The information provided in this section and elsewhere in this prospectus with respect to the cement and concrete industries in the PRC and the concrete industry in Hong Kong is derived from various official, unofficial and private and, or, government publications unless indicated otherwise. Such information has not been prepared or independently verified by the company, the sponsor or any of their respective directors, affiliates or advisors. Such information may not be consistent with other information available within or outside the PRC and may not be accurate and should not be unduly relied upon.

INTRODUCTION

Cement is an essential material for building and civil engineering construction. The terms cement and concrete as used in common speech are often used interchangeably, when in fact they represent different materials. Cement acts as a bonding material which, when mixed with water, sand, aggregate and air, forms concrete. The average cement content in concrete is around 11% to 15% by volume. Cement is the "glue" which hardens and holds the sand and aggregates together to form concrete.

There are two basic types of cement. Non-hydraulic cement is unstable in wet environments and will not harden in water. Hydraulic cement is stable in water and can harden and set in wet environments. In 1824, Portland cement, a type of hydraulic cement which is the most widely used cement in construction, was patented.

TYPES OF CEMENT

The various types of cement are produced by blending different proportions of gypsum, blast furnace slag or other additives with clinker. There are four common types of cement including ordinary Portland cement, Portland cement, Portland blast furnace slag cement, and composite Portland cement. The application of the above four types of cement can be distinguished as follows:

Ordinary Portland cement (普通硅酸鹽水泥)

The main characteristic of ordinary Portland cement is its quick hardening ability. It develops a relatively strong initial compressive strength. It is therefore suitable for building works which have to be completed within a short period of time. In addition, it provides more resistance to abrasion which makes it suitable for the construction of roads and bridges.

Portland cement (硅酸鹽水泥)

Portland cement has all the characteristics of ordinary Portland cement except that it normally has a higher compressive strength than ordinary Portland cement. Portland cement contains not less than approximately 95% of clinker which makes it relatively expensive when compared to other types of cement. Therefore, Portland cement is used for a large variety of construction projects which require higher strength such as high rise buildings, airport runways and bridges.

Composite Portland cement (複合硅酸鹽水泥)

Composite Portland cement has similar characteristics to ordinary Portland cement except that it has a lower compressive strength than ordinary Portland cement. Composite Portland cement contains less clinker which makes it relatively cheaper compared to ordinary Portland cement and Portland cement. Therefore, composite Portland cement is used mainly for construction projects which require less strength such as buildings below thirty floors.

Portland blast furnace slag cement (礦渣硅酸鹽水泥)

The main characteristics of ordinary Portland blast furnace slag cement are its low percentage of expansion and the low heat after hardening which makes it suitable for building dams and piers. In addition, it has a relatively strong final compressive strength and has a high resistance to sulfate. This makes it suitable for the construction of structures which are consistently exposed to water erosion, such as bridges, piers and other underwater structures.

CEMENT MANUFACTURING PROCESS

Cement is composed principally of limestone and clay together with gypsum, blast furnace slag, sand, shale, iron ore and copper slag. These raw materials are combined in a multiple step manufacturing process.

The first step in cement manufacturing is to mine for raw materials. A source is located and a quarry is established to excavate and stockpile quantities of limestone, clay, shale, sand, iron ore and other necessary materials. These raw materials are crushed and grounded into various forms depending on their water content and the blending process to be used.

There are four different main processes in the making of cement: dry, semi-dry, wet and semi-wet. The choice of process is largely determined by the state of the raw materials. Regardless of the process utilised to manufacture cement, the raw materials must be blended so that they are chemically homogeneous. The ratios of the raw materials need to be maintained at the required levels to create high quality and consistent products.

Dry process

The raw materials are ground and dried to raw meal in the form of flowable powder. The dry raw meal is fed into a preheater or precalciner kiln or, more rarely, to a long dry kiln. The dry process is the most advanced and fuel efficient process, producing high quality product with less pollution. The dry process rotary kiln production method comprises the following steps:

Raw materials grinding and drying	crushed limestone, sandstone or clay and, or, iron ore are ground and the resulting raw meal is dried with hot gas generated from the kiln
Preheating	The raw meal is preheated to around 800 degrees celsius in a preheater with hot gas from the kiln
Precalcination	The raw meal is then heated by a burner in a precalciner to allow chemical disintegration before being fed into a rotary kiln

Calcinating and sintering	The disintegrated raw meal is further heated in a rotary kiln and sintered into clinker. The clinker is then cooled to room temperature by coolers
Cement grinding	The clinker is ground and blended with gypsum, blast furnace slag and, or, other additives to form cement

Semi-dry process

The dry raw meal is formed into rough pellets with water and fed into a grate preheater before entering the kiln. The semi-dry process rotary kiln was modified from a wet process rotary kiln and the semi-dry method comprises the following steps:

Raw materials grinding	limestone, sandstone or clay and, or, iron ore ground is crushed and the resulting raw meal is pelletised with water
Preheating	the raw meal pellets are fed into a grate preheater
Calcinating and sintering	the pellets are then fed into a long kiln equipped with crosses and sintered into clinker
Cement grinding	The clinker is ground and blended with gypsum, blast furnace slag and, or, other additives to form cement

Wet process

The raw materials are ground in water to form a pumpable slurry. The wet process may be chosen due to the high moisture content of the raw materials. The slurry is fed directly into the kiln. The wet process is more energy consuming and thus less cost effective. The wet process rotary kiln production method comprises the following steps:

