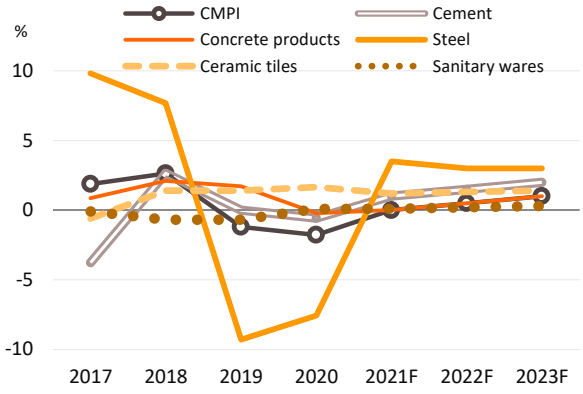
■ **Trader of construction materials:** Over 2021-2023, modern trade outlets should experience stronger growth than traditional distributors.

- **Modern trade operation: In the period 2021-2023, revenue would rise with recovery in the real estate market.** Growth will also be supported by a number of different business strategies, including: (i) reducing shop sizes to allow greater expansion into local communities; (ii) opening new types of outlets in cooperation with major manufacturers in order to better meet the particular needs of individual customer groups, for example, the joint venture between Boonthavorn and SCG, which have together launched a construction materials retail operation under the 'SCG Home Boonthavorn' brand that will expand into the regions; (iii) increasing the quantity of goods sold under their own brands as a means of controlling costs and increasing profits; (iv) increasing the range of distribution channels used to connect with customers, for example, extending the use of online channels and mobile applications; and (v) expanding the number of branches in the ASEAN region, for example HomePro's entry into the Malaysia market and the move by Siam Global House to establish a presence in Lao PDR and Cambodia.
- **Traditional trader: Over 2021-2023, revenue will tend to remain flat.** Players will benefit from an economic recovery that will help to lift the incomes of low- to mid-level segments of the market, especially in the provinces. But traditional outlets will struggle against strong competition from modern trade operations and manufacturers, which will increasingly distribute directly to construction companies.

Over the mid to long term, manufacturers will need to invest in overhauling their production processes and increasing their deployment of technology as they shift to the production of new, higher-quality goods. Players will want to develop new distribution channels that are better suited to meeting the needs of individual consumer groups (e.g., real estate developers or major building contractors), whether that be with regard to design, construction time or durability, while environmentally-friendly materials will also likely rise in importance. At the same time, distributors will need to adapt their services to match how consumer needs are evolving under the pressure of digitalization, for example by offering end to end services, expanding the range of online and offline contact points that connect distributors and consumers (i.e., engaging in omni channel marketing), and developing personalized marketing platforms.

In the next 3 years, prices for construction materials will tend to rise (Figure 24) because of: (i) stronger demand from the construction sector; (ii) government policy that specifically encourages the use of Thai-made products; (iii) an expected increase in the price of upstream imports, for example, of scrap and billet, which should rise with stronger global markets; and (iv) rising energy costs.

Figure 24: Growth of Construction Material Price Index



Note: CMPI = Construction materials price index
Source: Ministry of Commerce (MOC), forecast by Krungsri Research

◢ **Krungsri Research's view:** **Both producers and traders of construction materials will see better business conditions over the years 2021-2023** as the construction sector strengthens on (i) an increase in public sector construction both at home and in the broader region, especially in work on megaprojects; (ii) recovery in the real estate market, in particular in the Bangkok Metropolitan Region and in the bigger provincial centers; and (iii) the economic recovery that will come in the wake of the COVID-19 crisis. Given these factors, the market for both building materials and for home decorations should improve in the coming period.

■ **Producer:**

- **Cement:** Revenue is expected to rise in line with a return to investment in construction by the public and private sectors. In addition, cement manufacturers will also look to expand into new territories (e.g., Australia and New Zealand) to relieve their dependency on existing markets in the CLMV countries.
- **Ready-mixed concrete:** Revenue for manufacturers will grow with expansion in domestic construction, although large players that have expanded overseas will also see revenue rise from these markets.
- **Construction steel (bar and section):** Having been depressed for some time, revenue should begin to grow again on stronger demand and rising prices. However, Thai manufacturers will have to deal with stiff competition from low-cost imports from China and Vietnam.
- **Ceramic tiles and sanitary wares:** For players in this segment, revenue should rise in step with the better outlook for the real estate market, especially for residential accommodation. However, the supply of unsold housing stock remains high, and this may pose a risk to revenue, while players will also have to contend with the challenges posed by imports of low-cost goods from China.

■ **Trader:**

- **Modern trader:** Revenue for these operators will tend to increase as the economy returns to growth and businesses expand the number of outlets that they operate, extend the range of distribution channels that they utilize, and increase their involvement with own-brand products. Moreover, modern trade operations benefit from consumers' increasing preference for shops that carry a wide and comprehensive range of choices and that offer after-sales services such as home repairs and extensions.
- **Traditional trader: For wholesaler**, revenue growth is likely to be flat or improve slightly because of a likely increase in construction-related activity across the country. Players will face obstacles in the form of rising competition from modern trade outlets and manufacturers selling directly to their customers. **For retailer**, revenue is likely to remain flat, although sales of home decorations or goods used in home repairs and extensions may see some growth.

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