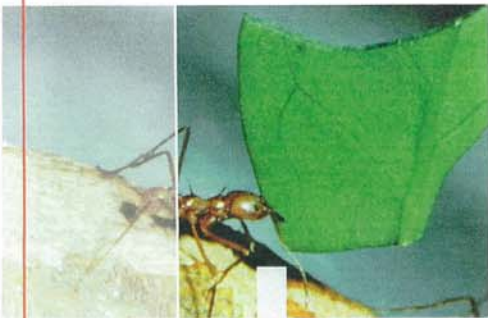


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Dynamics of new capacity

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Much has been made of the worldwide increase in overall cement manufacturing capacity. While there is a good deal of attrition that occurs given announced additions, there are those who are asking the question as to whether the trend in developing new capacity is real regarding the direction, velocity, and degree. Furthermore, given the sizeable capacity increases, to what significance is there that there are many new entrants to the cement industry? And just what do new entrants mean to the trend in the industry? This article attempts to make sense of these dynamics.

Among many other things, a new cement plant that is to be developed in the context of the cement industry in the 21st century should be characterised as a capital intensive long-term investment. The preliminary planning and coordination of effort that is required for developing new capacity is quite significant. There are few shortcuts that can be justified during the preliminary planning phase of developing a new cement plant without exposing the project to significant risks. Also, on many occasions the permitting and licencing of new operations can be problematic, as well as securing the range of legal rights to own and operate in some markets throughout the world. Long-standing cement manufacturing companies are very aware of the myriad of complex considerations necessary to be made in order to define the project as well as possible to eliminate as much risk as possible. However, on many occasions it is these preliminary planning and coordination efforts and challenges that will cause many new entrants to call off their efforts when they would otherwise be inclined to develop a new capacity. However, in some cases, there are new entrants that have the constitution, fortitude and wherewithal to further advance their efforts to develop new capacity or to acquire existing facilities.

Why add new capacity?

Reasons for developing new capacity are largely the same for existing cement producers as well as new entrants, which is the result of various market mechanics that are supply side driven. Importers in markets that have historically relied on existing cement producers and exporters have witnessed the fact that



transportation and logistics costs have dramatically impacted the delivered price of cement. Frequently, in such markets there is a tendency of importers and end user customers to conclude that it is the cement producers themselves that are realising net margins that reflect the rapid increase in delivered prices to the customer. Certainly, many cement manufacturers have posted healthy operating results, but these comparatively high financial returns are largely based on local sales, with only an estimated five per cent of global total demand being supplied by international cement trading. It is this comparatively small total worldwide percentage of cement supply

that serves as the pivotal dynamic on underserved markets, which currently in many cases are emerging markets and transitional economies.

Recently, many importers that have traditionally relied on export supplies have been largely caught off-guard as they have found that exporting countries have reduced if not completely banned exports, and or have invoked significant and steadily increased pricing. Accordingly, under these circumstances such underserved markets experience cement shortages and higher cement prices resulting in some one or more parties announcing plans to develop new facilities in such markets.

Long standing cement producers often wait to announce plans for new capacity additions after a good deal of thought and planning has been invested, and with priorities given as to trade-offs by and between alternative market locations, access to suitable raw materials, fuels and power, as well as a host of other considerations.

Greenfield plants

Announcements of new greenfield capacity development initiatives made by new cement industry participants tend to be made much earlier in the deliberative process, and definition and specifications tend to be somewhat less resolved as relates to raw materials, fuels, power and other essential components that must be in place. Another characteristic of greenfield cement capacity announcements by non-cement industry participants is that the majority of such announcements tend to be made in the emerging markets of transitional economies which have evidenced stronger economic growth and increased cement demand over more mature cement markets of the United States and the European Union. To be sure capital formation and accumulation has been rapidly increasing and expanding due to the comparatively significant rise in economic growth and development in many emerging markets. In concert with the increase in economic growth and capital formation, various international, multilateral and other fiscal authorities have resolved to finance the development of important strategic infrastructure projects in many emerging markets, adding to an increase in construction and development activity and, of course, an increased demand for the range of all building materials, especially cement.

Often the delivered price of cement to a customer in an emerging market has a significant transportation and handling cost component. Because delivered cement has in some cases increased to a prohibitive level in several emerging markets which threaten the continuation of the pace of development and construction, it is rational to conclude that governments, decision makers and entrepreneurs that have succeeded in mining, trading, banking and other sectors, would endeavour to develop new cement capacity. Voicing plans to develop



Source: Bogaert Architecture

Greenfield plants account for a significant extent of additional cement capacity

new or additional cement manufacturing is sometimes in response to a significant increase in the delivered price of cement, if not a significant decrease in availability and suppliers. Announcements of new capacity, therefore, often serve as indications that efforts are underway to replace imports with indigenous capacity. This tends to be very reactionary and the deliberations and decisions sometime tend to be compacted. Frequently, the host government will actively support and encourage the development of indigenous cement manufacturing capacity and such efforts result in the announcement of intentions to develop a new cement plant.

Making it to start-up

Which of these announced plants actually make it through to commissioning and operations is a result of many dynamics and in each case there are many various reasons why one consortium may be successful in developing and commissioning greenfield capacity, and why another consortium's efforts do not succeed.