Raw materials grinding	crushed limestone, sandstone or clay and, or, iron ore are mixed together with water and ground into a thin slurry by a raw mill
Preheating	the thin slurry is thickened into a dense slurry in water basins through precipitation before being homogenised in slurry tanks
Calcinating and sintering	the dense slurry is dried, preheated and burned to allow chemical disintegration before being sintered into clinker in a rotary kiln. The clinker is then cooled to room temperature by coolers.
Cement grinding	the clinker is ground and blended with gypsum, blast furnace slag and, or, other additives to form cement

Semi-wet process

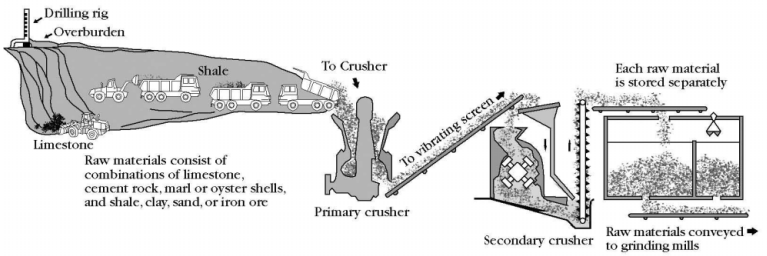
The excess water of the slurry is removed by a filter press. The filter cakes are then extruded into pellets and fed into either the kiln or filter cake drier for raw meal production. The steps of the semi-wet process are as follows:

Raw materials grinding	crushed limestone, clay and iron ore are mixed together with water and ground into a thin slurry by a raw mill
Dewatering	the thin slurry is dewatered in filter presses forming filter cakes which are extruded into pellets
Preheating	the raw meal pellets are fed into a grate preheater
Calcinating and sintering	the pellets are then fed into a long kiln equipped with crosses and sintered into clinker
Cement grinding	The clinker is ground and blended with gypsum, blast furnace slag and, or, other additives to form cement

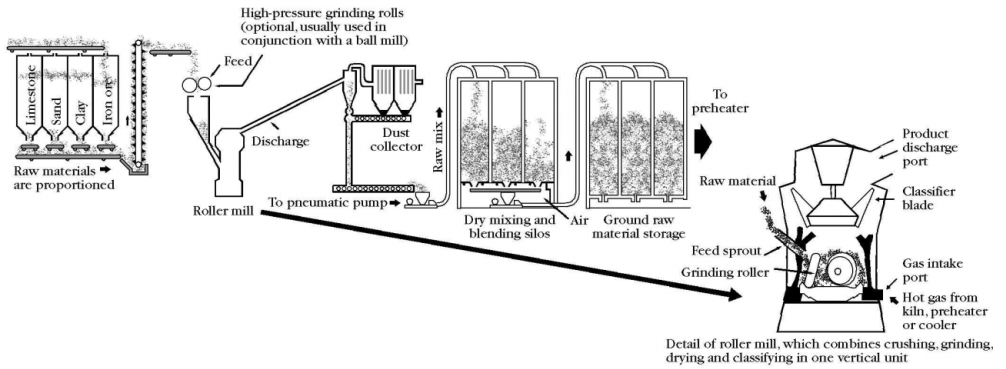
A step common to the various cement manufacturing processes is to fire the blended material to approximately 1,480 degrees celsius in a kiln. As the material moves through the kiln, certain elements are driven off in the form of gases. The remaining elements unite to form a new substance with new physical and chemical characteristics. The new substance, called clinker, is formed in pieces about the size of marbles.

The diagram below outlines the dry process:

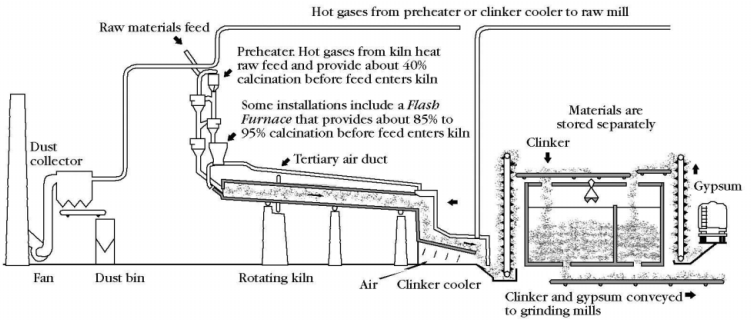
1. Stone is first reduced to 125 mm size, then to 20 mm, and stored.



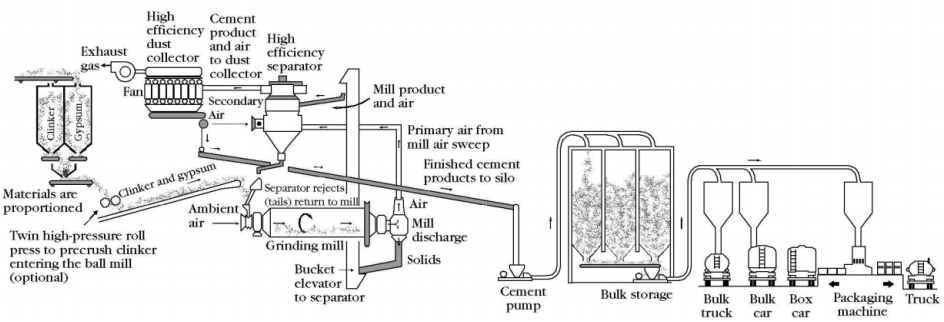
2. Raw materials are ground to powder and blended.



3. Burning changes raw mix chemically into cement clinker. Note four-stage preheater, flash furnaces, and shorter kiln.



4. Clinker with gypsum is ground into portland cement and shipped.



Source: Portland Cement Association

The clinker exits the kiln red hot and proceeds to a cooler. As the clinker is cooled down the hot air produced is fed back to the preheating and, or, drying processes. This hot air recycling process saves fuel and minimises costs.

Two types of kilns can be used in the firing process. The vertical kilns are cheaper to build and simpler in design. The construction and operation of vertical kilns are also simpler. Vertical kilns are quite common due to their low capital cost requirements and have been the preferred kiln type in the PRC. This type of kiln can be used with the semi-dry process and semi-wet process. Operating efficiency of vertical kilns is relatively low and it is generally believed that vertical kilns produce lower quality clinker. The rotary kiln uses advanced modern technology with the accompanying higher capital cost. Rotary kilns can be used with either the dry process, semi-dry process, wet process or semi-wet process. Rotary kilns are more efficient and provide easier monitoring for quality control and thus can produce high quality clinker.

After being cooled, the clinker is ground into powder and blended with gypsum. The final product is a fine grey powder commercially known as Portland cement which can be bagged or bulk shipped for use in making concrete.

Kilns can use various kinds of fuel, the most commonly used fuels are petroleum coke and coal. The choice of fuels depends primarily on availability and cost. Other commonly used fuels for heating kilns are natural gas, oil and different types of waste. Waste products such as used tires, rubber, paper and wood waste, plastics and sewage sludge have been used as alternative fuel sources.

Cement manufacturing, like other industrial processes, produces emissions during the manufacturing process. The emissions of the greatest concern are nitrogen oxides, sulphur dioxide and dust. The main releases from the production of cement come from the kiln system. Emissions can be minimised and controlled through proper management. The use of scrubbers, electrostatic precipitators and fabric filters works to further minimise the environmental and health impact of excessive emissions to a level considered to be safe. Other emissions of cement manufacturing include carbon oxides, volatile organic compounds, dibenzodioxins and dibenzofurans, metals, noise, odour and water.

PRC CEMENT INDUSTRY

The cement industry has achieved high growth and efficiency in 2002. Key economic statistics showed that, from January to October, the industry's gross production increased by approximately 9.2% from the same period in 2001 to RMB26.3 billion, product sales by approximately 19.6% to RMB23.0 billion and profit by approximately 15.0% to RMB836 million. In the construction material industry, cement products have become a key performance driver, ranking third in four consecutive years in terms of both gross production value and profit, with cement being at the top of the list.

Cement manufacturing ranks among the most capital intensive industries. The cost of opening a new plant is roughly equivalent to its first 3 years of turnover and the average industry earnings before tax and interest is approximately 10%. The high capital requirements and average return have set high barriers to new entrants.

Due to the low price-to-weight ratio of cement and its short shelf life, the cement market tends to be localised. The ability to export cement is limited as cement calcinations lose carbon dioxide over time. The costs involved in shipping cement usually outweigh any profits a manufacturer may gain. Trade in cement internationally is relatively low. In 1995, Asia accounted for approximately 60% of the

world's cement production by weight and the Asia cement industry continues to grow at a high rate. Growth in cement production in the PRC in the past decades was especially high compared to the rest of the world.

In 1995, it is estimated that there were around 8,000 to 9,300 cement plants in the PRC. The actual number is uncertain due to the fragmented nature of the industry and the small size of many plants. The locations of most cement manufacturing plants were scattered across the eastern provinces of the PRC. The provinces with the highest cement production were Guangdong, Shandong, Jiangsu, Zhejiang, Hebei and Henan. Approximately 90% of the cement plants in the PRC were small operations producing approximately 70% of the total production volume of cement in the PRC. These small plants employed old technology vertical kilns due to their lower capital investment and relatively simple operation and maintenance. The average annual production volume per plant in the PRC is approximately 35,000 tonnes.

In 1996, vertical kiln cement production represented approximately 80% of the total PRC production volume.

Cement in the PRC is graded and categorised on the basis of its compressive strength as measured in kg/cm^2. Varying grades of cement are suitable for different uses. Large buildings and structures which need to carry a high weight load require cement of higher compressive strength.