One critical element that reduces the attrition rate of announcements of new capacity is the initial appreciation of the amount of money, time and effort required to properly develop the overall business plan for the conceptual plant by the sponsors of the project. Frequently, the importance of pre-project planning is relegated to a series of compromises as to the importance of geological and raw material surveys, fuel studies, working capital, budgeting and a host of other important considerations and contingencies. New entrants to the

cement industry sometimes justify a decision to forego these essential preliminary efforts with the notion that pre-project planning and coordination are not as essential as announcing intentions to develop a plant. Occasionally some initiatives of various project sponsors even attempt to implement development of a plant with insignificant preparation. Because of the steady increase in price with sometimes sharp spikes in prices, supplyside dynamics driving the need and justification for the new cement manufacturing capacity, project planning is not seen to be as imperative as proceeding with the construction of the plant.

Unfortunately, announcements of new cement plants by new entrants to the industry or in emerging markets that result in failure to achieve success worsen the effects on underserved cement markets. Projects that are announced, then fail result in creating the impression to capital markets, importers and cement suppliers and cement customers that new cement capacity will be delayed or for other inherent reasons such as investment conditions, political or country risk that the capital intensive long-term investments required for successful cement plant operations is unnecessarily burdened by too much investment risk, resulting in a less favourable outlook on the prospects of developing a greenfield plant.

Certainly, the current state of the international cement sector is what can be stated as one of unprecedented expansion, with much of this expansion being undertaken in China and India, and significant new capacity is being

developed by the major international cement manufacturers in other parts of the world such as the Middle East, North and West Africa. These well-grounded developmental initiatives that are, in fact, underway typically have a solid degree of project due diligence and preliminary preparation and multi-disciplinary coordination by the sponsors of the projects, because of the amount of supporting data that has been thoroughly accumulated and analysed regarding the development initiative, the project has a significantly improved degree of likelihood that the plant in question will be one that ultimately is commissioned and is able to supply its intended market with increased cement supply.

Another aspect of the current trend in developing new capacity is the degree to which the manufacturers and suppliers have been receiving orders for equipment. New cement plant construction, expansions and upgrades are taking place throughout generally all geographical regions around the world, including in mature markets such as the US and the European Union. Many equipment, vending and supply companies are very busy with existing orders from customers and have an extended waiting period for newly received orders. This fact should be taken into consideration when new or expanded cement plant capacity is announced and equipment companies need as much advance notice and information as possible from customers to avoid delays in equipment deliveries. In most cases announcements by long standing cement manufacturing companies have taken into consideration the lead time for scheduled equipment manufacture and delivery. However, in

some cases where announcements of new capacity have been made by new cement entrants the forecasted commissioning schedule is far too premature, especially in light of other preliminary project preparation requirements that must also be accomplished prior to the specification of process equipment, material handling and storage requirements, as well as a host of other critical issues to be resolved prior to adequately specifying the needs and functionality of the facilities and operations.

Because of these current circumstances, to a relevant degree, new entrants in the cement industry in certain emerging markets will continue to experience post announcement deferrals of greenfield cement capacity. This could mean that as delays in commissioning new capacity occur in certain indigenous markets, other new capacity in neighbouring markets will seek out customers and opportunities gradually controlling more and more of a market's demand for cement.

Cyclical trends

The trend for growth and expansion in the worldwide cement sector however, is real and is sustainable given the overall growth in population and what is seen as an increasing growth rate in demand for not only increased housing, but improved quality in the design and construction of housing and strategic infrastructure such as hydroelectric facilities, roads, bridges, dams and the like. And because cement is a basic commodity, various cement markets will undoubtedly be subject to peak-and-trough swings such as is currently the case in the US market in 2008 and 2009, as well as the European markets experiencing sluggish demand

for cement, while the markets in Asia, the Middle East, Africa and Latin America are more robust and stronger. It should also be noted that the trend in market volatility will continue to expand and contract throughout all cement markets on a forward looking basis regardless whether the markets could be considered mature or emerging.

Consolidation

Another widely watched trend in the cement industry has been that of consolidation among cement producers, as well as the trend to consolidate cement producers and ready-mix operations, along with sand and aggregates. This trend is seen emerging in the US and the European Union, and has not been seen as being established as a significant trend in emerging markets, but in all likelihood this dynamic may be seen to occur as and when other markets become more competitive from the standpoint of supply and sales.

Furthermore, since consolidation in the cement industry is a growing trend, and since there has been a significant increase in capital formation in certain emerging markets, it may be likely that acquisitions of piecemeal parts of cement companies become attractive to emerging market consortiums and individual plants or regional market share are acquired. The possibility also exists that one or more of these consortiums from emerging markets acquire comparatively large, long standing international cement companies that would result in aggregating markets and logistical synergies. While such a development has certainly not occurred yet it should be viewed in the context of industry consolidations of larger multinationals and other well-positioned cement plants and related facilities, which have characterised the international cement industry for some time.

Conclusion

As a result of the comparatively stronger economic growth rates and expansions in the emerging markets, whether these trends of the global cement sector cited herein will continue, is a matter of debate only, as to the direction, velocity and degree as changes in the industry will ebb and flow in concert with an ever changing world economy and growing population.

Getting plans past the engineering design stage is just one of many hurdles