#325	compressive strength of 325 kg/cm^2 is commonly used in basic construction. It has a comparatively long setting time
#425	compressive strength of 425 kg/cm^2 is commonly used in high rise buildings, depending on the building's specifications, and used for city roads
#525	compressive strength of 525 kg/cm^2 is commonly used for infrastructure projects which require to support heavier loads such as airports, bridges, highways. It is also used for buildings with higher strength of load specifications for which #425 is insufficient
#625	compressive strength of 625 kg/cm^2 is commonly used for specialised purposes such as certain structures in power plants. It can also be used in situations where an extremely quick setting time is required

Cement prices were deregulated by the State Planning Commission, now the National Development and Reform Commission ("NDRC"), and the State Administration of Building Materials Industry, now reorganised into China Building Materials Industry Association ("CBMIA") and grouped under the State Owned Assets Supervision and Administration of the State Council (國務院國有資產監督管理委員會) ("SASAC"), in 1996. This permitted major producers to compete on a local level with many township enterprises, which offered more flexible pricing. Prior to this change of policy, 45 state-owned enterprises, which produced a large proportion of cement for priority infrastructure projects, were permitted "price-setting rights" in 1993. Wholesale highgrade rotary kiln cement was then priced at RMB235, equivalent to approximately HK$221.5 per tonne by state regulation. Production costs at the time were RMB245, equivalent to approximately HK$230.9 per tonne. Deregulation, however, did include measures that prevented producers from "monopolizing the market by cutting prices."

Since 1997, deflation and increased competition throughout China have pushed down cement prices. Prices in Shanghai have dropped more sharply than in any other area. Despite the increase in construction projects, cement prices have fallen 25% to US$36 per tonne, equivalent to approximately HK$280.8 per tonne for highgrade #525 bulk cement and US$38 per tonne, equivalent to approximately HK$296.4 per tonne for bagged cement. Cement prices vary regionally, though. For example, prices in Guangdong rose in late 1997 and early 1998 and were expected to continue to rise. By 2000, export prices were marked down to about US$20 per tonne, equivalent to approximately HK$156.0 per tonne on FOB terms.

Until recently, many cement producers sold their products on the basis of spot market prices, but some producers are starting to move toward more long-term contracts.

Despite the fact that there are medium and large cement enterprises located throughout the country, the supply and demand of cement vary by region according to differing development trends. A handful of provinces, including Shandong, Hebei, Liaoning, Henan, Anhui, Hunan, Guangxi, and Gansu have cement surpluses. Several other areas, including Beijing, Tianjin, Shanghai, Guangdong, Fujian, Hainan, Heilongjiang, Inner Mongolia, Xinjiang, and Hubei, have cement deficits. Other provinces have relatively balanced supply and demand.

There are about 150 cement producers using more advanced methods to produce cement in the PRC. In 2001, these producers had an estimated aggregate capacity of approximately 200 million tonnes, representing approximately 36% of the PRC's production. The table below lists some of these PRC cement producers together with their annual production.

Table 1 — Key PRC cement producers by province and output

Name	**Province**	**Annual output** *(million tonnes)*
Anhui Conch Cement	Anhui	8.0
Hebei Jidong Group	Hebei	4.5
Daewoo Shandong Cement (South Korea)	Shandong	2.5
Taiheiyo Cement (Japan)	Jiangsu, Liaoning	4.0
Bohai Group	Hebei	2.0
Chia Hsin Group (Taiwan)	Jiangsu	1.9
Mitsubishi Cement (Japan)	Shandong	1.2

Source: The Global Cement Report. Tradeship Publications, Ltd, 2001.

The Guangdong province is one of the PRC's wealthiest provinces and is one of the most productive provinces, representing the highest provincial gross domestic product contribution in 2001. The gross domestic product of the Guangdong province in 2001 was approximately RMB1,065 billion, equivalent to approximately HK$1,005 billion representing approximately 11.1% of the PRC's total gross domestic product in that year. Contribution from the construction sector in the Guangdong province was some RMB61 billion, equivalent to approximately HK$58 billion in 2001.

The contribution of the Guangxi ZAR to the nation's gross domestic product in 2001 was approximately RMB223 billion, equivalent to approximately HK$210.2 billion, representing approximately 2.3% of the PRC's total gross domestic product, growing from approximately RMB190 billion, equivalent to approximately HK$179.1 billion, representing approximately 2.4% of

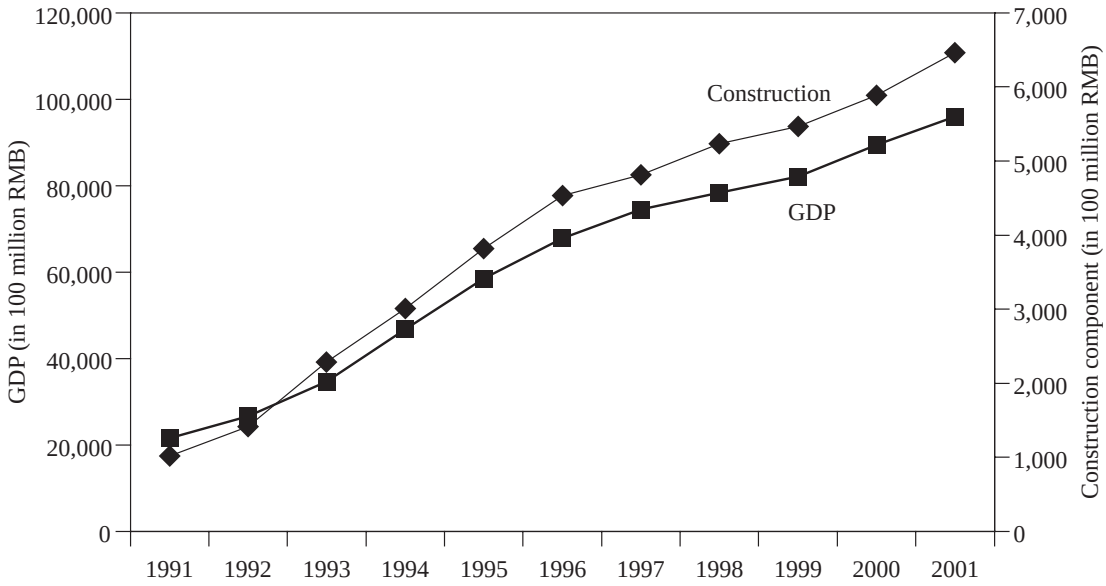
the PRC's total gross domestic product, in 1998. The construction sector in the Guangxi ZAR experienced growth of approximately 32.7% during the same period, representing some RMB14 billion in 2001, equivalent to approximately HK$13.2 billion in 2001.

Figure A — Cement factory locations and provincial share in the PRC

Source: China Statistical Yearbook 2000

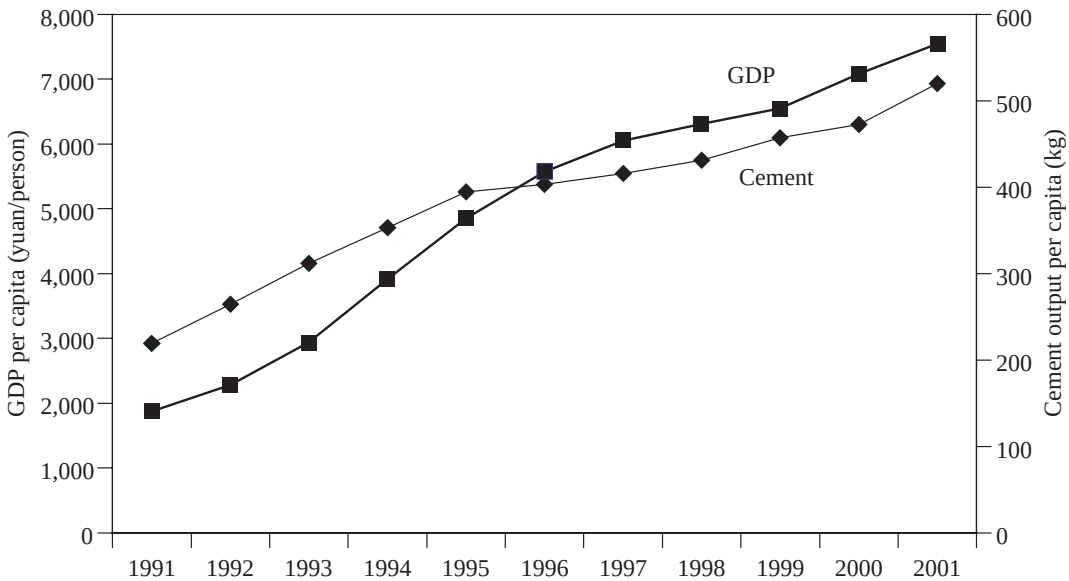
Approximately 40% of China's cement is used for basic infrastructure construction, 25% is used for maintenance and 33% is used in rural areas. Consumption is clearly linked to economic growth. With the Olympics to be hosted by Beijing in 2008 and the coming Expo 2010 in Shanghai, it is likely that these cities will see increased cement demand.

Figure B — PRC gross domestic product and construction component



Source: China Statistical Yearbook 2002

Figure C — GDP and cement output of the PRC per capita



Source: China Statistical Yearbook 2002

Political and legal framework

The central government of the PRC largely controlled production of cement throughout the 1970s. Much of this was done by direct or indirect control of key state-owned cement production enterprises. During the 1980s and 1990s, local and provincial governments asserted much greater

influence. Key government participants in the PRC's cement industry include NDRC, the Ministry of Construction, the State Environmental Protection Administration, and the Ministry of Finance. Most of these centralised organisations have offshoots at the local and provincial level.

The NDRC is the key government body overseeing the building material industry, including the cement industry, responsible for, among others, development and investment plans and approving large and important investment projects in the cement industry. CBMIA, supervised by the SASAC, is the self-regulated industrial association of the enterprises engaged in the industry of building materials, including cement. The SASAC, upon authorisation of relevant national governmental authorities, participates to draft development plans and products standards of various industries of building materials, including cement.

NDRC and its local delegates are responsible for approving new cement plant construction. The approval process can be time consuming and is subject to a number of requirements. At the highest level, the PRC has taken steps to streamline and modernise the bureaucracy, but change is occurring slowly.

The PRC's cement industry has also taken steps to reform itself from within. Much of the industry is moving toward a group or association structure. The PRC's cement industry is moving more slowly toward this structure than other industries in the PRC because the cement industry is more fragmented.

The State Environmental Protection Administration also plays a role in guiding equipment usage in the cement industry, although its power is limited. Provincial level environmental protection administrations are responsible for enforcing emission limits and can direct capital toward the most offensive polluters to upgrade their equipment.

Under the laws of the PRC, any investment project including, but not limited to, the construction of cement plants requires submission of a project proposal and a feasibility study for approval of the project by municipal, provincial, or national development and reform authorities depending on the total amount of the investment of the project. For foreign invested cement plants, in addition to the these approvals, approvals are also required from municipal, provincial and state authorities responsible for foreign investment, depending on the amount of the total investment of the foreign investment enterprise concerned. Each of the companies comprising the cement operations of the enlarged group has been established under the laws of the PRC and was granted approvals for their respective investment projects undertaken and establishment as a foreign investment enterprise.

According to the PRC legal advisers, only those goods and services which are very important to the national economy are subject to state imposed or guided prices. According to the government regulated price index issued in 2001, cement, concrete, coal and other materials which are important to the production of cement and concrete are not subject to state guided or imposed prices. Cement and concrete are also not subject to state control in terms of production volume and distribution.

THE PRC CONCRETE INDUSTRY

The PRC concrete industry is currently undergoing a massive consolidation with most small existing producers being gradually forced out from the market. The central government has adopted a number of policies with an aim to improving efficiency and eliminating products of inferior quality in the concrete industry. With rising concerns on environmental protection in the PRC, on site concrete mixing will soon be banned in urban areas of all provincial capitals, coastal open cities and major tourists destinations which will lead to a higher demand for ready mixed concrete. Therefore,

competitiveness of these small plants has been reduced by the need to produce higher quality concrete products with outdated equipment and to incur costs in implementing systems in order to comply with environmental protection regulations. According to a notice issued by Dongguan Construction Bureau on 12th February, 2003, all construction projects in Dongguan are required to use nearby ready mixed concrete. This will lead to demand of ready mixed concrete to increase. Also, restrictions on granting land for batching plants in Guangdong province have posed a major barrier to entry for other potential new entrants to the Guangdong concrete market.

Shenzhen Concrete is a member of 深圳市水泥及製品協會 (Shenzhen Cement and Related Products Association), a quasi-government association comprising of a total of 43 members who are concrete producers as well as a number of members who are cement producers. The association was established with an aim to promoting the concrete industry in Shenzhen. A forum is regularly held where members of the association meet. The association also compiles industry statistics and prices of building materials on a monthly basis in conjunction with construction and construction material companies and property developers in Shenzhen.

The demand for concrete has increased as a result of the rapid development of the concrete market. The directors of Dongguan Concrete estimate that the size of the concrete market in Dongguan ranks closely behind that in Guangzhou and Shenzhen with an annual usage of approximately 3,000,000 cubic metres. Owing to the rapid development of cities along the southeast coast of China, it is expected that concrete usage in Dongguan will continue to increase at a rate of approximately 15% per annum. According to a notice issued by Dongguan Construction Bureau on 15th April, 2003, there are six concrete manufacturers in Dongguan, including Dongguan Concrete, and ten other batching plants are under construction. Dongguan Construction Bureau also stated in the notice that they will not accept any new application for construction of batching plant in Dongguan for the time being.

HONG KONG CONCRETE INDUSTRY

Concrete is one of the most fundamental material in modern construction. Concrete is made from a mixture of cement, sand, aggregates, water and other additives which forms a pourable material which begins to harden in two to three hours. Concrete has many uses including the construction of concrete buildings, precast modular paving stones, pre-stressed concrete railroad ties (replacing wood), concrete bridges and tunnels, highway median barriers, highway sound barriers, paved highways and highway shoulders (replacing less permanent and costly asphalt), parking garages and coloured pavements.

The demand for concrete is closely related to the level of the building and construction activity. In 2001, construction expenditure totalled about HK$113.9 billion, representing approximately 8.8% of Hong Kong's gross domestic product for that year, of which HK$40.5 billion related to private sector sites and HK$41.8 billion to public sites and HK$31.7 billion related to others. Private sector work involves residential, commercial and industrial buildings, together with some privately financed infrastructure facilities. Public sector work involves, among others, infrastructure projects, government buildings and public housing.

Set out below is a table on the gross value of construction work performed by main contractors in nominal terms in Hong Kong for the past five years ending 31st December, 2001.

	Private sector *(note 1)* *HK$ million*	**Public sector** *(note 2)* *HK$ million*	**Others** *HK$ million*	**Total** *HK$ million*
1997	56,837	42,146	32,518	131,501
1998	61,233	40,742	31,341	133,316
1999	44,380	49,173	32,884	126,437
2000	39,094	50,817	32,161	122,072
2001	40,497	41,793	31,696	113,986

Notes:

(1) Includes projects commissioned by private developers. Projects under the Private Sector Participation Scheme are also included.

(2) Includes projects commissioned by the Hong Kong government, Mass Transit Railway Corporation, Kowloon-Canton Railway Corporation and Airport Authority. Projects under the Home Ownership Scheme, which are commissioned by the Housing Authority, are also included.

Source: Hong Kong Census and Statistics Department

As shown in the table, there has been a contraction in building and construction works in Hong Kong, in particular in the private sector. In 2002, the government announced a number of measures to address the problem of oversupply in the private housing sector which in the foreseeable future is likely to result in a decline in the proportion of private construction sector. Accordingly, the directors expect that, in the short term, the performance of the group will be largely dependent on being awarded contracts in the public sector, in particular, contracts for infrastructure projects in Hong Kong.

The Hong Kong government cited the importance of investments in infrastructure for the future economic development of Hong Kong. The government is committed to invest in infrastructure in order to maintain Hong Kong's competitiveness. The Hong Kong government has announced the following various key focus areas for development including Victoria Harbour, transportation, urban renewal, ports, Hong Kong International Airport, new towns and environmental and pollution control.

Victoria Harbour

The shore line of Victoria Harbour is to be significantly changed with the building of a new cross harbour rail tunnel and other roads, the redesigning of areas along the harbour from Central to Wanchai, and the redevelopment of the old Kai Tak Airport site into a new town with an estimated population of 260,000. A world class stadium is planned together with a metropolitan park, a cruise terminal and other commercial, cultural and recreational facilities.

Transport

The Hong Kong government has also released various transport proposals providing for changes to transport networks and services to meet the current economic restructuring needs and the fusion with the economy of Pearl River delta region.

Extensive railway networks expansion is also being planned, which upon completion, will increase the service catchment area to approximately 70% of the Hong Kong population. The MTR Tseung Kwan O Extension was completed in September 2002 and within the next five years, railways linking Tuen Mun, Ma On Shan, East Tsim Sha Tsui, Penny's Bay and Lok Ma Chau are planned to be completed, aggregating to an estimated cost of approximately HK$93 billion. Preparation has also begun on plans to build railways which will improve transportation links between areas such as Sha Tin, Central and southern Kowloon. The railway network will expand to include an express service from Hong Kong to Guangzhou, PRC.

Roadway construction projects with an estimated cost of over HK$44 million are being planned. Roads connecting Hong Kong to Shekou, PRC are to be completed in 2005/2006. Other roads linking Cheung Sha Wan, Sha Tin, Tsing Yi, North Lantau, So Kwun Wat and Lam Tei are to be completed at various times around 2010.

Urban renewal

The Hong Kong government has established the Urban Renewal Authority to accelerate the pace of urban renewal. The Urban Renewal Authority will implement a 20 year urban renewal programme which involves approximately 225 urban renewal projects. The nine target areas which have already announced including Kwun Tong, Ma Tau Kok, Sai Ying Pun, Sham Shui Po, Tai Kok Tsui, Tsuen Wan, Wanchai, Yau Ma Tei and Yau Tong.

Port

To enhance competitiveness and reinforce Hong Kong as the most efficient and one of the busiest container ports in the world, a new Container Terminal 9 is being built on Tsing Yi Island opposite the existing eight terminals in Kwai Chung. The new terminal will have six berths with a design capacity to handle more than 2.6 million standard units a year. It is expected that the whole terminal will be completed by 2004.

Hong Kong International Airport

The Hong Kong International Airport in Chek Lap Kok opened in July 1998. The airport was voted as the World's Best Airport in 2002 and one of the Top 10 Construction Achievements of the 20th Century. In order to meet anticipated demand, the airport will substantially expand its annual capacity from 45 million passengers and 3 million tonnes of cargo to 87 million passengers and around 9 million tonnes of cargo. An international exhibition centre and commercial centre are also planned to be built which will cover an area of approximately 57 hectares.

New Towns

The Hong Kong government has planned to expand a number of new towns, including Tseung Kwan O, Ma On Shan, North Lantau Island. Further development is also being planned for the building of Disneyland Hong Kong.

Environmental and pollution control

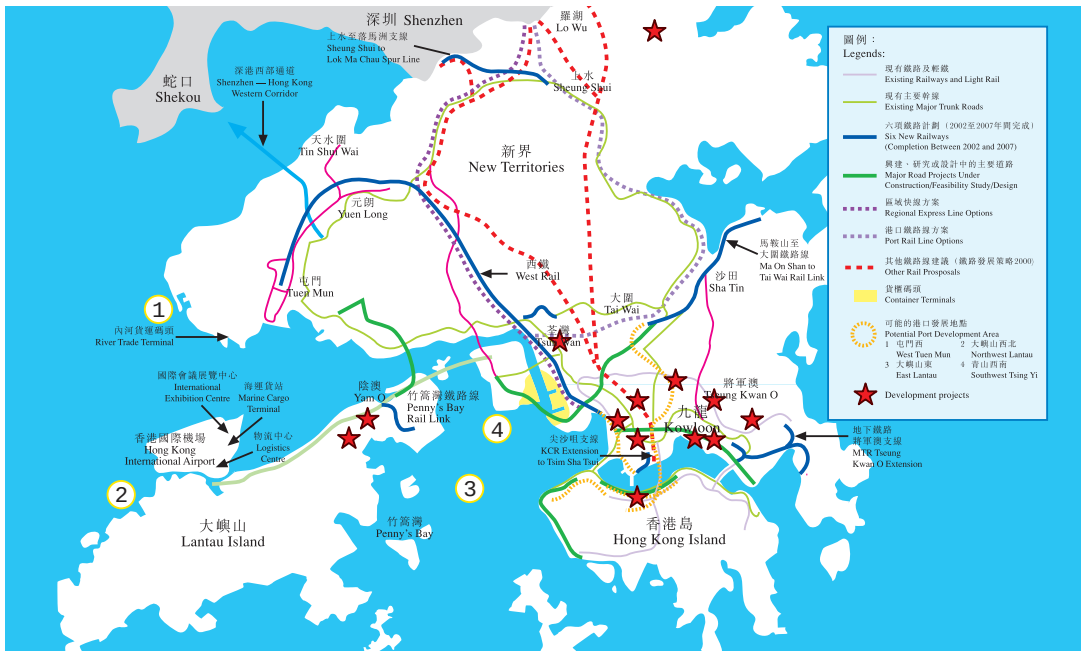
The Hong Kong government is increasingly conscious of environmental issues. The Hong Kong government has released the Harbour Area Treatment Scheme to improve water quality in Victoria Harbour. The 23.6 km tunnel conveyance system and a chemically enhanced sewage treatment works at Stonecutters Island have already started to operate.

Table 2 — Scheduled completion time of major infrastructure projects in Hong Kong

Project name	Estimated completion
West Rail	2003
Airport logistics centre at Chek Lap Kok	2003
Ma On Shan to Tai Wai Rail Link	2004
East Rail Tsim Sha Tsui Extension	2004
Container Terminal 9	2004
Science Park Phase I	2004
Tung Chung Cable Car	2005
Disneyland	2005
Penny's Bay Rail Link	2005
Science Park Phase II	2005
Shenzhen Western Corridor and Deep Bay Link	2005/06
Conversion of the former Marine Police Head quarters into a tourism-themed development	2006
New Central Waterfront	2007
Central Government Complex and new Legislative Council Building	2007
Sheung Shui to Lok Ma Chau Spur Line	2007
Route 9 (Cheung Sha Wan to Sha Tin Section)	2007
Route 9 (Tsing Yi to Cheung Sha Wan Section)	2007/08
Cruise Terminal at Kai Tak Point	2008 (Completion date under review)
Route 10 (Southern Section from North Lantau to So Kwun Wat)	2008
West Kowloon Development	2008 (First group of the new buildings)
Sha Tin to Central Link	2008–2011
Island Line Extensions	2008–2012
Kowloon Southern Link	2008–2013
Route 10 (North Section from So Kwun Wat to Lam Tei)	2010 or after
New Wan Chai Waterfront	2010
Central Kowloon Route	2010
Trunk Road T2	2010
Central Wanchai Bypass and Island Eastern Corridor Link	2011
Northern Link	2011–2016
Southeast Kowloon Development	2016 (Full development)
Urban Renewal Authority's 225 redevelopment projects	Over next 20 years
Next generation new towns (Fanling North, Kwun Tung North, Hung Shui Kiu)	Being studied
Regional Express Line	Being studied
Route 7–Section between Kennedy Town and Aberdeen	Being studied
Port Rail Line	Being studied
New container terminals	Being studied

Source: Hong Kong government

Figure D — Major transport and logistics centre developments



Source: Hong Kong government

The concrete industry in Hong Kong is cyclical and the directors believe that it consists of some 16 primary producers. An industry organisation called The Concrete Producers Association of Hong Kong Limited ("CPA") was formed in 1993 and its main functions are to provide technical support to local suppliers, promote concrete business and also provide a forum for the members of the association to discuss important issues. Currently, there are eleven members in the CPA and the Redland group is a member of the CPA.

Other than batching plants situated in industrial buildings, it is also quite common for concrete producers in Hong Kong to acquire or lease agriculture land in the New Territories to erect batching plants provided that relevant waiver is obtained from the Lands Department for such use. Alternatively, the concrete producers may obtain a short term tenancy directly from the government which will permit the concrete producers to occupy government land for concrete production purpose. No specific ordinances have been enacted in Hong Kong with the sole aim to imposing any special restrictions or requirements on concrete producers, their operations and locations of their production facilities. Moreover, concrete producers in Hong Kong are subject to, among other things, general laws governing the operation of any plant facilities such as Water Pollution Control Ordinance (Cap. 358 of the Laws of Hong Kong), Waste Disposal Ordinance (Cap. 354 of the Laws of Hong Kong), Air Pollution Control Ordinance (Cap. 311 of the Laws of Hong Kong) and Factories and Industrial Undertakings Ordinance (Cap. 59 of the Laws of Hong Kong).

Since 1998, the concrete industry in Hong Kong contracted following the decrease in construction projects as a result of poor economic conditions in Hong Kong. According to the CPA, the sales and price of concrete in 2002 were approximately 5.6 million cubic metres and HK$345 per cubic metre, respectively. The directors believe the concrete industry will stabilise following a reduction in capacity, planned government infrastructure projects and associated private sector construction.

Table 3 — Sales volume and price of concrete in Hong Kong

	1998	1999	2000	2001	2002
Sales (in thousands of cubic metres)	9,408	8,794	8,384	8,000	5,600
% growth	(4.37)%	(6.53)%	(4.66)%	(4.58)%	(30.00)%
Price per cubic metre	665	653	645	485	345
% growth	(0.45)%	(1.80)%	(1.23)%	(24.81)%	(28.87)%

Source: Estimated by Concrete Producers Association

Public sector building and construction contracts in Hong Kong are put to open tender to a list of approved contractors, with the government then awarding the contracts by reference to tender prices and other relevant factors including proven abilities of the bidders who must be able to demonstrate to the government's satisfaction that they will be able to meet the government's financial criteria and requirements as to completion dates and quality.

The future growth of the building and construction industry in Hong Kong will depend primarily upon the continued availability of major construction projects: the nature, extent and timing of such projects will, however, be determined by the interplay of a variety of factors and, in particular, the government's infrastructural planning and the general prospects for Hong Kong's economy.

Concrete is essential to most construction activities in Hong Kong, as such the concrete business is generally greatly influenced by the general state of the building and construction industry and also by certain factors peculiar to such operations. Principal among these are the relative costs of production and the price differentials subsisting between the various types of concrete available in Hong Kong, government procedures affecting the production of concrete such as environmental regulations and town planning.